Attachment I:
Regional Healthcare Partnership (RHP) Planning Protocol

I. PREFACE

A. Delivery System Reform Incentive Payment Program

Special Terms and Conditions (STC) 45 of the Demonstration authorizes Texas to establish a Delivery System Reform Incentive Payment (DSRIP) program. Initiatives under the DSRIP program are designed to provide incentive payments to hospitals and other providers for investments in delivery system reforms that increase access to health care, improve the quality of care, and enhance the health of patients and families they serve.

The program of activity funded by the DSRIP shall be based on Regional Healthcare Partnerships (RHPs). Each RHP shall have geographic boundaries and will be coordinated by a public hospital or local governmental entity with the authority to make intergovernmental transfers. The public hospital or local governmental entity shall collaborate with hospitals and other potential providers to develop an RHP Plan that will accelerate meaningful delivery system reforms that improve patient care for low-income populations. The RHP Plans must be consistent with regional shared mission and quality goals of the RHP and CMS's triple aims to improve care for individuals (including access to care, quality of care, and health outcomes); improve health for the population; and lower costs through improvements (without any harm whatsoever to individuals, families, or communities).

B. RHP Planning Protocol and Program Funding and Mechanics Protocol

In accordance with STC 45(a) and 45(d)(ii)(A) & (B), the RHP Planning Protocol (Attachment I) defines the specific initiatives that will align with the following four categories: (1) Infrastructure Development; (2) Program Innovation and Redesign; (3) Quality Improvements; and (4) Population-focused Improvements. The Program Funding and Mechanics Protocol (Attachment J) describes the State and CMS review process for RHP Plans, incentive payment methodologies, RHP and State reporting requirements, and penalties for missed milestones.

Each RHP must submit an RHP Plan that identifies the projects, outcomes, population-focused objectives, and specific milestones and metrics in accordance with these attachments and STCs.

C. Organization of "Attachment I: RHP Planning Protocol"

Attachment I has been organized into the following sections:

I. Preface
II. Key Principles
III. Required RHP Plan Elements
IV. Format of this Document
V. Category 1 Infrastructure Development
VI. Category 2 Program Innovation and Redesign
VII. Category 3 Quality Improvements
VIII. Category 4 Population Focused Improvements
Appendix: CMS-Provided Key Elements for Learning Collaboratives and Continuous Quality Improvement

II. Key Principles

A. Responding to the Needs and Challenges of the Texas Health Care Delivery System

Texas faces many unique health challenges. For example, rates of obesity and chronic diseases are some of the highest in the nation, and many Texans do not have a regular source of care to help manage and prevent these diseases. Many Texans do not receive regular treatment for mental health issues, and as a result, mental health problems account for a large percentage of admissions to hospitals that could have been avoided. These challenges and many more disproportionately affect safety net providers who serve Medicaid beneficiaries and the uninsured.

DSRIP provides an unprecedented opportunity to improve patient care for low-income populations by incentivizing delivery system reforms that increase access to health care, improve the quality of care, and enhance the health of patients and families they serve. These investments not only contribute to the triple aim, but they can also help position safety net providers for the emerging healthcare market, in which data-based quality performance and cost-efficiency drive competition.

This protocol presents a "menu" of evidence-based projects that can be incentivized through DSRIP. These projects were selected by HHSC and CMS to have the maximum impact on the health system challenges facing Texas.

Since health system reform requires regional collaboration, providers must select projects that relate to the community needs identified by the RHP, and RHPs must engage stakeholders in the development of RHP plans. The requirements for the community needs assessment and stakeholder engagement are described in section 10 of the Program Funding and Mechanics Protocol (Attachment J).

B. Interconnection and Shared Orientation of Projects

DSRIP activities are divided into four categories, which are interrelated and complementary:

- Category 1 Infrastructure Development lays the foundation for delivery system transformation through investments in technology, tools, and human resources that will strengthen the ability of providers to serve populations and continuously improve services.
- Category 2 Program Innovation and Redesign includes the piloting, testing, and replicating of innovative care models.
- Category 3 Quality Improvements includes outcome reporting and improvements in care that can be achieved within four years.
- Category 4 Population-focused Improvements is the reporting of measures that demonstrate the impact of delivery system reform investments under the waiver.

Multiple, complementary initiatives will be occurring in the same RHP simultaneously, reinforcing each other in the transformation of care delivery. The selected projects for the RHP plan should possess the following qualities:

- While they are highly related projects, each improvement project is distinct;
- All of the proposed projects are oriented to creating more effective and coordinated care provision; and
- There is a coordinated approach to supporting improved patient experience, population health, quality improvement, and cost control.

In order to achieve meaningful change by the end of the demonstration, every performing provider must link each of its Category 1 and 2 projects to a related Category 3 outcome. The outcomes shall assess the results of care experienced by patients, including patients' clinical events, patients' recovery and health status, patients' experiences in the health system, and efficiency/cost. Additional information about category 3 outcomes and the setting of outcome targets is provided in section 11.d of the Program Funding and Mechanics Protocol (Attachment J).

C. Fostering Continuous Quality Improvement

In order to achieve and sustain success at responding to community needs, providers and communities will need to apply best practices in continuous quality improvement. Most notably, learning collaboratives are essential to the success of high quality health systems that have achieved the highest level of performance. Performing providers are strongly encouraged to form learning collaboratives to promote sharing of challenges and testing of new ideas and solutions by providers implementing similar projects in each RHP. These regionally-focused learning collaboratives also can inform the learning collaborative conducted annually during DYs 3-5 to share learning, experiences, and best practices acquired from the DSRIP program across the State. For the Key Elements for Learning Collaboratives provided by CMS, please see Attachment 1.

RHPs can be a natural hub for this type of shared learning by connecting providers who are working together on common challenges in the community, but providers and RHPs are also encouraged to connect with others across Texas to form a "community of communities" that can connect on an ongoing basis to share best practices, breakthrough ideas, challenges and solutions. This will allow regions to learn from each other's challenges and develop shared solutions that can accelerate the spread of breakthrough ideas across Texas.

III. Required Plan Elements

Based on the projects and measures listed in this Protocol and the requirements for plan development defined in the *Program Funding and Mechanics Protocol* (Attachment J) , RHPs will submit five-year RHP plans that describe: (1) the reasons for the selection of the projects, based on local data, gaps, community needs, and key challenges; (2) how the projects included in the plan are related to each other and how, taken together, the projects support broad delivery system reform relevant to the patient population; and (3) the progression of each project year-over-year, including the specifics and exact data source needed per project per milestone per metric per year.

Each RHP must submit an RHP Plan using a State-approved template that identifies the projects, objectives, and specific milestones, metrics, measures, and associated DSRIP values. The plan must meet all requirements pursuant to Standard Terms and Conditions (STCs) 45 and 46 and follow the format outlined in the *Program Funding and Mechanics Protocol* (Section III, Key Elements of Proposed RHP Plans).

Organization of Projects and Measures
The RHP five-year plan will include sections on each of the four categories included in this Protocol.

Categories 1-2 Requirements: For each project selected from Category 1 and 2, RHP Plans must include a narrative that has the following subsections:

- Identifying Information: Identification of the DSRIP Category, name of the project, project element, and RHP Performing Provider name and Texas Provider Identifier (TPI) involved with the project. Each project shall be implemented by one Performing Provider only.
- Project Goal: The goal(s) for the project, which describes the challenges or issues of the Performing Provider and brief description of the major delivery system solution identified to address those challenges by implementing the particular project; the starting point of the Performing Provider related to the project and based on that, the 5-year expected outcome for the Performing Provider and the patients.
- Rationale: As part of this subsection, each Performing Provider will provide the reasons for selecting the project, milestones, and metrics based on relevancy to the RHP's population and circumstances, community need, and RHP priority and starting point with available baseline data, as well as a description of how the project represents a new initiative for the Performing Provider or significantly enhances an existing initiative, including any initiatives that may have related activities that are funded by the U.S. Department of Health and Human Services. These projects should be data-driven and based on community needs and local data that demonstrate the project is addressing an area of poor performance and/or disparity that is important to the population (i.e. a provider selecting a project to implement a chronic care model for diabetes should discuss local data such as prevalence of diabetes in the community and rates of preventable admissions for diabetes and describe why diabetes is an important health challenge for the community).
- Related Category 3 Outcome Measure(s): The Performing Provider will indicate the Category 3 Outcome Measure(s) and reasons/rationale for selecting the outcome measure(s). The rationale should be data-driven, including:
    - Data supporting why these outcomes are a priority for the RHP;
    - Validated, evidence-based rationale describing how the related Category 1 or 2 project will help achieve the Category 3 outcome measure selected; and/or
    - Explanation of how focusing on the outcomes will help improve the health of low-income populations.
- Relationship to Other Projects and Measures: A description of how this project supports, reinforces, enables, and is related to other Category 1 and 2 projects and Category 4 population-focused improvement measures within the RHP Plan
- Milestones and Metrics Table: For each project, RHP Plans shall include milestones and metrics adopted in accordance with this Protocol. In a table format, the RHP Plan will indicate by demonstration year when project milestones will be achieved and indicate the data source that will be used to document and verify achievement.
    - For each project from Category 1 and 2, the Performing Provider must include at least one milestone based on a Process Milestone and at least one milestone based on an Improvement Milestone over the 4-year period.
    - Since Quality Improvement (QI) activities are essential to the provider's success implementing Category 1 and 2 projects and achieving Category 3 outcome measures, Quality Improvement (QI) is a core project component for all project options for most Category 1 and 2 projects (except 1.1 Expand Primary Care Capacity, 1.2 Increase

Training of Primary Care Workforce, 1.9 Expand Specialty Care Capacity, 1.12 Enhance Service Availability, and 1.14 Develop Workforce Enhancement). Category 1 and 2 project areas contain recommended process milestones designed to support providers that are engaging in meaningful quality improvement work to improve performance and achieve outcomes. Performing Providers are strongly encouraged to include process milestones reflecting their Quality Improvement activities for all 4 years of the DSRIP.
    - For each milestone, the estimated DSRIP funding must be identified as the maximum amount that can be received for achieving the milestone. For each year, the estimated available non-federal share must be included and the source (Intergovernmental Transfer (IGT) Entity) of non-federal share identified.
- Relationship to Other Providers' Projects in the RHP: If applicable, a list of other providers in the RHP that are proposing similar projects and will be members of a learning collaborative to support this project and share best practices, new ideas, and solutions across the RHP.
- Plan for Learning Collaborative: If applicable, describe plans for participating in a RHP-wide learning collaborative with other providers with similar projects. Describe how the learning collaborative will promote sharing of challenges and testing of new ideas and solutions between providers implementing similar projects.

Category 3 Requirements: Category 3 involves outcomes associated with Category 1 and 2 projects. All Performing Providers (both hospital and non-hospital providers) shall select outcomes and establish improvement targets that tie to their projects in Categories 1 and 2. RHP Plans must include:

- Identifying Information: Identification of the Category 3 outcomes and RHP Performing Provider name and Texas Provider Identifier that is reporting the measure.
- Narrative Description: Each Performing Provider shall provide a narrative describing the Category 3 outcomes.
- Outcomes Table: In a table format, the RHP Plan shall include the outcomes selected by each Performing Provider.
    - For each outcome, the RHP Plan may include process milestones described in 11.d.ii of the *Program Funding and Mechanics Protocol* in DY 2-3 only that support the development of the outcomes.
    - For each outcome, the RHP Plan shall include improvement targets beginning no later than DY 4. In DY 4 and 5, incentive payments will only be received for achieving improvement targets (pay-for-performance) in Category 3.
    - For each milestone or outcome improvement target, the estimated DSRIP funding must be identified as the maximum amount for achieving the milestone or outcome target. For each year, the estimated non-federal share must be included and the source (IGT Entity) of non-federal share identified.

Category 4 Requirements: Category 4 involves population-focused improvements associated with Category 1 and 2 projects and Category 3 outcomes. Each hospital-based Performing Provider shall report on all Category 4 measures, unless the hospital-based performing provider either is exempt from all measures or from certain measures in accordance with *Program Funding and Mechanics Protocol*, Sections 11.e. and 11.f. For Category 4, RHP Plans must include:

- Identifying information: Identification of the DSRIP Category 4 measures and the name and Texas Provider Identifier of the RHP Performing Provider that is reporting the measure.
- Narrative description: A narrative description of the Category 4 measures.
- Table Presentation: In a table format, the RHP Plan will include, starting in DY 3:

- List of Category 4 measures the Performing Provider will report on by domain;
- For each measure, the estimated DSRIP funding must be identified as the maximum amount that can be received for reporting on the measure. For each year, the estimated available non-federal share must be included and the source of non-federal share identified.

IV. Explanation of the Format of this Document

Each RHP will follow the guidelines in this document and provide specificity in its plan. The Categories 1 and 2 projects that follow include the following components, which guide the RHPs in what to include in the plan:

- **Project Area:** The overarching subject matter the project addresses.
- **Project Goal:** This component describes the purpose of performing a project in the project area.
- **Project Option:** This component describes a comprehensive intervention a Performing Provider may undertake to accomplish the project goal.
- **"Other" Project Options:** Each Category 1 and 2 project area includes an "other" project option. Providers that wish to implement an innovative, evidence-based project that is not included on the list of project options for a project area may choose the "other" project option. Providers implementing an innovative, evidence-based project using the "Other" project option may design their project using the process and improvement milestones specified in the project area or may include one or more customizable process milstones P-X and/or improvement milestones I-X, as appropriate for their project. "Other" project options will be subject to additional scrutiny during the plan review and approval process.
- **Project Component:** Activities that may occur in conjunction with one another to carry out a project option. Project components may be required core components or optional components. Required core components are listed with the project options with which they must be completed. Providers either must incorporate all required core components in their plan narrative or they must provide justification for why they are not including a core component (e.g., the provider was at a more advanced stage with the project and had already completed one or more core components).
- **Milestone:** An objective for DSRIP performance comprised of one or more metrics.
    - **Process Milestones:** Objectives for completing a process that is intended to assist in achieving an outcome. These include objectives for continuous quality improvement, rapid-cycle testing, and collaborative learning that are intended to help providers share best practices, spread breakthrough ideas, and test new solutions with the goal of performing at a higher level and achieving outcomes within the 5 years.
    - **Improvement Milestones:** Objectives, such as outputs, to assist in achieving an outcome.
- **Metric:** Quantitative or qualitative indicator of progress toward achieving a milestone from a baseline. There are one or more metrics associated with each milestone. The RHP participants may tailor the targets in the metric, as appropriate.
- **Data Source:** The data source often lists multiple options that could be used for the data being measured by the metric. Please note that these options identify appropriate sources of information, but as allowed, Performing Providers may identify alternative sources that are more appropriate to their individual systems and that provide comparable or better information. The RHP plans will specify the exact data source being used for the metric each year.

- **Rationale:** This component describes why the metric is appropriate, including academic citations, descriptions of how widely used the metric is in the industry, and other reasons why the metric is seen as the appropriate data to meaningfully measure progress toward achieving the milestone.

Additional Process Milestones

In an effort to avoid repetition, it is permissable for each project to include any one of the following as process milestones, in addition to or in lieu of the other process milestones listed. Each is in the spirit of continuous improvement and applying and sharing learning. If a Performing Provider elects to use one or more of these process milestones, the RHP plan would describe the related specifics for the milestone, such as the metric and data source, using customizable process milestone P-X, which is included in each project area:

- Participate in a learning collaborative (e.g., in DY 2, join the Hospital Engagement Network, as documented by the appropriate participation document)Conduct a needs/gap analysis, in order to inform the establishment or expansion of services/programs (e.g., in DY2, conduct a gap analysis of high-impact specialty services to identify those in most demand by the local community in order to expand specialty care capacity targeted to those specialties most needed by patients)
- Pilot a new process and/or program
- Assess efficacy of processes in place and recommend process improvements to implement, if any (e.g., in DY 4, evaluate whether the primary care redesign methodology was as effective as it could be, by: (1) performing at least two team-based Plan-Do-Study-Act workshops in the primary care clinics; (2) documenting whether the anticipated metric improvements were met; (3) identifying opportunities, if any, to improve on the redesign methodology, as documented by the assessment document capturing each of these items)
- Redesign the process in order to be more effective, incorporating learnings (e.g., in DY 4, incorporate at least one new element into the process based on the assessment, using the process modification process to include the specificity needed as new learnings are discovered in DY 3)
- Implement a new, improved practice piloted in one or more Performing Providers within an RHP (e.g., in DY 5, implement improved practices across the Performing Provider's ambulatory care setting)
- Establish a baseline, in order to measure improvement over self
- Complete a planning process/submit a plan, in order to do appropriate planning for the implementation of major infrastructure development or program/process redesign (e.g., in DY 2, complete a planning process for a care navigation program to provide support to patient populations who are most at risk of receiving disconnected and fragmented care)
- Designate/hire personnel or teams to support and/or manage the project/intervention
- Implement, adopt, upgrade, or improve technology to support the project
- Develop a new methodology, or refine an existing one, based on learnings
- Incorporate patient experience surveying

Category 1 Infrastructure Development

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1.1 Expand Primary Care Capacity

Project Goal:
Expand the capacity of primary care to better accommodate the needs of the regional patient population and community, as identified by the RHP needs assessment, so that patients have enhanced access to services, allowing them to receive the right care at the right time in the right setting. Projects plans related to access to primary care services should address current challenges to the primary care system and patients seeking primary care services, including: expanded and/or enhanced system access points, barriers to transportation, and expanded or enhanced primary care services to include urgent care.

Project Options:

1.1.1 Establish more primary care clinics

1.1.2 Expand existing primary care capacity
Required core project components:
- a) Expand primary care clinic space
- b) Expand primary care clinic hours
- c) Expand primary care clinic staffing

1.1.3 Expand mobile clinics

1.1.4 "Other" project option: Implement other evidence-based project to expand primary care capacity in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project. Milestone I-15 includes suggestions for improvement metrics to use with this innovative project option.

Rationale:
In our current system, more often than not, patients receive services in urgent and emergent care settings for conditions that could be managed in a more coordinated manner if provided in the primary care setting. This often results in more costly, less coordinated care and a lack of appropriate follow-up care. Patients may experience barriers in accessing primary care services secondary to transportation, cost, lack of assigned provider, physical disability, inability to receive appointments in a timely manner and a lack of knowledge about what types of services can be provided in the primary care setting. By enhancing access points, available appointment times, patient awareness of available services and overall primary care capacity, patients and their families will align themselves with the primary care system resulting in better health outcomes, patient satisfaction, appropriate utilization and reduced cost of services.

Process Milestones:

P-1. Milestone: Establish additional/expand existing/relocate primary care clinics
- P-1.1. Metric: Number of additional clinics or expanded hours or space

a. Documentation of detailed expansion plans
b. Data Source: New primary care schedule or other Performing Provider document or other plans as designated by Performing Provider.
c. Rationale/Evidence: It is well known the national supply of primary care does not meet the demand for primary care services. Moreover, it is a goal of health care improvement to provide more preventive and primary care in order to keep individuals and families healthy and therefore avoid more costly ER and inpatient care. RHPs are in real need of expanding primary care capacity in order to be able to implement the kind of delivery system reforms needed to provide the right care at the right time in the right setting for all patients.

P-2. Milestone: Implement/expand a community/school-based clinics program
P-2.1. Metric: Number of additional clinics or expanded hours or space
a. Documentation of detailed expansion plan
b. Data Source: New primary care schedule or other document
c. Rationale/Evidence: Providing clinics in the community and/or in schools has been shown to be effective because the health care is located conveniently for patients, and is in a setting that is familiar and may feel 'safe'.

P-3. Milestone: Implement/expand a mobile health clinic program
P-3.1. Metric: Number of additional clinics or expanded hours or space
a. Documentation of detailed expansion plan
b. Data Source: New primary care schedule or other Performing Provider documents
c. Rationale/Evidence: Many RHP plans cover very large counties, including hundreds of miles. In some areas, it may take patients hours to drive to Performing Provider facilities. Therefore, a mobile clinic offers the benefits of taking the services to the patients, which will help keep them healthy proactively.

P-4. Milestone: Expand the hours of a primary care clinic, including evening and/or weekend hours
P-4.1. Metric: Increased number of hours at primary care clinic over baseline
a. Data Source: Clinic documentation
b. Rationale/Evidence: Expanded hours not only allow for more patients to be seen, but also provide more choice for patients.

P-5. Milestone: Train/hire additional primary care providers and staff and/or increase the number of primary care clinics for existing providers
P-5.1. Metric: Documentation of increased number of providers and staff and/or clinic sites.

a. Data Source: Documentation of completion of all items described by the RHP plan for this measure. Hospital or other Performing Provider report, policy, contract or other documentation
b. Rationale: Additional staff members and providers may be necessary to increase capacity to deliver care.

P-6. Milestone: Implement a nurse triage software system to assist nurses in determining the acuity of patients

P-6.1. Metric: Documentation of the availability and utilization of a nurse triage system. The triage system may include many of the following components, which should be detailed in the provided documentation:

- Take messages
- Contain Nurse access protocols, documentation templates, custom orders, integrated scheduling, paging and faxing
- Allow for automated portions of the answering service to decrease the need/cost of live operators
- Enable nurses to track when physicians return pages from nurses or voicemails from other callers
- Let nurses make calls over the internet
- Record and store in the system for easy retrieval and review
- Allow for remote conferencing, training and remote supervision
- Be flexible enough to be configured for pandemic and other emergency situations

a. Data Source: Documentation of vendor agreement, staff training in use of system. Vendor agreement, staff training documentation
b. Rationale: In order to determine the appropriate setting for some urgent conditions, an automated nurse triage system is an excellent aide for clinical decision making and communication amongst providers, further facilitating follow-up care.

P-6.2. Metric: Document monitoring parameters of the nurse triage system, like availability of appointments throughout the day, percentage of triaged patients handled by the nurse and percentage handled by the physician, percentage of prebooked appointments, availability of preventive services appointments, average waiting time, patient and staff satisfaction and consultation time.

a. Data Source: Documentation of vendor agreement, staff training in use of system. Vendor agreement, staff training documentation
b. Rationale: In order to determine the appropriate setting for some urgent conditions, an automated nurse triage system is an excellent aide for clinical decision making and communication amongst providers, further facilitating follow-up care.

P-7. Milestone: Establish a nurse advice line and/or primary care patient appointment unit.

P-7.1. Metric: Documentation of nurse advice line and/or primary care patient appointment unit.

a. Data Source: Documentation of advice line and appointment unit implementation, operating hours and triage policies. Advise line system logs, triage algorithms and appointment unit operations/ policies.

b. Rationale: In many cases patients are unaware of the appropriate location and timing to seek care for urgent and chronic conditions. Implementation of a nurse advice line allows for primary care to be the first point of contact and offer clinical guidance around how to mitigate symptoms, enhance patient knowledge about certain conditions and seek timely care services.

P-8. Milestone: Develop an automated tracking system for measuring time to next available offered appointment.

P-8.1. Metric: Documentation that providers and staff are aware of next available appointment time using real time scheduling data, to ensure that patients can receive primary care services according to acuity and need.

a. Data Source: Documentation of Performing Provider policies for assessing and communicating time to next available appointment and response to patient care needs reporting and communication tool. Performing Provider administrative records from patient scheduling system

b. Rationale: Regular tracking and assessment of time to next available appointment by staff and providers allows for enhanced ability to identify scheduling gaps, patient needs and appropriately triage patients to receive necessary care.

P-9. Milestone: Develop and implement/expand a plan for proactive management of adult medicine patient panels through a new Office of Panel Management, such that clinic and provider panel capacity is increased and optimized going forward. (must include at least one metric):

P-9.1. Metric: Documentation of implementation/expansion of Office of Panel Management. Demonstrate improvement over prior reporting period (baseline for DY2).

a. Data Source: Documentation of Office of Panel Management plan, staff assignments, policies and procedures. Documentation of the panel status (open/closed) and panel capacity at points in time. Performing Provider administrative records

b. Rationale: This intervention will optimize the use of available adult medicine panel capacity, ensuring equality and appropriateness of panel size by provider, to best meet patient requests for providers and care needs.

P-9.2. Metric: Documentation of increased and optimized clinic and provider panel capacity. Demonstrate improvement over prior reporting period.

a. Data Source: Documentation of panel management dynamics (counts of additions, deletions, and total paneled patients) and results of initial panel "cleaning". Performing provider administrative records.
b. Rationale: To ensure accuracy of Provider panels, regular maintenance should be conducted on the Panel Management system. This should include and will allow for enhanced tracking of patient requests for providers, variations in service utilization and outcomes.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]
P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]
a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
b. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones:

I-10. Milestone: Enhance patient access to primary care services by reducing days to third next-available appointment. Demonstrate improvement over prior reporting period.

I-10.1. Metric: Third Next-Available Appointment: The length of time in calendar days between the days a patient makes a request for an appointment with a provider/care team, and the third available appointment with that provider/care team. Typically, the rate is an average, measured periodically (weekly or monthly) as an average of the providers in a given clinic. It will be reported for the most recent month. The ultimate improvement target over time would be seven calendar days (lower is better), but depending on the Performing Provider's starting point, that may not be possible within four years.

a. Average number of days to third next available appointment for an office visit for each clinic and/or department1

b. Data Source: Practice management or scheduling systems

c. Rationale/Evidence: This measure is an industry standard of patients' access to care. For example, the IHI definition white paper on whole system measures cites this metric.2

I-11. Milestone: Patient satisfaction with primary care services.

I-11.1. Metric: Patient satisfaction scores: Average reported patient satisfaction scores, specific ranges and items to be determined by assessment tool scores. Demonstrate improvement over prior reporting period.

a. Numerator: Sum of all survey scores,

b. Denominator: Number of surveys completed.

c. Data Source: CG-CAHPS[3] or other developed evidence based satisfaction assessment tool, available in formats and language to meet patient population.

d. Rationale: Patient satisfaction with primary care services is largely related to utilization of primary care services. Understanding strengths, needs and receiving patient feedback allows for providers and staff to better understand how to tailor care delivery to meet their patients' needs.

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1 http://www.qualitymeasures.ahrq.gov/popups/printView.aspx?id=23918

2 Martin LA, Nelson EC, Lloyd RC, Nolan TW. Whole System Measures. IHI Innovation Series white paper. Cambridge, Massachusetts: Institute for Healthcare Improvement; 2007. (Available on www.IHI.org).

3 http://www.ahrq.gov/cahps/clinician_group/

I-11.2. Metric: Percentage of patients receiving survey. Specifically, the percentage of patients that are provided the opportunity to respond to the survey. Demonstrate improvement over prior reporting period.

a. Numerator: number of surveys distributed during the reporting period
b. Denominator: total number of primary care visits during the reporting period
c. Data Source: Performing provider documentation of survey distribution, EHR
d. Rationale: Patient satisfaction with primary care services is largely related to utilization of primary care services. Understanding strengths, needs and receiving patient feedback allows for providers and staff to better understand how to tailor care delivery to meet their patients' needs.

I-11.3. Metric: Survey response rate. Demonstrate improvement over prior reporting period .

a. Numerator: number of survey responses
b. Denominator: total number of surveys distributed.
c. Data Source: CAHPS or other developed evidence based satisfaction assessment tool; Performing provider documentation of survey distribution, EHR
d. Rationale: Patient satisfaction with primary care services is largely related to utilization of primary care services. Understanding strengths, needs and receiving patient feedback allows for providers and staff to better understand how to tailor care delivery to meet their patients' needs.

I-12. Milestone: Increase primary care clinic volume of visits and evidence of improved access for patients seeking services.

I-12.1. Metric: Documentation of increased number of visits. Demonstrate improvement over prior reporting period.

a. Total number of visits for reporting period
b. Data Source: Registry, EHR, claims or other Performing Provider source
c. Rationale/Evidence: This measures the increased volume of visits and is a method to assess the ability for the Performing Provider to increase capacity to provide care.

I-12.2. Metric: Documentation of increased number of unique patients, or size of patient panels. Demonstrate improvement over prior reporting period.

a. Total number of unique patients encountered in the clinic for reporting period.
b. Data Source: Registry, EHR, claims or other Performing Provider source
c. Rationale/Evidence: This measures the increased volume of visits and is a method to assess the ability for the Performing Provider to increase capacity to provide care.

I-13. Milestone: Enhanced capacity to provide urgent care services in the primary care setting.

I-13.1. Metric: Percent patients receiving urgent care appointment in the primary care clinic (instead of having to go to the ED or an urgent care clinic) within 2 calendar days of request. Demonstrate improvement over baseline rates

a. Numerator: number of patients receiving urgent care appointment within 2 days of request

b. Denominator: number of patients requesting urgent care appointment.

c. Data source: Registry, EHR, claims or other Performing Provider scheduling source

d. Rationale: Identifying patient flow as it relates to urgent care needs allow Performing Providers to tailor staffing, triage protocols and service hours to best address patient needs and increase capacity to accommodate both urgent and non-urgent appointments.

I-14. Milestone: Increase the number of patients served and questions addressed on the nurse advice line and patient scheduling unit. Demonstrate improvement over prior reporting period.

I-14.1. Metric: Number of patients served by the nurse advice line. Demonstrate improvement over baseline rates.

a. Numerator: number of unique records created from calls received to the nurse advice line.

b. Denominator: total number of calls placed to the nurse advice line (distinct from number of calls answered).

c. Data Source: Automated data from call center

d. Rationale/Evidence: This measure will indicate how many calls are addressed successfully as well as an overall call abandonment rate. Abandonment rate is the percentage of calls coming into a telephone system that are terminated by the person originating the call before being answered by a staff person. It is related to the management of emergency calls. This metric speaks to the capacity of the nurse advice line.

I-14.2. Metric: Nurse advice line/patient scheduling line service indicator: Average speed of answer

a. Numerator: Average delay, in seconds, for all calls to be answered by an agent during the reporting period. [4]

b. Data Source: Call center reports

c. Rationale/Evidence: Another very frequently used key performance indicator in a call center is the speed of service at which calls are answered.

[4] http://c.ymcdn.com/sites/www.naquitline.org/resource/resmgr/issue_papers/callcentermetricspaperbestpr.pdf

I-14.3. Metric: Nurse advice line/patient scheduling line service indicator: Longest delay in queue (LDQ)

a. Numerator: The longest delay, in minutes, for all calls received during the reporting period.

b. Data Source: Call center reports

c. Rationale/Evidence: The age of the call that has been in queue the longest, or the longest delay in queue (LDQ), is a real-time measure of performance that is used by many call centers to indicate when immediate staffing changes are required. LDQ is also a historical gauge of performance that indicates the "worst-case" experience of a customer over a period of time, such as a day.

I-14.4. Metric: Nurse advice line/patient scheduling line quality indicator: Knowledge and competency

a. Numerator: Average score provided by callers on agent knowledge and competency.

b. Data Source: Call center reports

c. Rationale/Evidence: One component that leads callers to remark that a call was handled with quality is the ability of the agent or counselor to provide correct and thorough product and service information, and to be competent at handling caller questions and problems.

I-14.5. Metric: Nurse advice line/patient scheduling line quality indicator: First call resolution rate

a. Numerator: The percentage of calls completed within a single contact during the reporting period

b. Data Source: Call center reports

c. Rationale/Evidence: The percentage of calls completed within a single contact, often called the "one and done," or resolution rate, gauges the ability of the center as well as of an individual agent to accomplish the call in a single contact without requiring a transfer to another person or area, or without needing an additional call to assist the caller. The satisfactory resolution of a call is tracked by type of call and, perhaps, by time of day or by group. The one-call resolution rate is also an individual gauge of performance that measures an individual's capability to handle the call to completion without requiring assistance via a transferred call or a subsequent call, meaning higher efficiency and better service.

I-14.6. Metric: Nurse advice line/patient scheduling line quality indicator: Adherence to protocol

a. Numerator: Number of calls in which the protocol(s) was/were followed during the reporting period.
b. Denominator: Total number of calls for the reporting period.
c. Data Source: Call center reports
d. Rationale/Evidence: Adherence to protocols, such as workflow processes or call scripts, is another essential element of quality in the call center. Ensuring callers receive a consistent call-handling experience regardless of the contact channel or the individual agent involved in the contact is particularly important to the perceived quality of the contact. Adherence to protocols and procedures is a crucial element of individual agent performance in the call center. Adherence to telephone procedures and call scripts is typically monitored through both general observation and a more formal quality-monitoring process.

I-14.7. Metric: Nurse advice line/patient scheduling line efficiency indicator: Average handle time

a. Numerator: Average time, in minutes from the initiation of a call until resolution for the call, for all calls during the reporting period. Essentially, talk time plus after-call work.
b. Data Source: Call center reports
c. Rationale/Evidence: The most common measure of contact handling is the average handle time (AHT). AHT is used when determining overall workload and staffing requirements. AHT reports are available from the ACD. To accommodate differences in calling patterns, AHT should be measured and identified by time of day as well as by day of week. It measures overall call center performance and team and individual agent performance. Although handle times will vary based on call content, an agent should typically deliver a consistent handle time within an acceptable range. However, overemphasizing short AHT can reduce the quality of the interaction and decrease the conversion rate. There is no industry standard or recommendation for AHT. AHT numbers should be gathered and analyzed primarily to determine if agents are in an acceptable range of performance and whether differences among agents are associated with different conversion rates.

I-14.8. Metric: Nurse advice line/patient scheduling line efficiency indicator: After-call work time

a. Numerator: Time, in minutes, after the conversation, that the agent spends filling out associated paperwork, updating files, and doing similar work related to the call before the agent is ready to handle the next contact.

b. Data Source: Call center reports

c. Rationale/Evidence: One of the components of AHT that is considered to be the most variable and the most controllable is the after-call work (ACW) portion of the contact. ACW should be measured and evaluated over time to determine the appropriate amount of time needed to accomplish the necessary tasks. This overall call center ACW number will then typically serve as the benchmark against which to measure an individual agent's ACW time. Comparisons between agents should be made with similar types of calls because the requirements of different call-handling situations can vary significantly. ACW should be measured by type of call as well as by individual. Measuring ACW by time of day is also useful. When understaffing results in high occupancy for staff and very little idle time between calls, ACW time is typically higher because agents stay in the non-call state to catch their breath between calls. Observing this type of metric will indicate those agents in need of coaching to prevent their unavailability during already understaffed times.

I-14.9. Metric: Nurse advice line/patient scheduling line efficiency indicator: Average on-hold time

a. Numerator: Sum of amount of time a caller spends on hold during the course of the conversation for all calls during the reporting period.

b. Denominator: Number of calls during the reporting period.

c. Data Source: Call center reports

d. Rationale/Evidence: On-hold time is the amount of time a caller spends on hold during the course of the conversation. Obviously, the goal is to minimize the number of times a caller is placed on hold, as well as to minimize the length of the on-hold time. Most call centers measure on-hold time, but it is not necessarily one of the top performance indicators. An overall high percentage of on-hold time may indicate that system performance is slow or that access to multiple systems is delaying the agents in processing callers' requests. On-hold time is more typically used as a gauge for individual agents and can indicate insufficient knowledge or other performance gaps. Call centers will want to review the percentage of calls an agent has to put on hold as well as the length of the hold time. There is no industry standard for on-hold time. The goal is to minimize the number for increased call efficiency and service to the caller.

I-14.10. Metric: Nurse advice line/patient scheduling line efficiency indicator: Average cost of call

a. Numerator: TBD by provider
b. Data Source: Call center reports
c. Rationale/Evidence: Cost per call is a key performance indicator for most call center operations. Regardless of whether it is tracked as only a labor cost or as a fully loaded cost, the cost-per-call figure is used to evaluate how efficiently the company's financial resources are being used and what its return on investment is. The cost-per-call rate can track just labor costs per call or it can include all the telecommunications, facilities, and other service costs in addition to labor costs. When determining the cost per call, the components being used must be defined and used consistently in evaluating how the call center is using financial resources over time. Although cost per-call rates are commonly used to compare one company or site with another, this practice is not recommended because the components included and the types of contacts may vary.

I-14.11. Metric: Number of patients served by the patient scheduling line. Demonstrate improvement over baseline rates.

a. Numerator: total number of appointments made as a result of calls received to the patient scheduling line.
b. Denominator: total number of calls placed to the patient scheduling line (distinct from number of calls answered).
c. Data Source: Automated data from call center
d. Rationale/Evidence: This measure will indicate how many calls are addressed as well as a call abandonment rate. Abandonment rate is the percentage of calls coming into a telephone system that are terminated by the person originating the call before being answered by a staff person. This metric speaks to the capacity of the patient scheduling line as well as a proxy for patient access using the patient scheduling line.

I-15. Milestone: Increase access to primary care capacity. The following metrics are suggested for use with an innovative project option to increase access to primary care capacity but are not required.

I-15.1. Metric: Increase percentage of target population reached.

a. Numerator: Number of individuals of target population reached by the innovative project.
b. Denominator: Number of individuals in the target population.
c. Data Source: Documentation of target population reached, as designated in the project plan.
d. Rationale/Evidence: This metric speaks to the efficacy of the innovative project in reaching it targeted population.

I-15.2. Metric: Increased number of primary care visits.
- a. Total number of visits for reporting period
- b. Data Source: Registry, EHR, claims or other Performing Provider source
- c. Rationale/Evidence: This measures the increased volume of visits and is a method to assess the ability for the Performing Provider to increase capacity to provide care.

I-15.3. Metric: Documentation of increased number of unique patients, or size of patient panels. Demonstrate improvement over prior reporting period (baseline for DY2).
- a. Total number of unique patients encountered in the clinic for reporting period.
- b. Data Source: Registry, EHR, claims or other Performing Provider source
- c. Rationale/Evidence: This measures the increased volume of visits and is a method to assess the ability for the Performing Provider to increase capacity to provide care.

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]
- a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]
- b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

1.2 Increase Training of Primary Care Workforce

Project Goal:
Texas has a growing shortage of primary care doctors and nurses due to the needs of an aging population, a decline in the number of medical students choosing primary care, and thousands of aging baby boomers who are doctors and nurses looking towards retirement. The shortage of primary care workforce personnel in Texas is a critical problem that we have the opportunity to begin addressing under this waiver. It is difficult to recruit and hire primary care physicians. The shortage of primary care providers has contributed to increased wait times in hospitals, community clinics, and other care settings. Expanding the primary care workforce will increase access and capacity and help create an organized structure of primary care providers, clinicians, and staff. Moreover, this expansion will strengthen an integrated health care system and play a key role in implementing disease management programs. The extended primary care workforce will also be trained to operate in patient-centered medical homes. A greater focus on primary care will be crucial to the success of an integrated health care system. Furthermore, in order to effectively operate in a medical home model, there is a need for residency and training programs to expand the capabilities of primary care providers and other staff to effectively provide team-based care and manage population health. Therefore, the need to expand the responsibilities of primary care workforce members will be even more important. In summary, the goal for this project is to train more workforce members to serve as primary care providers, clinicians, and staff to help address the substantial primary care workforce shortage and to update training programs to include more organized care delivery models. This project may apply to primary care physicians (including residents in training), nurse practitioners, physician assistants, and other clinicians/staff (e.g., health coaches, community health workers/promotoras) in the following service areas: family medicine, internal medicine, obstetrics and gynecology, geriatrics, and pediatrics.

In 2010, Texas had 176 patient care physicians per 100,000 population and 70 primary care physicians per 100,000 population with a state ranking of 46 and 47, respectively. (Comparable ratios for US Total are 219.5 and 90.5, respectively.) From 2001 to 2011, the Texas physician workforce grew 32.3%, exceeding the population growth of 25.1%. Primary care physician workforce grew only 25% in the same period. From 2002 to 2011, Texas increased medical school enrollment 31% from 1,342 to 1,762 in line with the national call by the Association of American Medical Colleges to increase medical school enrollments by 30%. In 2011, there were 1,445 medical school graduates. Coincidentally, there were 1,445 allopathic entry-level GME positions offered in the annual National Resident Matching program. (There were 31 osteopathic slots.) The Texas Higher Education Coordinating Board recommends a ratio of 1.1 entry-level GME positions for each Texas medical school graduate. The number of Texas medical school graduates is expected to peak at over 1,700 in 2015. This implies a need for 400 additional GME positions by 2015. The shortage of GME positions or residency slots may be the single most problematic bottleneck in Texas' efforts to alleviate the state's physician shortage.[5]

The rate of Primary Care Physicians per 100,000 Population varies by region from 43 (South Texas) to 78 (Central Texas). Resident physicians provide low-cost care to needy populations and tend to remain in the state in which they complete their residency training.

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[5] 2010 physician supply extracted from "Physician Characteristics and Distribution in the U.S., " 20122012 Edition, published by American Medical Association. U.S. and Texas population estimates, 2010, extracted from U.S. Census Bureau American Fact Finder Website. Prepared by: Medical Education Dept., Texas Medical Association, 2/2012.

Project Options:

1.2.1 Update primary care training programs to include training on the medical home and chronic care models, disease registry use for population health management, patient panel management, oral health, and other identified training needs and/or quality/performance improvement

1.2.2 Increase the number of primary care providers (i.e., physicians, residents, nurse practitioners, physician assistants) and other clinicians/staff (such as health coaches and community health workers/promotoras).

1.2.3 Increase the number of residency/training program for faculty/staff to support an expanded, more updated program

1.2.4 Establish/expand primary care training programs, with emphasis in communities designated as health care provider shortage areas (HPSAs)

1.2.5 "Other" project option: Implement other evidence-based project to increase training of the primary care workforce in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project.

Process Milestones:

P-1. Milestone: Conduct a primary care gap analysis to determine workforce needs.

P-1.1. Metric: Gap assessment of workforce shortages

a. Submission of completed assessment

b. Data Source: Assessment results

c. Rationale/Evidence: In order to identify gaps in primary care, specific to gaps in provider types, to best build up supply of primary care practitioners to meet the demand for services and improve primary care access.

P-2. Milestone: Expand primary care training for primary care providers, including physicians, physician assistants, nurse practitioners, registered nurses, certified midwives, case managers, pharmacists, dentists (must include at least one of the following metrics):

P-2.1. Metric: Expand the primary care residency, mid-level provider (physician assistants and nurse practitioners), and/or other clinician/staff (e.g., health coaches, community health workers/promotoras) training programs and/or rotations

a. Documentation of applications and agreements to expand training programs

b. Data Source: Training program documentation

c. Rationale/Evidence: Increasing primary care training may help address the primary care workforce shortage.

P-2.2. Metric: Hire additional precepting primary care faculty members. Demonstrate improvement over prior reporting period (baseline for DY2).

a. Documentation: Increased number of additional training faculty/staff members
b. Data Source: HR documents, faculty lists, or other documentation
c. Rationale/Evidence: More faculty is needed to expand training programs. Increasing primary care training offering alternative training programs may offer additional flexibility for trainees in efforts to address the primary care workforce shortage.

P-2.3. Metric: Develop alternative primary care training modalities, including but not limited to distance/online training, alternative scheduling and education in non-traditional training settings.
a. Documentation of applications and agreements to expand alternative training programs.
b. Data Source: Training program documentation
c. Rationale/Evidence: Non-traditional training and education methods, especially distance learning, offer not only access to learning in the most remote areas but also offers interactive modalities of training which are the quintessential education methodology in the modern world.

P-3. Milestone: Expand positive primary care exposure for residents/trainees (must include at least one of the following metrics):

P-3.1. Metric: Develop mentoring program with primary care faculty and new trainees
a. Documentation of program
b. Data Source: Mentoring program curriculum and/or program participant list
c. Rationale/Evidence: Mentoring programs have been found to foster primary care trainees' interest in pursuing primary care careers.

P-3.2. Metric: Train trainees in the medical home model, chronic Care Model and/or disease registry use; have primary care trainees participate in medical homes by managing panels
a. Documentation of program
b. Data Source: Curriculum, rotation hours, and/or patient panels assigned to resident/trainee
c. Rationale/Evidence: Training programs in primary care should reflect the evolving primary care delivery models.

P-3.3. Metric: Include trainees/rotations in quality improvement projects
a. Documentation of program
b. Data Source: Curriculum and/or quality improvement project documentation/data
c. Rationale/Evidence: Including primary care trainees in quality improvement has been linked to trainee satisfaction with primary care.

P-4. Milestone: Develop and implement a curriculum for residents to use their practice data to demonstrate skills in quality assessment and improvement

P-4.1. Metric: Quality assessment and improvement practicum for residents

a. Documentation of program
b. Data Source: Curriculum description and registration documentation
c. Rationale/Evidence: Including primary care trainees in quality improvement has been linked to trainee satisfaction with primary care. Providing practicum opportunities for residents will allow for greater mastery of quality improvement methodology.

P-5. Milestone: Implement loan repayment program for primary care providers

P-5.1. Metric:

a. Documentation of program
b. Data Source: Program materials
c. Rationale/Evidence: Loan repayment programs can help to make primary care more attractive.

P-6. Milestone: Develop/Expand enrollment in programs that provide primary care training that lead to retain the graduates and commit to serve in specific communities e.g. HRSA designated Health Care Provider Shortage Areas (HPSAs)[6] or HRSA FQHCs.

P-6.1. Metric: Provide training for commitment to serve in specific communities.

a. Documentation of developed program(s) and enrollment in program(s)
b. Data Source: Program materials
c. Rationale/Evidence: Training assistance programs that require commitment to serve in specific and/or underserved communities may address primary care workforce shortage areas.

P-7. Milestone: Create a primary care career pipeline program for secondary school students (specifications to be provided in the RHP plan).

P-7.1. Metric: Primary care career pipeline program

a. Documentation of program development and implementation.
b. Data Source: Program materials
c. Rationale/Evidence: Funnel high school students into primary healthcare careers like primary care medicine, nursing, dentistry, professional counseling, dietitian, public health.

P-8. Milestone: Establish/expand a faculty development program

P-8.1. Metric: Enrollment of faculty staff into primary care education and training program

a. Documentation of program and enrollment
b. Data Source: Program documents
c. Rationale/Evidence: More primary care faculty is needed to support training programs.

P-9. Milestone: Develop/disseminate clinical teaching tools for primary care or interdisciplinary clinics/sites

P-9.1. Metric: Clinical teaching tools

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6 hpsafind.hrsa.gov

a. Submission of teaching tools
b. Data Source: Enlist institutions that provide clinical teaching as consultants.
c. Rationale/Evidence: Utilize faculty from the educational institution (hospital) who are not employed or fiscally aligned to the practice site, and who do not provide direct clinical services for the clinical agency in a consulting capacity.

P-10. Milestone: Obtain approval from the Accreditation Council for Graduate Medical Education (ACGME) to increase the number of primary care residents

P-10.1. Metric: Documentation of ACGME approval for residency position expansion

a. Submit application
b. Data source: justify the number of residents needed
c. Rationale: increase in number of primary care residents will increase the access the access to care for population including Medicaid.

<u>Customizable Process Milestone P-X:</u> This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]

P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
b. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones:

I-11. Milestone: Increase primary care training and/or rotations

I-11.1. Metric: Increase the number of primary care residents and/or trainees, as measured by percent change of class size over baseline. Trainees may include physicians, mid-level providers (physician assistants and nurse practitioners), and/or other clinicians/staff (e.g., health coaches, community health workers/promotoras). Demonstrate improvement over prior reporting period.

a. Number trainees enrolled primary care training program(s)

b. Data Source: Documented enrollment by class by year by primary care training program

c. Rationale/Evidence: As the goal is to increase the primary care workforce to better meet the need for primary care in the health care system by increasing training of the primary care workforce in Texas, the metric is a straightforward measurement of increased training.

I-11.2. Metric: Increase the number or primary care trainees rotating at the Performing Provider's facilities

a. Number of primary care trainees in rotation at Performing Provider's facilities

b. Data Source: Student/trainee rotation schedule
Rationale/Evidence: This metric addresses the capacity of the Performing Provider to directly engage in providing primary care trainees opportunities to build experience and enhance skills.

I-11.3. Metric: Increase the number or percent of culturally-competent trainees eligible for existing Texas residency programs

a. Number or percent of residency eligible graduates of cultural competency training programs.

b. Data Source: Cultural Competency training program matriculation records.

c. Rationale/Evidence: This metric aims to address the need for cultural competency training available to Texas primary care residents.

I-11.4. Metric: Increase the number of primary care residents and/or trainees, as measured by percent change of class size over baseline or by absolute number.

a. Number of primary care residents and/or trainees enrolled

b. Data Source: Program enrollment records

c. Rationale/Evidence: This metric addresses the need for additional primary care residency and/or trainee slots.

I-11.5. Metric: Improvement in trainee satisfaction with specific elements of the training program
- a. Numerator: Sum of trainee satisfaction scores
- b. Denominator: total number of trainees
- c. Data Source: Trainee satisfaction assessment tool
- d. Rationale/Evidence: Regular assessment of trainee satisfaction is critical to adapting programs to address needs and further foster a commitment to serve in primary care. Increased satisfaction helps with the sustainability of the project.

I-11.6. Metric: Improvement in trainee knowledge assessment scores
- a. Numerator: Sum of differences in pre and post training assessment scores.
- b. Denominator: Number of graduates from training program.
- c. Data Source: Knowledge assessment tool
- d. Rationale/Evidence: Regular assessment of trainee knowledge is critical to adapting programs to address needs and capacity to serve in primary care settings. Improvement of knowledge reflects effectiveness of the training program vs. just the increase in the number of enrollments.

I-11.7. Metric: Improvement in number of primary care practitioners that went on to practice primary care after graduating from primary care training/residency.
- a. Number of training program graduates currently working as primary care practitioners.
- b. Data Source: Exit survey or other follow-up survey.
- c. Rationale/Evidence: This metric addresses the efficacy of the training program to produce a measureable difference in the number of primary care practitioners.

I-12. Milestone: Recruit/hire more trainees/graduates to primary care positions in Performing Provider facilities

I-12.1. Metric: Percent change in number of graduates/trainees accepting positions in the Performing Provider's facilities over baseline
- a. Numerator: number of graduates/trainees accepting positions in facility
- b. Denominator: total number of graduates/trainees that received training in Performing Provider's facilities.
- c. Data Source: Documentation, such as HR documents compared to class lists
- d. Rationale/Evidence: A measure of the success of the training program is how many graduates are choosing to practice primary care at the Performing Provider's facilities.

I-13. Milestone: Increase the number/proportion of primary care residency/trainee graduates choosing primary care as a career

I-13.1. Metric: Number of primary care residency/trainee graduates working in primary care settings.

a. Numerator: Number of class year residency/trainee graduates working in primary care.

b. Denominator: Number of class year residency/trainee graduates

c. Data Source: Program and follow survey documentation.

d. Rationale/Evidence: Measures success of process measures.

I-14. Milestone: Increase the number of faculty staff completing educational courses

I-14.1. Metric: Number of staff completing courses

a. Number of faculty staff completing educational courses.

b. Data Source: Certificates of completion or course graduate records.

c. Rationale/Evidence: Measures success of related process measure.

I-15. Milestone: Increase primary care training in Continuity Clinics,[7] which may be in diverse, low-income, community-based settings, (must include at least one of the following metrics):

I-15.1. Metric: Increase number of Continuity Clinic sessions available for primary care trainees.

a. Numerator: Number of Continuity Clinic Sessions utilizing primary care trainees.

b. Denominator: Total number of Continuity Clinic Sessions.

c. Data Source: Number of trainee office visits, such as from disease registry, EHR, claims data or other reports

d. Rationale/Evidence: Residents/trainees have the opportunity to treat patients in the clinic setting, offering the trainee an option to provide continuing care to his/her patients in order to build continuity with his/her patients.

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7 Per the Accreditation Council for Graduate Medical Education (ACGME), "Setting for a longitudinal experience in which residents develop a continuous, long-term therapeutic relationship with a panel of patients." For more information, please see http://www.acgme.org/acWebsite/about/ab_ACGMEglossary.pdf.

I-15.2. Metric: Increase number of Continuity Clinic patients in primary care residents' panels.

a. Numerator: Number of patients assigned to primary care resident panels.
b. Denominator: Total number of patients seen in the Continuity Clinic during the reporting period.
c. Data Source: Patient panel, registry or EHR
d. Rationale/Evidence: Residents/trainees have the opportunity to treat patients in the clinic setting, offering the trainee an option to provide continuing care to his/her patients in order to build continuity with his/her patients.

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]
b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

1.3 Implement a Chronic Disease Management Registry

Project Goal:
Implement a disease management registry for one or more patient populations diagnosed with a selected chronic disease(s) or with Multiple Chronic Conditions (MCCs). By tracking key patient information, a disease registry can help physicians and other members of a patient's care team identify and reach out to patients who may have gaps in their care in order to prevent complications, which often lead to more costly care interventions. A disease registry can assist physicians in one or more key processes for managing patients with a chronic disease, including:

- Prompt physicians and their teams to conduct appropriate assessments and deliver condition-specific recommended care;
- Identify patients who have missed appointments, are overdue for care, or are not meeting care management goals;
- Provide reports about how well individual care teams and overall provider organizations are doing in delivering recommended care to specific patient populations;
- Stratify patients into risk categories in order to target interventions toward patients with highest needs.

Project Options:

1.3.1 Implement/enhance and use chronic disease management registry functionalities
Required core project components:

a) Enter patient data into unique chronic disease registry
b) Use registry data to proactively contact, educate, and track patients by disease status, risk status, self-management status, community and family need.
c) Use registry reports to develop and implement targeted QI plan
d) Conduct quality improvement for project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, identifying "lessons learned," opportunities to scale all or part of the project to a broader patient population, and identifying key challenges associated with expansion of the project, including special considerations for safety-net populations.

1.3.2 "Other" project option: Implement other evidence-based project to implement a chronic disease management registry in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project. Milestone I-23 includes suggestions for improvement metrics to use with this innovative project option.

Note: All of the project options in project area 1.3 should include a component to conduct quality improvement for the project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, "lessons learned," opportunities to scale all or part of the project to a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations.

Rationale:
Utilization of registry functionalities helps care teams to actively manage patients with targeted chronic conditions because the disease management registry will include clinician prompts and reminders, which should improve rates of preventive care.

Process Milestones:

P-1. Milestone: Identify one or more target patient populations diagnosed with selected chronic disease(s) (e.g. diabetes, CHF, COBP, etc) or with Multiple Chronic Conditions (MCCs).

P-1.1. Metric: Documentation of patients to be entered into the registry

a. Numerator: Number of patients entered into the registry with target condition;
b. Denominator: Total number of patients with the target condition;
c. Data source: performing providers records/documentation;
d. Rationale/Evidence: Condition specific registries allow providers to focus on quality improvements around clinical outcomes and processes for targeted patients.

P-2. Milestone: Review current registry capability and assess future needs.

P-2.1. Metric: Documentation of review of current registry capability and assessment of future registry needs.

a. Numerator: number entered into the registry;0 if documentation is not provided, 1 if it is provided;
b. Denominator: total patients with the target condition;
c. Data source: EHR systems and/or other performing provider documentation.
d. Rationale/Evidence: Used to determine if the necessary elements for a chronic disease registry are in place for optimal care management. Necessary elements may include inpatient admissions, emergency department visits, test results, medications, weight, activity level changes and/or diet changes.

P-3. Milestone: Develop cross-functional team to evaluate registry program.

P-3.1. Metric: Documentation of personnel (clinical, IT, administrative) assigned to evaluate registry program

a. Numerator: number of personnel assigned to enter the registry
b. Denominator: total number of personnel
c. Data source: Team roster and minutes from team meetings
d. Rationale/Evidence: Evaluation of current registry functionality and anticipated registry needs should be completed by a variety of team members to ensure compatibility across departments.

P-4. Milestone: Implement/expand a functional disease management registry.

P-4.1. Metric: Registry functionality is available in X% of the Performing Provider's sites and includes an expanded number of targeted diseases or clinical conditions.

a. Numerator: Number of sites with registry functionality
b. Denominator: Total number of sites
c. Data Source: Documentation of adoption, installation, upgrade, interface or similar documentation
d. Rationale/Evidence: Utilization of registry functionalities helps care teams to actively manage patients with targeted chronic conditions because the disease management registry will include clinician prompts and reminders, which should improve rates of preventive care. Having the functionality in as many sites as possible will enable care coordination for patients as they access various services throughout a Performing Provider's facilities. Registry use can be targeted to clinical conditions/diseases most pertinent to the patient population (e.g., diabetes, hypertension, chronic heart failure).

P-5. Milestone: Demonstrate registry automated reporting ability to track and report on patient demographics, diagnoses, patients in need of services or not at goal, and preventive care status

P-5.1. Metric: Documentation of registry automated report
a. Numerator: number of patients with required information entered in the registry
b. Denominator: total number of patients with target condition
c. Data Source: Registry
d. Rationale/Evidence: To be meaningful for panel management and potentially for population health purposes, registry functionality should be able to produce reports for groups or populations of patients that identify clinical indicators.

P-5.2. Metric: Expand/enhance registry report services to provide on-demand, operational, and historical capabilities, inclusive of reports to care providers, managers, and executives
a. Data Source: Sample report demonstrating registry capacity
b. Rationale/Evidence: Both providers and management will benefit from reports produced using the registry. This will allow transparency around service utilization and clinical outcomes striated by provider, condition status, pay source or other patient characteristic.

P-5.3. Metric: Expand registry functionality to include electronic structured documentation and clinical decision support at the point of care
a. Data Source: Documentation of registry capacity
b. Rationale/Evidence: Integrating structured documentation and clinical decision support into registry functionality allows for a more seamless and coordinated use of health information technology.

P-6. Milestone: Conduct staff training on populating and using registry functions.

P-6.1. Metric: Documentation of training programs and list of staff members trained, or other similar documentation
a. Data Source: HR or training program materials
b. Rationale/Evidence: Staff needs to be trained on appropriate use of the registry functions in order to optimize its use and efficacy.

P-7. Milestone: Develop and implement testing to evaluate the accuracy of the registry and effectiveness in addressing treatment gaps and reducing preventable acute care

P-7.1. Metric: Implement and document results of test plan.

a. Data Source: Test plan

b. Rationale/Evidence: Develop and implement test plan to determine accuracy of information populated into the registry

P-8. Milestone: Create/disseminate protocols for registry-driven reminders and reports for clinicians and providers regarding key health indicator monitoring and management in patients with targeted diseases

P-8.1. Metric: Submitted protocols for the specified conditions and health indicators

a. Number of protocols for specified conditions and health indicators submitted

b. Data Source: Protocols

c. Rationale/Evidence: Health indicator (outcome) monitoring and management of patients is a key component of registry utilization. Protocols should be developed so that staff and providers are aware of what services and outcomes are captured for which patients and how/when those patients are notified of recommended services.

P-9. Milestone: Implement an electronic process to correctly identify number or percent of screening tests that require additional follow-up

P-9.1. Metric: Documentation of an electronic process to correctly identify number or percent of screening tests that require additional follow-up

a. Data Source: Process or other reporting documentation

b. Rationale/Evidence: To ensure that all patients receive the opportunity for follow-up treatment, these reports should be run regularly and those patients identified should be offered appointments accordingly.

P-10. Milestone: Implement cross-functional team to staff registry program.

P-10.1. Metric: Documentation of personnel (clinical, IT, administrative) assigned to staff registry program

a. Data source: HR records

b. Rationale/Evidence: A cross functional team can ensure that the registry capacity is optimized and addresses needs across all departments.

P-11. Milestone: Plan development of/implement a tethered registry to capture patients enrolled in chronic disease management program

P-11.1. Metric: Documentation of plan / completion of implementation

a. Data source: Performing provider's documentation

b. Rationale/Evidence: Tethering program records to patient registries allows for enhanced monitoring and decision making at point of contact.

P-12. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any

solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-12.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-12.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.

a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-13. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.

P-13.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.

a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals

b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-14. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.

P-14.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.

a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-14.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.
a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]
P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]
a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
b. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones:

I-15. Milestone: Increase the percentage of patients enrolled in the registry.

I-15.1. Metric: Percentage of patients in the registry; metric may vary in terms of measuring absolute targets versus increasing the proportion of patients meeting a specific criteria (e.g., medical home patients, patients with a targeted chronic condition); below are potential specifications:

a. Numerator: Number of patients in registry

b. Denominator: Number of patients assigned to this clinic for routine care (i.e., the clinic is the "medical home")

c. Data Source: Registry or EHR

d. Rationale/Evidence: Supports work of panel management. Establishes patient population for a medical home. (For measurement purposes, a clinic may remove patients from denominator who, once offered a medical home, choose to continue to receive care at multiple sites).

I-16. Milestone: Increase the number of patient contacts recorded in the registry relative to baseline rate.

I-16.1. Metric: Total number of in-person and virtual (including email, phone and web-based) visits, either absolute or divided by denominator.

a. Numerator: Number of patient contacts recorded in the registry

b. Denominator: Number of targeted patients in the registry ("targeted" as defined by Performing Provider)

c. Data source: Internal clinic or hospital records/documentation

d. Rationale/evidence: help physicians and other members of a patient's care team identify and reach out to patients who may have gaps in their care.

I-17. Milestone: Use the registry to identify patients and families that would benefit from targeted patient education services. Develop and implement patient and family training programs, education, and/or teaching tools related to the target patient group using evidence-based strategies such as: teach-back, to reinforce and assess if patient or learner is understanding, patient self-management coaching, medication management, nurse and/or therapist-based education in primary care sites, group classes or patients' homes and standardized teaching materials available across the care continuum.

I-17.1. Metric: Assess, select, and/or develop patient education tools based on nationally recognized tools previously developed.

I-17.2. Metric: Development of tool for documenting the existence of patient's self-management goals in patient record for patients with chronic disease(s) at defined pilot sites(s).

I-17.3. Metric: Establishment of training programs developed and conducted by clinicians.

a. Numerator: Number of patients of a certain target group involved in training and education programs.

b. Denominator: Total number of patients in the target group or the clinic.

c. Data Source: Internal clinic or hospital records/documentation.

d. Rationale/Evidence: Help patients and their families to manage and self-manage their chronic disease/condition or MCCs.

I-18. Milestone: Perform routine follow-up monitoring to ensure adherence to the disease management program

I-18.1. Metric: As measured by the # of patients adhering to the recommended program regimen compared to the total number of patients following a program regimen – using the patient registry

a. Numerator: Number of patients of a certain target group involved in disease management programs.
b. Denominator: Total number of patients in the target group or the clinic.
c. Data Source: Internal clinic or hospital records/documentation
d. Rationale/Evidence: Improve effective management of chronic conditions and ultimately improve patient clinical indicators, health outcomes and quality, and reduce unnecessary acute and emergency care utilization.

I-19. Milestone: Spread registry functionality throughout Performing Provider facilities

I-19.1. Metric: Increase the number of clinics/sites associated with the Performing Provider's facility that are providing continuity of care for the defined population using the disease management registry functionality.

a. Numerator: Number of sites with registry functionality
b. Denominator: Total number of sites (at one provider level if respective provider has multiple clinics; or at RHP level);
c. Data Source: Registry reports
d. Rationale/Evidence: To enhance coordination and improvement efforts across clinics within a system (unique provider or RHP).

I-20. Milestone: Generate registry-based reports for each provider/care team for the care delivered outside the office visit, which may include historical and peer comparisons to help providers see how well they are managing their patients chronic health needs compared to other doctors in the hospital/clinic system.

I-20.1. Metric: Increase or achieve number or reports sent out to a number or percent of primary care providers over the 12-month period.

a. Number of unique reports provided during the reporting period.
b. Data Source: Registry and/or EHR.
c. Rationale/Evidence: Registry reports will alert providers to any variations in care across historical trends and peer comparisons.

I-20.2. Metric: Number or percent of contacted patients for whom a visit is scheduled

a. Numerator: number of scheduled visits that result from a contact initiated from a registry prompt.
b. Denominator: Number of contacts initiated from registry prompts.
c. Data Source: Registry reports, schedule management system.
d. Rationale/Evidence: This metric will link the number of patient visits that are a result of staff using the registry reminder system for patients that are overdue for services or need follow-up care.

I-20.3. Metric: Relative improvement in selected NQF, or other evidence based measure, for disease indicator for targeted disease or MCC group (e.g., for diabetes, improved LDL and HbA1c). Relative improvement to be reported along with baseline and re-measurement values for selected NQF measure. Relative improvement = (baseline – remeasurement)/ baseline

a. Numerator: as indicated by selected Milestone
b. Denominator: as indicated by selected Milestone
c. Data Source: EHR, Registry
d. Rationale/Evidence: This metric aims to demonstrate improvements in patient outcomes for provider selected targeted disease.

I-21. Milestone Increase the number of clinicians and staff using the registry

I-21.1. Metric: Number of clinicians and staff using the registry

a. Numerator: Number of clinicians and staff using the registry
b. Denominator: total number of clinicians and staff
c. Data Source: Registry report
d. Rationale/Evidence: The more staff that are using the registry, the more current it will be; therefore it will be more useful to monitor patients' conditions. Providers can also monitor their patients across a delivery system – such as from primary care to the hospital.

I-22. Milestone: Increase the percentage of patients with chronic disease entered into registry who receives instructions appropriate for their chronic disease or MCCs, such as: activity level, diet, medication management, etc.

I-22.1. Metric: Percentage of patients with chronic disease who receive appropriate disease specific discharge instructions

a. Numerator: the number of patients with chronic disease who receive appropriate disease specific instructions
b. Denominator: The number of patients with chronic disease or MCCs;
c. Data source: Disease registry and EHR.
d. Rationale/Evidence: A registry functioning at optimal capacity will allow providers to capture and collect data related to patient education. This data is also required for Meaningful Use.

I-23. Milestone: Interventions to implement a chronic disease management registry. The following metrics are suggested for use with an innovative project option to implement a chronic disease management registry but are not required.

I-23.1. Metric: Increase percentage of target population captured in the registry.

a. Numerator: Number of individuals of target population reached by the innovative project.
b. Denominator: Number of individuals in the target population.
c. Data Source: Documentation of target population reached, as designated in the project plan.
d. Rationale/Evidence: This metric speaks to the efficacy of the innovative project in reaching its targeted population.

I-23.2. Metric: Increased utilization of targeted recommended service(s).
- a. Numerator: Number of patients that are up to date on targeted service (e.g. HgbA1c testing every 6 months, LDL checked annually, etc.)
- b. Denominator: total number of patients eligible for that service.
- c. Data Source: Registry, EHR, claims or other Performing Provider source
- d. Rationale/Evidence: This measures the increased compliance with care recommendations

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]
- a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]
- b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

1.4 Enhance Interpretation Services and Culturally Competent Care

Project Goal:
Patients have access to timely, qualified health care interpreter services in their primary language, thereby increasing the likelihood of safe and effective care, open communication, adherence to treatment protocols, and better health outcomes. This Project Area applies to both written and oral interpretation services.

Cultural competence in health care describes the ability of systems to provide care to patients' with diverse values, beliefs and behaviors, including tailoring care delivery to meet patients' social, cultural, and linguistic needs. Cultural competence can be described both as a vehicle to increase access to quality care for all patient populations and as a business strategy to attract new patients and market share.

To achieve **organizational cultural competence** within the health care leadership and workforce, it is important to maximize diversity.

To achieve **systemic cultural competence** (e.g., in the structures of the health care system) it is essential to address such initiatives as conducting community assessments, developing mechanisms for community and patient feedback, implementing systems for patient racial/ethnic and language preference data collection, developing quality measures for diverse patient populations, and ensuring culturally and linguistically appropriate health education materials and health promotion and disease prevention interventions.

To attain **clinical cultural competence**, health care providers must: (1) be made aware of the impact of social and cultural factors on health beliefs and behaviors; (2) be equipped with the tools and skills to manage these factors appropriately through training and education; and (3) empower their patients to be more of an active partner in the medical management.

Project Options:

1.4.1 Expand access to written and oral interpretation services
Required core project components:
- a) Identify and address language access needs and/or gaps in language access
- b) Implement language access policies and procedures (in coordination with statewide and federal policies to ensure consistency across the state)
- c) Increase training to patients and providers at all levels of the organization (and organization-wide) related to language access and/or cultural competency/sensitivity
- d) Increase interpretation staff

1.4.2 Enhance Organizational Cultural Competence
Required core project components:
- a) Hire, promote, and retain minorities at all levels of the organization to increase diversity in the health care workforce.
- b) Develop a program that actively involves community representatives in the health care organization's planning and quality improvement meetings, whether as part of the board or as part of focus groups.

1.4.3 Enhance Systemic Cultural Competence
Required core project components:

a) Develop policies and procedures to measure systemic culture competence, or use existing evidence-based culturally competency assessment tool (e.g., CAHPS Cultural Competency Supplement).

b) Adopt and implement all 14 CLAS standards, including those that are not federal mandates.8Conduct CLAS Standards trainings at facilities

c) Identify federal and state reimbursement strategies for interpreter services and identify community resources and partnerships to develop the needed workforce.

d) Provide staff training around Title VI requirements mandating the provision of interpreter services in health care settings.

e) Identify and use tools to detect medical errors that result from lack of systemic cultural competence, including those stemming from language barriers (e.g., taking a prescribed medication incorrectly); misunderstanding health education materials, instructions, or signage (e.g., inappropriately preparing for a diagnostic or therapeutic procedure, resulting in postponement or delay); and misunderstanding the benefits and risks of procedures requiring informed consent.

f) Implement projects to address medical errors resulting from systemic cultural competency.

1.4.4 Clinical Cultural Competence: Develop cross-cultural training program that is a required, integrated component of the training and professional development of health care providers at all levels. The curricula should:

- increase awareness of racial and ethnic disparities in health and the importance of socio-cultural factors on health beliefs and behaviors;
- address the impact of race, ethnicity, culture, and class on clinical decision making;
- develop tools to assess the community members' health beliefs and behaviors
- Develop human resource skills for cross-cultural assessment, communication, and negotiation.

1.4.5 Implement Quality improvement efforts that include culturally and linguistically appropriate patient survey methods as well as process and outcome measures that reflect the needs of multicultural and minority populations.

1.4.6 Clinical Cultural Competence: Develop programs to help patients navigate the health care system and become a more active partner in the clinical encounter.

1.4.7 "Other" project option: Implement other evidence-based project to enhance interpretation services and culturally competent care in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project. Milestone I-18 includes suggestions for improvement metrics to use with this innovative project option.

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[8] http://minorityhealth.hhs.gov/assets/pdf/checked/finalreport.pdf

Note: All of the project options in project area 1.4 should include a component to conduct quality improvement for the project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, "lessons learned," opportunities to scale all or part of the project to a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations.

Rationale:
The 2010 United States Census confirmed that our nation's population has become more diverse than ever before, and this trend is expected to continue over this century. As we become a more ethnically and racially diverse nation, health care systems and providers need to reflect on and respond to patients' varied perspectives, values, beliefs, and behaviors about health and well-being. Failure to understand and manage socio-cultural differences may have significant health consequences for minority groups in particular.

Various systemic issues have been identified in the literature and by the health care experts. While this was more obvious in poorly constructed and complicated systems that are not responsive to the needs of diverse patient populations, the issue of language discordance between provider and patient was of foremost importance. Systems lacking interpreter services or culturally and linguistically appropriate health education materials lead to patient dissatisfaction, poor comprehension and adherence, and lower-quality care. According to various studies, care experts in government, managed care, academia, and community health care make a clear connection between cultural competence, quality improvement, and the elimination of racial/ethnic disparities.

Process Milestones:

P-1. Milestone: Conduct an analysis to determine gaps in language access and culturally competent care[9]. It is recommended that all providers engage in this type of analysis or demonstrate that this analysis has already been completed.

- P-1.1. Metric: Gap analysis
  - a. Data Source: Gap analysis
  - b. Rationale/Evidence: It is important to identify needs in order to address those needs/gaps.

P-2. Milestone: Develop a program to enhance organizational, systemic or clinical culture competence as described in the project options.

- P-2.1. Metric: Develop and implement program to improve cultural competence
  - a. Data Source: Program materials
  - b. Rationale/Evidence: TBD by provider, in response to identified patient needs and opportunities for improvement.

P-3. Milestone: Implement language access policies and procedures

- P-3.1. Metric: Submission of policies and procedures, for example based on Straight Talk: Model Hospital Policies & Procedures on Language Access[10]

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9 http://www.hrsa.gov/culturalcompetence/healthdlvr.pdf
10 http://www.diversityrx.org/resources/straight-talk-model-hospital-policies-and-procedures-language-access

a. Data Source: Performing Provider policies and procedures;
b. Rationale/evidence: providers involved in cultural competence programs are more likely to be contributing to the community benefit.

P-4. Milestone: Expand qualified health care interpretation technology
P-4.1. Metric: Video or audio conferencing interpreter terminals and/or areas/units of the Performing Provider with access to health care interpretation technology, for example:
a. Numerator: Number of terminals of video or audio conferencing available in each unit/department/clinics.
b. Denominator: Total number of video or audio conferencing terminals in the health system.
c. Data Source: Automated report (such as from Health Care Interpreter Network or Video Medical Interpretation and/or other encounter data report)
d. Rationale/Evidence: Provision of interpreter services results in patients asking more questions, having a better understanding of treatment plans, and reporting higher patient satisfaction scores.

P-5. Milestone: Train/certify additional health care interpreters
P-5.1. Metric: Expand capacity of qualified health care interpretation workforce
a. Numerator: Number of newly trained/certified interpreters
b. Denominator: Total number of trained/certified interpreters
c. Data Source: HR workforce training data, program materials
d. Rationale/Evidence: It is important to make sure staff are fully trained and have the proper certifications necessary to optimize their performance in order to increase language access

P-6. Milestone: Train/certify health care interpreters in additional/new languages
P-6.1. Metric: Expand capacity of qualified health care interpretation workforce
a. Numerator: Number of trained/certified workers certified to interpret in additional/new languages
b. Denominator: Total number of trained/certified interpreters
c. Data Source: HR workforce training data, program materials
d. Rationale/Evidence: Health care interpreters certified to interpret in multiple languages is another mechanism to expand existing workforce capacity.

P-7. Milestone: Train a number or proportion of providers (and other staff) to appropriately utilize health care interpreters (via video, phone or in-person)
P-7.1. Metric: Expand language access utilization

a. Numerator: Number of trained providers/staff
b. Denominator: Total number of relevant providers/staff (relevant as defined by Performing Provider)
c. Data Source: HR workforce training data, program materials
d. Rationale/Evidence: It is important to make sure that providers and staff knows when and how to appropriately utilize the qualified health care interpretation services available in order to increase language access.

P-7.2. Metric: Increase number of staff using the available, qualified health care interpreter services.
a. Numerator: Number of staff that have requested and used interpreter services during the reporting period
b. Denominator: number of relevant staff
c. Data Source: EHR or other provider administrative records.
d. Rationale: This metric explores the impact of interpreter training on staff comfort with using those services.

P-8. Milestone: Develop program to improve staff cultural competency and awareness
P-8.1. Metric: Increase number of champions/staff that are designated and trained in a population's culture and unique needs
a. Numerator: Number of relevant staff trained
b. Denominator: Total number of relevant staff members
c. Data Source: HR workforce training data, program materials
d. Rationale/Evidence: Cultural competency and awareness can improve patient-provider/staff communication and help to build trust in order to provide equitable and appropriate health care.

P-9. Milestone: Generate prescription labels in a patient's preferred written language with easy-to-understand directions
P-9.1. Metric: Number of prescriptions labels translated
a. Numerator: Number of prescription labels translated
b. Denominator: Total number of prescriptions filled for patients whose preferred written or spoken language is not English.
c. Data Source: Report
d. Rationale/Evidence: Translation enables appropriate use of prescriptions, helping to prevent incorrect use of medications, which can result in serious health conditions. See *Medical Care* (June 2009 and JCAHO White Paper[11]).

P-10. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the

11 http://www.languageline.com/main/files/wp_joint_commission_022211.pdf

provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-10.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-10.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.

a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-11. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.

P-11.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.

a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals

b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-12. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.

P-12.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.

a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-12.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.
a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]
P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]
a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
b. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones:

I-13. Milestone: Improve language access

I-13.1. Metric: The number of qualified health care interpreter encounters per month,[12] based on one of the reporting months within the prior year

a. Numerator: Total number of remote video/voice and/or in-person interpreter encounters recorded per month.

b. Denominator: Total number of encounters recorded per month

c. Data Source: Automated report (such as from Health Care Interpreter Network or Video Medical Interpretation and/or other encounter data report)

d. Rationale/Evidence: Interpreter encounters per month is the current industry standard for how to measure language access. As a result of high numbers of patients whose primary language is not English, the current provision of interpretation services is not meeting the demand. Provision of interpreter services results in patients asking more questions, having a better understanding of treatment plans, and reporting higher patient satisfaction scores (Ku, *Health Affairs*, 2005).

I-14. Milestone: Increase number or percent visits by patients whose preferred language is not English that are facilitated by qualified health care interpreters

I-14.1. Metric: Expand qualified health care interpretation workforce

a. Numerator: The number of visits by patients whose preferred language is not English that are facilitated by qualified health care interpreters

b. Denominator: Total number of visits by patients whose preferred language is not English Data Source: TBD by Performing Provider

c. Rationale/Evidence: The metric is one way to potentially measure whether demand and supply are aligned, allowing adjustments to be made so that language access is increased.

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12 "Qualified health care interpreter" is defined as one who has: 1) been trained in healthcare interpreting; 2) adheres to the professional code of ethics and protocols of healthcare interpreters; 3) is knowledgeable about medical terminology; and, 4) can accurately and completely render communication from one language to another. This definition can be found in the JCAHO standards for interpreters which recommends hospital policies and procedures to access interpreters that reflect a commitment to language access, including lists of procedures requiring health care interpretation, a definition of qualified health care interpreter, and maximum wait times for the interpretation encounter. Please see Texas Association of Healthcare Interpreters and Translators.

I-15. Milestone: Increase preventive and primary care visits for patients whose preferred language is not English within clinics offering interpretation services.

I-15.1. Metric: Average number of primary or preventive care visits by patients whose preferred language is not English.

a. Numerator: Number of visits by patients whose preferred language is not English

b. Denominator: Number of patients whose preferred language is not English

c. Data Source: EHR, Claims

d. Rationale/Evidence: Language is often identified as a barrier to seeking primary and preventive care for patients with Limited English Proficiency. Offering language services should increase the use of these services.

I-16. Milestone: Reduction in the number of medication errors and improvement in medication adherence in patients whose preferred language is not English

I-16.1. Metric: Number of medication errors

a. Numerator: Number of documented medication errors due to language preference during the reporting period.

b. Denominator: Total number of documented medication errors during the reporting period.

c. Data Source: EHR

d. Rationale/Evidence: Offering language services should decrease the incidence of medication errors in patients whose preferred language is not English.

I-16.2. Metric: Medication Adherence (Compliance): Medication Possession Ratio (MPR) for chronic medications for individuals over 18 years of age in patients whose preferred language is not English - NQF 0542- (modified)[13]

a. Numerator: The sum of the days supply that fall within the measurement window for each class of chronic medications for each patient in the denominator.

b. Denominator: MPR for patients whose preferred language is not English:

- New users: Number of days from the first prescription to the end of measurement period.
- Continuous users: Number of days from the beginning to the end of the measurement period.

c. Data Source: Drug claims data

d. Rationale/Evidence: 14,15 Poor adherence to treatment regimens has long been recognized as a substantial roadblock to achieving better outcomes for patients. Data show that as many as half of all patients do not adhere faithfully to their prescription-medication regimens — and the result is more than $100 billion spent each year on avoidable hospitalizations.1 Non-adherence to medication regimens also affects the quality and length of life; for example, it has been estimated that better adherence to antihypertensive treatment alone could prevent 89,000 premature deaths in the United States annually. 16Offering language services should increase medication adherence in patients whose preferred language is not English.

[13] http://www.qualityforum.org/MeasureDetails.aspx?actid=0&SubmissionId=880#k=medication%20adherence
[14] https://www.urac.org/MedicationAdherence/includes/Nau_Presentation.pdf
[15] http://www.pqaalliance.org/files/PDCvsMPRfinal.pdf
[16] http://www.nejm.org/doi/full/10.1056/NEJMp1002305

I-16.3. Metric: Medication Adherence (Compliance): Proportion of Days Covered (PDC) for chronic medications for individuals over 18 years of age in patients whose preferred language is not English.

a. Average of individual PDC rates for each chronic medication in all patients whose preferred language is not English.
   - (Patient level) Numerator: number of days covered by the prescription fills during the denominator period.
   - (Patient level) Denominator: number of days between the first fill of the medication during the measurement period and the end of the measurement period

b. Data Source: Drug claims data

c. Rationale/Evidence: The Pharmacy Quality Alliance (PQA) has developed, tested and endorsed numerous measures of medication-use quality. PQA members identified medication adherence as an important component of medication-use quality, and therefore PQA sought to endorse a standard method for calculation of medication adherence using data that would be widely available across prescription drug plans and pharmacies. After reviewing the extant literature and conducting tests of draft measure specifications, PQA chose to endorse the method known as Proportion of Days Covered (PDC). [8]

I-17. Milestone: Reduce wait time for interpretation encounters

I-17.1. Metric: The percentage of encounters in which the patient wait time for an interpreter is 15 minutes or less, as specified in *Speaking Together, National Quality Forum or similar* measures,[17] or Average wait time for interpretation encounter, as measured by *Straight Talk: Model Hospital Policies & Procedures on Language Access, National Quality Forum or similar.*

a. Numerator: number of encounters with average wait time <15 minutes

b. Denominator: total number of encounters that required interpreter;

c. Data Source: Interpreter services documentation

17 http://www.rwjf.org/qualityequality/product.jsp?id=29660 or NQF #1828 L3: Patient wait time to receive interpreter services

I-18. Milestone: Implement intervention to increase access to language services and culturally competent care. The following metrics are suggested for use with an innovative project option to increase access to language services and culturally competent care but are not required.

I-18.1. Metric: Increase percentage of target population reached.

a. Numerator: Number of individuals of target population reached by the innovative project.

b. Denominator: Number of individuals in the target population.

c. Data Source: Documentation of target population reached, as designated in the project plan.

d. Rationale/Evidence: This metric speaks to the efficacy of the innovative project in reaching it targeted population.

I-18.2. Metric: Increased scores on standardized and evidence based cultural competence assessment tool. [18].

a. Numerator: Total number of patient assessment responses that were satisfactory or better

b. Denominator: Total number of assessments administered.

c. Data Source: Assessment reports

d. Rationale/Evidence: This measures the impact of the innovation project on cultural competence.

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]

b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).

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18 http://www.nyspi.org/culturalcompetence/what/pdf/NYSPI-CECC_CulturalCompetenceAssessment.pdf

- Metric: Other program output measure as identified by the performing provider.

1.5 Collect Valid and Reliable Race, Ethnicity, and Language (REAL) Data to Reduce Disparities

In 2002, the Institute of Medicine report *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*[19]*, signified a new era of national attention to racial and ethnic disparities in the American health care system. Corroborating that report, many research studies have established that Americans* do not all have equal access to health care, or experience similar health care quality and outcomes. Low-income, racial and ethnic minority, limited-English proficient, and other underserved populations often have higher rates of disease, fewer treatment options, reduced access to care, and lower satisfaction with care. A key prerequisite for measuring equity of care and addressing disparities is to collect valid and reliable patient demographic data on race, ethnicity, and preferred language (REAL data). These data elements must be effectively linked to data systems used in health care service delivery (to tailor care to patient needs), as well as data systems used in quality improvement (to identify disparities). Creating organizational systems for capturing REAL data is a long and resource-intensive process. Currently, the processes for analyzing equity of care are mostly piecemeal and limited in scope, taxing organizational resources. However, in the state of Texas there are significant barriers to effective collection and utilization of these patient demographic data for public hospitals. To address these barriers, key next steps for public hospitals systems include developing tools, HIT protocols and training curricula to improve the collection and utilization of REAL data elements, which is the foundation for achieving significantly greater efficiency and cost-effectiveness in measuring equity of care, thus enabling the designs of more successful efforts to eliminate health care disparities.

Project Goal:
To improve the collection of valid and reliable self-reported data on the demographics of patients receiving care, the quality of care delivered, and implementing stratification capabilities to stratify clinical/quality data, and analyzing data by relevant demographic categories: race, ethnicity, sex, primary language and disability status.[20] Recently finalized data collection standards for surveys of demographic categories were released by HHS and will be used in the process of developing standards for administrative data collection for the same 5 categories. RHPs will work to implement initiatives, promote training, and accelerate capacity building, community engagement and empowerment. The project focuses on efforts to reduce health and mental health disparities, disparities among racial/ethnic groups, women, seniors, children, rural populations, and those with disabilities and their families.

Project Options:

1.5.1 Train patients and staff on the importance of collecting REAL data (For project option 1.5.1, the provider must do both subpart (i) and subpart (ii), If the provider is not using existing curriculum. If the provider is using existing curriculum, only subpart (ii) is required.):

i. Develop curriculum that includes effective strategies to explain relevance of collecting REAL data to patients and staff. Education about the value of the information for patient care, with clear examples of the benefits of data collection is central to an effective training.

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19 http://www.iom.edu/Reports/2002/Unequal-Treatment-Confronting-Racial-and-Ethnic-Disparities-in-Health-Care.aspx
20 http://minorityhealth.hhs.gov/templates/browse.aspx?lvl=2&lvlid=208

ii. Train patients and staff on the importance of collecting REAL data using developed or existing curricula.

1.5.2 Implement intervention that involves collaborating/partnering/ instituting data sharing agreements with Medicaid agencies, public health departments, academic research centers, other agencies, etc. to better assess patient populations and aid in the evaluation of health disparities

1.5.3 Implement project to enhance collection, interpretation, and / or use of REAL data. Required core project components:

a) Redesign care pathways to collect valid and reliable data on race, ethnicity, and language at the point of care

b) Implement system to stratify patient outcomes and quality measures by patient REAL demographic information in order to identify, analyze, and report on potential health disparities and develop strategies to address goals for equitable health outcomes. NOTE: Providers are encouraged to stratify outcomes and measures using both two-way and three-way interactions (race and quality; gender, race, and quality)

c) Develop improvement plans, which include a continuous quality improvement plan, to address key root causes of disparities within the selected population.

d) Use data to undertake interventions aimed at reducing health and health care disparities (tackling "the gap") for target patient populations through improvements in areas such as f preventive care, patient experience, and/or health outcomes.

1.5.4 "Other" project option: Implement other evidence-based project to implement and use REAL data in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project. Milestone I-12 includes suggestions for improvement metrics to use with this innovative project option.

Note: All of the project options in project area 1.5 should include a component to conduct quality improvement for the project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, "lessons learned," opportunities to scale all or part of the project to a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations.

Rationale:

Several RHPs within Texas focus on health disparities in communities through research, education, and community relations. To build upon the existing infrastructure to address health disparities in Texas, RHPs will select projects appropriate to specific populations based on relevancy to the RHP needs assessment. Some populations experience disparities in health, quality of care, health outcomes, and incidence as related to conditions such as: tuberculosis, congestive heart failure, stroke, COPD, Chlamydia, cervical cancer, liver cancer, stomach cancer, gallbladder cancer, child and adolescent leukemia, neural tube defects, other birth defects, obesity, diabetes, and pesticide poisoning. Disparities can been seen among groups based on race and ethnicity, language, economic factors, education, insurance status, geographic location (rural vs. urban, zip code) , gender, sexual orientation and many

other social determinants of health. The collection of REAL data helps providers to delineate potential categories of differences in observed health status.

Process Milestones:

P-1. Milestone: Develop REAL data template and/or integrate it into data warehouse, electronic health record (EHR), and/or registries

P-1.1. Metric: Documentation of REAL data template

a. Data Source: Print screen, report, printout or another source of documentation showing capability to integrate REAL data, REAL database, data warehouse, EHR or registry

b. Rationale/Evidence: The need to collect REAL data is a widely-recognized best practice in the U.S. health care system (e.g., The Joint Commission, the Institute of Medicine, and others).

P-2. Milestone: Modify registration screens and written registration materials in order to increase the collection of consistent, valid and reliable data

P-2.1. Metric: Documentation of registration screens in place

a. Data Source: Submission of registration print-screen, patient registration system

b. Rationale/Evidence: Patient registration is the primary point of entry of patient REAL data.

P-3. Milestone: Develop curriculum or implement an existing evidence-based curriculum that includes effective strategies to explain relevance of collecting REAL data to patients and staff

P-3.1. Metric: Number or proportion of staff trained on curriculum

a. Number or percent of staff trained over baseline

b. Data Source: HR workforce training data

c. Rationale/Evidence: Staff training is crucial to overcome discomfort at collecting REAL data[21] and to ensure valid, reliable collection of data based on best practices.

P-3.2. Metric: Improvement in Pre-Post knowledge assessment following training

a. Data Source: Assessment tool, HR workforce training data

b. Rationale/Evidence: Staff training is crucial to overcome discomfort at collecting REAL data[22] and to ensure valid, reliable collection of data based on best practices.

P-4. Milestone: Implement standardized policies and procedures to ensure the consistent and accurate collection of data

P-4.1. Metric: Description of elements of the system

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21 See, for example, HRET Disparities Toolkit, http://www.hretdisparities.org

22 See, for example, HRET Disparities Toolkit, http://www.hretdisparities.org

a. Data Source: Policies, procedures, or other similar sources
b. Rationale/Evidence: In order to stratify quality and safety measures by REAL data, an organization first needs to establish processes to routinely conduct such review.

P-5. Milestone: Develop a plan to propagate, establish, and document standard REAL data in all relevant patient care systems participating in enterprise standard registration approach.

P-5.1. Metric: Description of elements of the system

a. Data Source: Documentation of system/processes being implemented, Policies, procedures, or other similar sources
b. Rationale/Evidence: In order to stratify quality and safety measures by REAL data, an organization first needs to establish processes to routinely conduct such review.

P-6. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-6.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-6.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.

a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-7. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim

measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.

P-7.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.

a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals

b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-8. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.

P-8.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.

a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-8.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.

a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]

P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
b. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones:

I-9. Milestone: Collect valid, reliable REAL data fields as structured data, using a uniform framework.[23] This framework provides a process improvement tool for health care organizations to systematically collect demographic and communications data from patients or their caregivers.

I-9.1. Metric: The number or percent of patients registered with the Performing Provider.

a. Numerator: Number of unique patients registered with designated REAL data fields
b. Denominator: Number of total unique patients registered
c. Data Source: Registry, electronic health record, or other registration system
d. Rationale/Evidence: The capacity to stratify quality data by REAL data is foundational to being able to identify and address health care disparities.
Note 1: To make sure that data is collected in a way that is comparable, the unit of analysis should be defined very specific; for example in a hospital is anyone in an inpatient stay, an observation unit stay, or an emergency department visit or all. Measures should be collected across different hospital wards or outpatient specialties.
Note 2: In that same vein, entities should identify real data fields and valid values. For example, OMB race categories along with 31 ethnicity categories do not necessarily match ANSI claims race and ethnicity categories or Meaningful Use categories.

[23] http://www.iom.edu/Reports/2009/RaceEthnicityData.aspx

I-10. Milestone: Analyze and report on quality outcomes by REAL data categories to identify potential areas of disparities, (e.g., such as utilization of preventive care, improving patient experience and/or various health outcomes)

I-10.1. Metric: REAL data analysis of outcomes stratified by REAL data elements

a. Documentation of REAL data analysis

b. Data Source: Data warehouse, EHR or registry

c. Rationale/Evidence: Once accurate REAL data are collected on patients, they must be utilized for quality improvement purposes.[24] All Performing Providers choosing this project will have a targeted improvement goal for each demonstration year. Providers should tell how and where reporting will happen.

I-11. Milestone: Identify top three health care disparities within the patient population and develop an improvement plan to address them. Specifically,

(1) Conduct an analysis of health outcomes by REAL data fields.

(2) Submit the top three targeted disparities.

(3) Submit the improvement plan to address those disparities.

I-11.1. Metric: Documentation of disparities and improvement plan.

a. Data Source: REAL database, data warehouse, EHR or registry

b. Rationale/Evidence: The purpose of identifying disparities is to ultimately address root causes through effective quality improvement efforts. Often, providers are not aware of health care disparities. The use of data will help to uncover these disparities. Once the disparities are identified, it is important to put in place a plan to improve them. Thus, payment would be tied to (1) identification of the disparities, including measurement methodology, and (2) submitting a plan to correct the action.

I-12. Milestone: Implement intervention to make improvements in REAL data collection and use. The following metrics are suggested for use with an innovative project option to make improvements in REAL data collection and use but are not required.

I-12.1. Metric: Documentation of increased number of unique patients with documented REAL data using innovative program option. Demonstrate improvement over prior reporting period (baseline for DY2).

a. Numerator: Total number of unique patients encountered in the clinic for reporting period that have documented REAL data collected.

b. Denominator: Total number of unique patients encountered in the clinic for reporting period

c. Data Source: Registry, EHR, claims or other Performing Provider source

d. Rationale/Evidence: This measures the increased capacity to collect and effectively utilize REAL to improve quality of care.

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24 See, for example, Disparities Solutions Center's Improving Quality and Achieving Equity: A Guide for Hospital Leaders, http://www2.massgeneral.org/disparitiessolutions/guide.html

I-12.2. Metric: Improved compliance with recommended care regimens for targeted population.
   a. Numerator: % compliance with [recommended care regimen] (TBD by provider) of targeted patients
   b. Denominator: % compliance with [recommended care regimen] (TBD by provider) of all patients.
   c. Data Source: EHR, claims
   d. Rationale: TBD by provider

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]
   I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]
      a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]
      b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

1.6 Enhance Urgent Medical Advice

Project Goal:
Provide urgent medical advice so that patients who need it can access it telephonically, and an appropriate appointment can be scheduled so that access to urgent medical care is increased and avoidable utilization of urgent care and the ED can be reduced. The advice line provides callers with direct access to a registered nurse who can address their specific health needs with an on-demand service.

Project Options:

1.6.1 Expand urgent care services

1.6.2 Establish/expand access to medical advice and direction to the appropriate level of care to reduce Emergency Department use for non-emergent conditions and increase patient access to health care.
Required core project components:

a) Develop a process (including a call center) that in a timely manner triages patients seeking primary care services in an ED to an alternate primary care site. Survey patients who use the nurse advice line to ensure patient satisfaction with the services received.

b) Enhance linkages between primary care, urgent care, and Emergency Departments in order to increase communication and improve care transitions for patients.

c) Conduct quality improvement for project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, identifying "lessons learned," opportunities to scale all or part of the project to a broader patient population, and identifying key challenges associated with expansion of the project, including special considerations for safety-net populations.

1.6.3 "Other" project option: Implement other evidence-based project to implement and use urgent medical advice in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project. Milestone I-17 includes suggestions for improvement metrics to use with this innovative project option.

Note: All of the project options in project area 1.6 should include a component to conduct quality improvement for the project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, "lessons learned," opportunities to scale all or part of the project to a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations.

Rationale:
Several RHPs within Texas implemented an urgent medical advice line to serve patients within selected populations. To facilitate the diffusion of practices among RHPs, RHPs will have the opportunity to implement an urgent medical advice line to underserved and under privileged areas.
Implementation across Texas for an urgent medical advice line is not consistent between RHPs. As such, Texas will promote the implementation of an **urgent medical advice line** for underserved and

underprivileged populations (i.e. rural areas with limited access to healthcare, or areas where cultural differences may disincentivize the use of automated telephone services).

Process Milestones:

P-1. Milestone: Establish clinical protocols for an urgent medical advice line within 4 years of the demonstration period with a vetting process within the RHP. ED Clinical Protocols are currently used by several hospitals and hospital councils in Texas to determine appropriate and non-appropriate visits to the ED.[25]

P-1.1. Metric: Submission of complete protocols.

a. Data Source: Protocol documents

b. Rationale/Evidence: The nurse advice line would use the clinical protocols for patient triage.

P-2. Milestone: Collect baseline data, if medical advice line currently exists within RHP; Develop metrics specific to the medical advice line in use by the performing provider to track access to specified patient populations determined by RHP.

P-2.1. Metric: Documentation of baseline assessment.

a. Data Source: Provider documentation of baseline data collection

b. Rationale/Evidence: A determination of medical advice line needs and tracking metrics will allow providers to determine efficacy in reaching the targeted population.

P-3. Milestone: Train nurses on clinical protocols

P-3.1. Metric: Number of nurses trained

a. Numerator: number of nurses trained at baseline

b. Denominator: total number of nurses.

c. Data source: HR records.

d. Rationale/Evidence: Patients will experience expanded access to medical advice and direction to the appropriate level of care as a result of a higher number of nurses trained on clinical protocols.

P-4. Milestone: Establish/Expand nurse advice line by XX% based on baseline data to increase access to patients based on need within the RHP.

P-4.1. Metric: Nurse advice line

a. Numerator: Number of nurses staffing nurse advice line per shift

b. Denominator: Number of patient calls per shift

c. Data Source: Documentation of nurse advice line staffing levels.

d. Rationale/Evidence: Patients will experience expanded access to medical advice and direction to the appropriate level of care as a result of a higher ratio of nurses to patient calls.

P-5. Milestone: Establish a multilingual nurse advice line

P-5.1. Metric: Nurse advice line

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[25] http://wagner.nyu.edu/chpsr/index.html?p=25

a. Numerator: Number of nurses designated to staff a nurse advice line.
b. Denominator: number of nurses at baseline.
c. Data Source: HR documents or other documentation demonstrating employed and/or contracted nurses to staff a nurse advice line.
d. Rational/Evidence: Patients will experience expanded access to medical advice and direction to appropriate care for perceived urgent medical problems as a result of being able to call a nurse 24 hours per day.

P-6. Milestone: Inform and educate patients on the nurse advice line

P-6.1. Metric: Number or percent of targeted patients informed/educated

a. Numerator: Number of targeted patients informed/educated
b. Denominator: Number of targeted patients (targeted as defined by Performing Provider)
c. Data Source: Documentation in patient's paper or electronic medical record that patient was contacted and received information about accessing the nurse advice line and education about how to use the nurse advice line
d. Rationale/Evidence: Patients who are informed on how to access and utilize a nurse advice line are less likely to seek care for non-emergent conditions in the Emergency Department.

P-7. Milestone: Develop/distribute a bilingual (English and Spanish) patient-focused educational newsletter with proactive health information and reminders based on nurse advice line data/generated report identifying common areas addressed by the nurse advice line.

P-7.1. Metric: Newsletter distribution

a. Number of newsletters sent to patients over baseline
b. Data Source: Mailer vendor invoice
c. Rationale/Evidence: The nurse advice line can collect important data that may be representative of the types of concerns of the larger, general patient population. By monitoring the types of health care needs addressed through the nurse advice line, broader trends can be identified. Based on that, proactive health care guidance (e.g., when to get a screening test/immunization) can be disseminated to the larger patient population. In essence, this shares the learnings from the nurse advice line and disseminates preventive and other health care guidance to the broader patient population.

P-8. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-8.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-8.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.

a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-9. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.

P-9.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.

a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals

b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-10. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.

P-10.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.

a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-10.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.
a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]
P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]
c. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
d. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones:

I-11. Milestone: Volume of ED visits for the target population who used the help line.

I-11.1. Metric: % of ED visits for the target patient population using the help line in comparison to total # of ED visits for the target patient population

a. Numerator: Number ED visits for target population who used the call line

b. Denominator: # of people in target population who used the call line

c. Data Source: EHR, call line records, billing data

d. Rationale/Evidence: Targeted patients that access and utilize a nurse advice line are less likely to seek care for non-emergent conditions in the Emergency Department.

I-12. Milestone: Proportion of admissions/readmissions of ED visits that used the help line vs. those who did not use the help line.

I-12.1. Metric: Percent of ED visits for target population who did not use the call line and got admitted/readmitted to the hospital.

a. Numerator: Number of ED visits for target population who used the call line and got admitted/readmitted.

b. Denominator: Number of target population who visited the ED.

c. Data Source: Claims, EHR

I-13. Milestone: Increase in the number of patients that accessed the nurse advice line

I-13.1. Metric: Utilization of nurse advice line

a. Numerator: Number or percent of targeted patients that access the nurse advice line

b. Denominator: Targeted patients (targeted as defined by DPH system)

c. Data Source: TBD by Performing Provider but could include Call Center phone and encounter records and appointment scheduling software records

d. Rationale/Evidence: Targeted patients that access and utilize a nurse advice line are less likely to seek care for non-emergent conditions in the Emergency Department.

I-14. Milestone: Increase patients in defined population who utilized the nurse advice line and were given an urgent medical appointment via the nurse advice and appointment line when needed

I-14.1. Metric: Number of urgent medical appointments scheduled via the nurse advice line

a. Numerator: Number of patients in defined population who were scheduled for an urgent medical appointment via the nurse advice line

b. Denominator: Total number of patients in defined population (defined by Performing Provider)

c. Data Source: TBD by Performing Provider but could include Call Center phone and encounter records and appointment scheduling software records

d. Rationale/Evidence: Patients in defined population who utilize the nurse advice line and were given an urgent medical appointment when needed are less likely to seek non-emergency care in the Emergency Department.

I-15. Milestone: Increase patient satisfaction

I-15.1. Metric: Increase surveyed patients who believed the advice provided was appropriate

a. Numerator: Number of surveyed patients who accessed the nurse advice line and reported finding it helpful

b. Denominator: Total number of surveyed/respondents who accessed the nurse advice line

c. Data Source: Survey Tool Results

d. Rationale/Evidence: Patients who report they believed the advice they received was appropriate are more likely to not seek care in the Emergency Department for non-emergent conditions in the future.

I-16. Milestone: Increase patients in defined population who utilized the nurse advice line and were given a medical home appointment via the nurse advice and appointment line when the condition was not urgent

I-16.1. Metric: Number of medical home appointments scheduled via the nurse advice line

a. Numerator: Number of patients in defined population who were scheduled for an medical home appointment via the nurse advice line

b. Denominator: Total number of patients in defined population (defined by Performing Provider)

c. Data Source: TBD by Performing Provider but could include Call Center phone and encounter records and appointment scheduling software records

d. Rationale/Evidence: Patients in defined population who utilize the nurse advice line and were directed to a medical home when the health care needs of the patient are not urgent or emergent are less likely to seek non-emergency care in the Emergency Department. The goal is for the patients to establish a continued relationship with a medical home.

I-17. Milestone: Implement interventions to improve access to care of patients receiving urgent medical advice. The following metrics are suggested for use with an innovative project option to improve access to care of patients receiving urgent medical advice but are not required.

I-17.1. Metric: Documentation of increased number of unique patients served by innovative program. Demonstrate improvement over prior reporting period.

a. Total number of unique patients encountered in the clinic for reporting period.
b. Data Source: Registry, EHR, claims or other Performing Provider source
c. Rationale/Evidence: This measures the increased volume of visits and is a method to assess the ability for the Performing Provider to increase capacity to provide care.

I-17.2. Metric: Improved clinical outcomes of target population. The clinical outcomes can be either intermediate (e.g. in Diabetes: HbA1c, lipid profile, blood pressure, serum microalbumin) or end result (e.g. mortality, morbidity, functional status, health status, quality of life or patient satisfaction).

a. Numerator: Average [clinical outcome] (TBD by provider) of patients participating in Navigator program.
b. Denominator: Average [clinical outcome] (TBD by provider) of all patients.
c. Data Source: EHR
d. Rationale: TBD by provider

I-17.3. Metric: Improved compliance with recommended care regimens.

a. Numerator: % compliance with [recommended care regimen] (TBD by provider) of patients participating in Navigator program.
b. Denominator: % compliance with [recommended care regimen] (TBD by provider) of all patients.
c. Data Source: EHR, claims
d. Rationale: TBD by provider

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]
b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached

- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

1.7 Introduce, Expand, or Enhance Telemedicine/Telehealth

Project Goal:
Provide electronic health care services to increase patient access to health care. Telemedicine is the use of medical information exchanged from one site to another via electronic communications to improve patients' health status. Closely associated with telemedicine is the term "telehealth," which is often used to encompass a broader definition of remote healthcare that does not always involve clinical services. Videoconferencing, transmission of still images, remote monitoring of vital signs with a focus on the specialty care access challenges in rural communities, and continuing medical education are all considered part of telemedicine and telehealth.[26]

Telehealth is the use of electronic information and telecommunications technologies to support long-distance clinical health care, patient and professional health-related education, public health and health administration. Technologies include videoconferencing, the internet, store-and-forward imaging, streaming media, and terrestrial and wireless communications.[27]

Telemedicine is viewed as a cost-effective alternative to the more traditional face-to-face way of providing medical care (e.g., face-to-face consultations or examinations between provider and patient) that states can choose to cover under Medicaid. This definition is modeled on Medicare's definition of telehealth services (42 CFR 410.78). Note that the federal Medicaid statute does not recognize telemedicine as a distinct service.[28]

Telemedicine is not a separate medical specialty. Products and services related to telemedicine are often part of a larger investment by health care institutions in either information technology or the delivery of clinical care. Even in the reimbursement fee structure, there is usually no distinction made between services provided on site and those provided through telemedicine and often no separate coding required for billing of remote services. Telemedicine encompasses different types of programs and services provided for the patient. Each component involves different providers and consumers.[29]

Telemedicine Services:

Specialist referral services typically involves of a specialist assisting a general practitioner in rendering a diagnosis. This may involve a patient "seeing" a specialist over a live, remote consult or the transmission of diagnostic images and/or video along with patient data to a specialist for viewing later. Recent surveys have shown a rapid increase in the number of specialty and subspecialty areas that have successfully used telemedicine. Radiology continues to make the greatest use of telemedicine with thousands of images "read" by remote providers each year. Other major specialty areas include: dermatology, ophthalmology, mental health, cardiology and pathology. According to reports and studies, almost 50 different medical subspecialties have successfully used telemedicine.

Patient consultations using telecommunications to provide medical data, which may include audio, still or live images, between a patient and a health professional for use in rendering a diagnosis and

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[26] http://www.americantelemed.org/i4a/pages/index.cfm?pageid=3333
[27] http://www.hrsa.gov/ruralhealth/about/telehealth/
[28] http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Delivery-Systems/Telemedicine.html
[29] http://www.americantelemed.org/i4a/pages/index.cfm?pageid=3333

treatment plan. This might originate from a remote clinic to a physician's office using a direct transmission link or may include communicating over the Web.

Remote patient monitoring uses devices to remotely collect and send data to a monitoring station for interpretation. Such "home telehealth" applications might include a specific vital sign, such as blood glucose or heart ECG or a variety of indicators for homebound patients. Such services can be used to supplement the use of visiting nurses.

Medical education provides continuing medical education credits for health professionals and special medical education seminars for targeted groups in remote locations.

Consumer medical and health information includes the use of the Internet for consumers to obtain specialized health information and on-line discussion groups to provide peer-to-peer support.

Delivery Mechanisms:

Networked programs link tertiary care hospitals and clinics with outlying clinics and community health centers in rural or suburban areas. The links may use dedicated high-speed lines or the Internet for telecommunication links between sites. Studies by the several agencies within the U.S. Department of Health and Human Services, private vendors and assessments by ATA of its membership place the number of existing telemedicine networks in the United States at roughly 200. These programs involve close to 2,000 medical institutions throughout the country. Of these programs, it is estimated that about half (100) are actively providing patient care services on a daily basis. The others are only occasionally used for patient care and are primarily for administrative or educational use.

Point-to-point connections using private networks are used by hospitals and clinics that deliver services directly or contract out specialty services to independent medical service providers at ambulatory care sites. Radiology, mental health and even intensive care services are being provided under contract using telemedicine to deliver the services.

Primary or specialty care to the home connections involves connecting primary care providers, specialists and home health nurses with patients over single line phone-video systems for interactive clinical consultations.

Home to monitoring center links are used for cardiac, pulmonary or fetal monitoring, home care and related services that provide care to patients in the home. Often normal phone lines are used to communicate directly between the patient and the center although some systems use the Internet.

Web-based e-health patient service sites provide direct consumer outreach and services over the Internet. Under telemedicine, these include those sites that provide direct patient care.

Project Options:

1.7.1 Implement telemedicine program to provide or expand specialist referral services in an area identified as needed to the region.
Required core project components:
a) Provide patient consultations by medical and surgical specialists as well as other types of health professional using telecommunications

b) Conduct quality improvement for project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, identifying "lessons learned," opportunities to scale all or part of the project to a broader patient population, and identifying key challenges associated with expansion of the project, including special considerations for safety-net populations.

1.7.2 Implement remote patient monitoring programs for diagnosis and/or management of care. Providers should demonstrate that they are exceeding the requirements of the EHR incentive program.

1.7.3 Use telehealth to deliver specialty, psychosocial, and community-based nursing services

1.7.4 Develop a teledentistry infrastructure and use telehealth to provide dental and oral health services.

1.7.5 Use telehealth services to provide medical education and specialized training for targeted professionals in remote locations.

1.7.6 Implement an electronic consult or electronic referral processing system to increase efficiency of specialty referral process by enabling specialists to provide advice and guidance to primary care physicians that will address their questions without the need for face-to-face visits when medically appropriate.

1.7.7 "Other" project option: Implement other evidence-based project to expand/establish telemedicine/telehealth program to help fill significant gaps in services in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project. Milestone I-18 includes suggestions for improvement metrics to use with this innovative project option.

Note: All of the project options in project area 1.7 should include a component to conduct quality improvement for the project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, "lessons learned," opportunities to scale all or part of the project to a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations.

Rationale[30]:

One of the greatest challenges facing the U.S. healthcare system is to provide quality care to the large segment of the population, which does not have access to specialty physicians because of factors such as geographic limitations or socioeconomic conditions. The use of technology to deliver health care from a distance, or telemedicine, has been demonstrated as an effective way of overcoming certain barriers to care, particularly for communities located in rural and remote areas. In addition, telemedicine can ease the gaps in providing crucial care for those who are underserved, principally because of a shortage of sub-specialty providers.

[30] http://telehealth.utmb.edu/presentations/Benefits_Of_Telemedicine.pdf

The use of telecommunications technologies and connectivity has impacted real-world patients, particularly for those in remote communities. This work has translated into observable outcomes such as:

- improved access to specialists
- increased patient satisfaction with care
- improved clinical outcomes
- reduction in emergency room utilization
- cost savings

Nowhere are these benefits more evident than in Texas. With a land mass area of 268,820 square miles and a growing population of 25.1 million, Texas is the second largest US state by area and population.1 Its population growth rose more than 18.8 percent between 2000 to 2009, reflecting an increase that is more than double the national growth in this period.2 This rapid growth is attributed to a diversity of sources such as natural increases from the total of all births minus all deaths and to a high rate of net in-migration from other states and countries. Along with the increase in population, an ever-growing aging population (the state's older population, 65+, is expected to double that of the previous 8 years) has significantly affected the demand on the healthcare workforce as demands for quality care increased.

In its Statewide Health Plan 2011-2016 report[31], the Texas Statewide Health Council concluded: "Texas faces particular challenges with respect to physician and other healthcare workforces not primarily because of an overall shortage, but because of sharp disparities in the allocation of healthcare resources to different parts of the state. In the metropolitan areas outside the border, there is one physician in direct patient care for each 573 county residents. In the 32-county border region and in non-metropolitan Texas, the ratios are 2 to 3 times as high."

Although the overall supply of physicians has increased in Texas since 2000 from in-migration, the vast majority of these healthcare professionals resides and practices within four primary areas of Texas: Dallas, Houston, Austin, and San Antonio. Moreover, Texas has consistently lagged behind the US average in the ratio of physician supply per 100,000 of population, and the gap between the two appears to be increasing. In 2009, there were 25 counties with no physicians, and the counties with lowest ratios of providers to populations were by and large in West Texas, South Texas and the Panhandle.

Theoretically, resources such as healthcare would be distributed across the state in accordance with population density and needs. Realistically, however, geographical and economic barriers create significant disparities across the state, with rural and underserved communities enduring significantly greater barriers to accessing the care continuum. The supply ratios for a number of health professionals, including primary care physicians and mental health professionals, are lowest in rural, border and other health professional shortage areas. Data for 2009 indicated that out of the 254 counties in Texas, 118 counties are designated as whole county primary care Health Professional Shortage Areas (HPSAs) due to primary care doctor to patient ratios of 1:3500 or less, and 173 counties (68 percent of the state) are designated as whole county mental health HPSAs[2]

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[31] Texas Statewide Health Coordinating Council. 2011-2016 Texas State Health Plan Update. Texas Department of State Health Services. http://www.dshs.state.tx.us/chs/shcc/. Retrieved February 28, 2011

In Texas, communities are struggling to care for an increasing number of underserved, disadvantaged, and at-risk populations. In most communities, especially in rural areas, care is not organized to promote prevention and early intervention, coordinate services, or monitor access to and quality of care. Moreover, public and private funding to subsidize care remains inadequate, despite growing community needs associated with increases in the uninsured and aging populations. Consequently, many people are left to seek care in emergency rooms, often as a last resort, in an unmanaged and episodic manner. The costs of such care are borne by care-giving institutions, local governments, and, ultimately, taxpayers, many of whom are already burdened with the costs of meeting health-related costs of their own.

Given the various benefits observed through the provision of health care via telemedicine, there is a tremendous amount of momentum toward increasing access to care through the use of health information technologies, thereby creating an exciting and central role for innovation and implementation of new and advanced platforms for service delivery. Two such platforms include the use of wireless and telemonitoring technologies. It is our belief that healthcare delivery is about to make a significant leap forward. The development and installation of high-speed wireless telecommunications networks coupled with large-scale search engines and mobile devices will change healthcare delivery as well as the scope of healthcare services. It will allow for real-time monitoring and interactions with patients without bringing them into a hospital or a specialty care center. This real/near-time monitoring and interacting could enable a healthcare team to address patient problems before they require major interventions, creating a potentially patient-centered approach that could undoubtedly change our expectations of our healthcare system.

In conclusion, the overall goal of the proposed telehealth projects is to reduce disparities in access, outcome, cost and satisfaction that are created by geographic barriers. Specifically, we hope to achieve the following goals for the state's Medicaid population:

1.) increase the knowledge and capacity of rural primary care physicians to manage complex chronic conditions
2.) increase patients' timely access to specialty care and reduce geographic barriers;
3.) create the ability for specialists to provide direct patient consults to patients based at rural clinics
4.) improve efficiency in the referral process by letting specialists divert unnecessary referrals and decreasing the wait time for urgent referrals
5.) provide services in HPSAs
6.) enhance access to other health care services (case management, education, etc.)

Process Milestones:

P-1. Milestone: Conduct needs assessment to identify needed specialties that can be provided via telemedicine

P-1.1. Metric: Needs assessment to identify the types of personnel needed to implement the program and hiring of the respective personnel.

a. Submission of completed needs assessment
b. Data Source: Needs assessment
c. Rationale/Evidence: It is important to expand telemedicine to areas where greatest need and highest potential for impact is demonstrated in order to have optimal effect.

P-2. Milestone: Conduct needs assessment to identify needed services that could be delivered via telehealth.

P-2.1. Metric: Needs assessment

a. Submission of completed needs assessment
b. Data Source: Needs assessment
c. Rationale/Evidence: It is important to expand telehealth to areas where greatest need and highest potential for impact is demonstrated in order to have optimal effect.

P-3. Milestone: Implement or expand telemedicine program for selected medical specialties, based upon regional and community need.

P-3.1. Metric: Documentation of program materials including implementation plan, vendor agreements/ contracts, staff training and HR documents.

a. Submission of implementation documentation
b. Data Source: Program materials
c. Rationale/Evidence: It is important to expand telemedicine to areas where greatest need and highest potential for impact is demonstrated in order to have optimal effect.

P-3.2 Metric: Documentation of the number of consults delivered by each specialty

a. The number of patients who received diagnostic and treatment services via a specific telemedicine delivered service;
b. Data source: clinic log of health services by telemedicine service;
c. Rationale: documentation of the quantity of actual services provided via telemedicine after implementation

P-4. Milestone: Implement or expand telehealth program for targeted health services, based upon regional and local community need.

P-4.1. Metric: Documentation of program materials including implementation plan, vendor agreements/ contracts, staff training and HR documents.

a. Submission of implementation documentation
b. Data Source: Program materials
c. Rationale/Evidence: It is important to expand telehealth to areas where greatest need and highest potential for impact is demonstrated in order to have optimal effect.

P-4.2 Metric: Documentation of the quantity of actual telehealth services delivered after implementation

a. Submit the number of telemedicine/telehealth sessions provided via video-conferencing for remote health care providers along with the educational materials from the session;
b. Data source: log of tele-services by type of health care professionals and type of service;
c. Rationale: ensure that actual implementation occurred;

P-4.3 Metric: Pre and post-evaluations completed by remote health care providers demonstrating they gained knowledge and capacity on key areas of specialty knowledge

a. Provide specific survey to test the knowledge accumulated through the tele-service;
b. Data source: results of the pre and post teleservice survey;
c. Rationale: measure the impact of the teleservice;

P-5. Milestone: Implement remote patient monitoring program based on evidence based models and adapted to fit the needs of the population and local context.

P-5.1. Metric: Documentation of program materials including implementation plan, vendor agreements/ contracts, staff training and HR documents.

a. Submission of implementation documentation
b. Data Source: Program materials
c. Rationale/Evidence: Telemonitoring allows patients to be maintained in their home. Better follow-up of patients reduces the complications of chronic diseases such as diabetes, hypertension, or chronic heart failure. Telemonitoring may reduce patient travel, time off from work, and overall costs. Several systems have proved to be cost effective, such as home monitoring of high-risk pregnancies, infants, pediatric pacemaker patients, and patients suffering from chronic diseases. The cost of simple telemonitoring was evaluated to be approximately $70 per month. A standard emergency room charge is $260.11 Telemonitoring also responds to the emerging needs for home care.[32]

P-6. Milestone: Implement or expand medical education and specialized training programs via telehealth program

P-6.1. Metric: Submission and number of distinct curriculums delivered

a. Submission of documentation for all offered curriculums
b. Data Source: Program materials
c. Rationale/Evidence: Medical education provides continuing medical education credits for health professionals and special medical education seminars for targeted groups in remote locations.

P-6.2. Metric: Number of trainees attending via telehealth

a. Numerator: Number of trainees utilizing medical education program via telehealth
b. Data Source: Submission of program registration documents
c. Rationale/Evidence: Medical education provides continuing medical education credits for health professionals and special medical education seminars for targeted groups in remote locations.

P-7. Milestone: Create plan to monitor and enhance technical properties, bandwidth, of telemedicine/telehealth program.

P-7.1. Metric: Documentation of bandwidth capacity in relationship to program needs

[32] http://www.orcatech.org/papers/home_monitoring/05_Meystre_telemonitoring_current_state.pdf

a. Submission of bandwidth capacity assessment and anticipated bandwidth needs for optimal program functioning/expansion.
b. Data source: Bandwidth assessment and program plan
c. Rationale/Evidence: Greater bandwidth allows for more data to be transmitted more quickly. As demand and use of bandwidth increase in all areas of telecommunication, associated costs of each individual area of use will decrease. As other applications use bandwidth, the cost burden on any particular application, including telemedicine, will be reduced. Greater bandwidth enables greater resolution, use of real-time vs. store-forward images, full-motion imaging, and other properties that will expand the technical capacity of telemedicine.[33]

P-8. Milestone: Create plan to monitor and enhance internet use for telemedicine/telehealth program.

P-8.1. Metric: Documentation of expansion of services utilizing the internet as a medium.

a. Submission of plan identifying which services can be made available through internet applications as well as steps to implement these services.
b. Data source: Program plan
c. Rationale/Evidence: The Internet has considerable potential as a medium for tele-consultations, monitoring patient condition, and other unforeseen applications in telemedicine. Use of the Internet for tele-consultations and other telemedicine applications will move these applications into the mainstream of other communications used by physicians and other health care providers, decreasing the need for separate facilities (equipment, space, etc.), procedures, and telecommunications standards for telemedicine. Any developments that reduce the "separateness" of telemedicine from other parts of the health care system will improve its acceptance and efficiency.

As noted by the Association of Telehealth Services Providers, the potential impacts of the Internet and greater bandwidth in advancing the technical properties of telemedicine are linked[34]:

[33] http://aspe.hhs.gov/health/reports/AAET/aaet.htm#Ra
[34] http://aspe.hhs.gov/health/reports/AAET/aaet.htm#Ra

The Internet has become the common standard for transmission of nearly all types of data, including web-based data transfer, audio, and video. The reason that we don't use the Internet more for all of these things is that the bandwidth and switching capacity is not there. These will clearly grow in time, however, making the Internet Protocol the lingua franca of data transmission of all types. In the next ten years, virtually all telehealth transmissions will happen using Internet Protocol, whether or not the transmissions happen over the Internet. As Internet capacity grows, we expect that nearly all telehealth transactions will be done via the Internet. -- Association of Telehealth Service Providers (2000)

P-9. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-9.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-9.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.

a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-10. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.

P-10.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.

a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals
b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-11. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.

P-11.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.
a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-11.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.
a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]

P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]
a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
b. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones:

I-12. Milestone: Increase number of telemedicine visits for each specialty identified as high need

I-12.1. Metric: Number of telemedicine visits

a. Numerator: Number of visits in which patients are seen using telemedicine services for each type of medical or surgical subspecialty provided by specified timeframe (e.g. one year) and geographic area in a RHP or for individual provider.

b. Denominator: Number of patients referred to medical specialties

c. Data Source: EHR or electronic referral processing system; encounter records from telemedicine program

d. Rationale: demonstrate increase in access due to teleservices

I-12.2. Metric: RHPs and providers should provide analysis demonstrating how the telemedicine services provided align with their needs assessment.

a. Document the needs identified in needs assessment have been addressed;

b. Data source: List of Needs Assessment prioritized by year;

c. Rationale: demonstrate that health care providers are providing telemedicine specialty consults for the specialties identified as the greatest need for the community.

I-12.3. Metric: The telemedicine program and primary care providers will need to obtain a commitment from all specialists providing telemedicine consults that they will perform necessary diagnostic or therapeutic procedures that the specialist determines are necessary after the telemedicine consult (since many of the clinics do not have the on-site capacity for these procedures and lack adequate referral networks for Medicaid and uninsured patients).

a. Document commitment from all specialists they will provide the procedures determined during and following the teleconsult;

b. Data source: written agreement between PCP and specialist;

c. Rationale: ensure that specialists provide any indicated diagnostic or therapeutic procedures they determine are needed after the initial consult for uninsured and Medicaid patients

I-13. Milestone: Increase number of electronic "curbside consults" provided by specialists to primary care physicians through an electronic consults or electronic referral processing system.

a. Numerator: Number of electronic referrals that specialists can provide direct advice to the primary care providers on diagnosis and treatment without needing to actually have an encounter with the patient

b. Denominator: Number of patients referred to all medical specialties using referral processing system

c. Data Source: EHR or electronic referral processing system

d. Rationale/Evidence: Increased e-consultations will result in the patient's issue being resolved more frequently without need for a face-to-face visit with the specialist.

I-14. Milestone: Reduce wait times in high-impact specialty for consult for patient's condition.

I-14.1. Metric: Number of days until first available time for review and consultation for patient referred for telemedicine services

a. Numerator: Average number of days between referral date and first available appointment for patients referred for telemedicine specialty services

b. Denominator: Average number of days between referral date and first available appointment for all patients referred for specialty services

c. Data Source: Appointment scheduling software and or electronic referral management software

d. Rationale/Evidence: Patients are more likely to receive appropriate care when the wait time for review and consult of the condition for which they were referred is shortened.

I-15. Milestone: Reduce wait times for when patients are actually seen by high-impact specialists.

I-15.1. Metric: Number of days until referral initiated and patient is actually seen by each type of medical or surgical specialist via telemedicine services

a. Numerator: Average number of days between referral date and date that telemedicine consult is provided by specialist

b. Denominator: Average number of days between referral date and date that in-person consult is provided by specialist

c. Data Source: Appointment scheduling software and or electronic referral management software

d. Rationale/Evidence: Patients are more likely to receive appropriate care when the wait time for review and consult of the condition for which they were referred is shortened.

I-16. Milestone: Expand telemedicine program to additional clinics.

I-16.1. Metric: New telemedicine-enhanced clinics

a. Numerator: Number of clinics providing at least ten telemedicine visits per month.

b. Denominator: Number of clinics in system, community or region

c. Data Source: Appointment scheduling software records

d. Rationale/Evidence: Expanding to additional clinics allows increased access and is representative of system uptake of telemedicine or telehealth services.

I-17. Milestone: Improved access to specialists care or other needed services, e.g. community based nursing, case management, patient education, counseling, etc.

I-17.1. Metric: Percentage of patients in the telemedicine/telehealth program that are seeing a specialist or using the services for the first time.

a. Numerator: Number of patients participating in program that are using the each service for the first time during the reporting period
b. Denominator: Number of patients that are participating in the program or are in the target population.
c. Data source: EHR or other program records
d. Rationale/Evidence: In evaluation, utilization is often used as a proxy for access to care. For example, in one network's telepsychiatry program, 46% of those patients taking part in the program were seeing a psychiatrist for the first time, suggesting that psychiatric assistance was not available to these individuals before it was offered through telemedicine. It is important to note, however, that an initial surge in telemedicine utilization may reflect pent-up demand and may subside once this consultation backlog is handled. That is, an evaluation of access may reveal a spike in patient volume at the onset of a telemedicine program as patients who have yet to seek care may have their initial appointment via telemedicine. Following these initial visits, the immediate needs of the population have been met and thus the number of visits may drop until a steady, maintainable level is reached. Further, any estimate of the rate of patients seeing a provider for the first time in a telemedicine program should be compared to the rate for patients in conventional settings.[35]

I-17.2. Metric: Improved access to health care services for residents of communities that did not have such services locally before the program.

a. Numerator: Number of unique patients from geographically underserved area, HPSA, that receive each type of telemedicine or telehealth services.
b. Denominator: Number of residents in HPSA
c. Data Source: EHR
d. Rationale/Evidence: This is a measure of impact of the program on residents in counties that have been previously underserved.

I-17.3. Metric: Improved access to care coordination in a way that would otherwise not have occurred.

a. Number of real time multidisciplinary conferences with health care providers, including e-consultations, family and/or other non-clinical parties
b. Data Source: EHR
c. Rationale/Evidence: Real-time conferences rarely occur at a single location given the difficulty of having a team of local providers (e.g., teachers, parents, and therapists) travel to a larger health care center, or having specialists from the health care center travel to a remote location.[7]

[35] http://aspe.hhs.gov/health/reports/AAET/aaet.htm#Ra

I-18. Milestone: Implement interventions to achieve improvements in access to care of patients receiving telemedicine/telehealth services using innovative project option. The following metrics are suggested for use with an innovative project option to increase access to achieve improvements in access to care of patients receiving telemedicine/telehealth services but are not required.

I-18.1. Metric: Target population reached through telemedicine/telehealth program

a. Numerator: Number of individuals of target population reached by the telemedicine/telehealth program.

b. Denominator: Number of individuals in the target population.

c. Data Source: Documentation of target population reached, as designated in the project plan.

d. Rationale/Evidence: This metric speaks to the efficacy of the innovative project in reaching its targeted population.

I-18.2. Metric: Number of telemedicine/telehealth visits

a. Total number of visits for each type of telemedicine/telehealth service provided for reporting period

b. Data Source: Registry, EHR, claims or other Performing Provider source

c. Rationale/Evidence: This measures the increased volume of visits and is a method to assess the ability for the Performing Provider to increase capacity to provide care.

I-18.3. Metric: Improved access to health care services for residents of communities that did not have such services locally before the program. Demonstrate improvement over prior reporting period.

a. Total number of unique patients encountered for the reporting period.

b. Data Source: Registry, EHR, claims or other Performing Provider source

c. Rationale/Evidence: This measures the increased volume of visits and is a method to assess the ability for the Performing Provider to increase capacity to provide care.

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]

b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached

- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

1.8 Increase, Expand, and Enhance Oral Health Services

Project Goal:
Dental health is a key component of overall health. Oral disease can lead to poor nutrition; serious systemic illnesses and conditions such as poor birth outcomes, diabetes, and cardiovascular disease; and a diminished quality of life and life expectancy.[36] Inadequate access to oral health services compounds other health issues. It can result in untreated dental disease that not only affects the mouth, but can also have physical, mental, economic, and social consequences.[37] Fortunately, many of the adverse effects associated with poor oral health can be prevented with quality regular dental care, both at home and professionally. Increasing, expanding, and enhancing oral health services will improve health outcomes.

Barriers to Oral Health Care:

- Distribution of dental providers/lack of dental providers in underserved areas
- Inconvenient hours and location of dental clinic/services
- Transportation issues
- Low oral health literacy within the community
- Cultural and language competency of dental providers
- Cost of services/health insurance coverage
- Providers' limited experience treating special groups (medically compromised, elderly, special needs, pregnant women, young children)

Specific Project Goals:

- Close gaps/disparities in access to dental care services
- Enhance the quality of dental care
- Increase and enhance the dental workforce
- Redistribute and retain the dental workforce to/in underserved areas

Project Options:
Increase dental provider training, education, recruitment and/or retention, as well as expand workforce capacity through one of the following project options:

1.8.1 The development of academic linkages with the three Texas dental schools, to establish a multi-week externship program for fourth year dental students to provide exposure and experience in providing dental services within a rural setting during their professional academic preparation.

1.8.2 The establishment of a clinical rotation, continuing education within various community settings for dental residents to increase their exposure and experience providing dental services to special populations such as the elderly, pregnant women, young children, medically compromised, and/or special needs patients.

1.8.3 The establishment of a loan repayment program or scholarships for advanced training/education in a dental specialty with written commitments to practice in

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[36] http://www.perio.org/consumer/media/releases.htm#pregnancy
[37] Building Better Oral Health: A Dental Home for All Texans. A Report Commissioned by the Texas Dental Association. Fall 2008

underserved markets after graduation for fourth year dental students, new dental and dental hygiene graduates, and dental residents.

Increase interdisciplinary training and education opportunities for dentists and other health care providers to promote an interdisciplinary team approach to addressing oral health through one of the following project options:

1.8.4 Grand rounds, in-service trainings, and other continuing education events that integrate information on oral health issues and implications as related to chronic diseases, such as diabetes and cardiovascular disease, and the importance of good oral health during pregnancy and perinatal period.

1.8.5 Establishing a referral system/network that provides medically complex patients with coordinated care between dental and medical providers such as cardiologists, pediatricians, OB/GYNs, endocrinologists, oncologists, etc.

Increase and expand services by increasing clinics, clinic hours, using satellite mobile clinics with an affiliated fixed-site dental clinic location, school-based/school-linked health centers or other approaches to increase oral health services to underserved populations through one of the following project options:

1.8.6 The expansion of existing dental clinics, the establishment of additional dental clinics, or the expansion of dental clinic hours.

1.8.7 The expansion or establishment of satellite mobile dental clinics with an affiliated fixed-site dental clinic location.

1.8.8 The development of a tele-dentistry infrastructure including Medicaid reimbursement to expand access to dental specialty consultation services in rural and other limited access areas.

1.8.9 The implementation or expansion of school-based sealant and/or fluoride varnish programs that provide sealant placement and/or fluoride varnish applications to otherwise unserved school-aged children by enhancing dental workforce capacity through collaborations and partnerships with dental and dental hygiene schools, local health departments (LHDs), federally qualified health centers (FQHCs), and/or local dental providers.

1.8.10 The addition or establishment of school-based health centers that provide dental services for otherwise unserved children by enhancing dental workforce capacity through collaborations and partnerships with dental and dental hygiene schools, LDHs, FQHCs, and/or local dental providers.

1.8.11 The implementation of dental services for individuals in long-term care facilities, intermediate care facilities, and nursing homes, and for the elderly, and/or those with special needs by enhancing dental workforce capacity through collaborations and partnerships with dental and dental hygiene schools, LHDs, FQHCs, and/or local dental providers.

1.8.12 "Other" project option: Implement other evidence-based project to enhance oral health services in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project.

Note 1: All of the project options in project area 1.8 should include a component to conduct quality improvement for the project using methods such as rapid cycle improvement. Activities

may include, but are not limited to, identifying project impacts, "lessons learned," opportunities to scale all or part of the project to a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations.

Note 2: The following project components to implement or enhance efforts to improve quality of care and quality assurance in the delivery of dental care may be included as a part of the above project options:

- Integrating oral health information with electronic medical record.
- Establishing dental care coordination collaboratives where dental case studies are reviewed by dental and medical healthcare providers in an effort to identify best practices and to evaluate health outcomes as a result of the dental interventions and services provided.

Process Milestones:

P-1. Milestone: Enhance and expand dental care provider training, (must include at least one of the following metrics):

P-1.1. Metric: Establish/increase externship training opportunities for fourth year dental students to provide exposure and experience to providing dental services within a rural environment during their professional academic preparation

a. The number of externship opportunities available to fourth year dental students in a rural setting

b. Data Source: Externship opportunity descriptions

c. Rationale/Evidence: Externship opportunities for fourth year dental students will allow them to be exposed to underserved populations and areas of the state to consider as areas to serve/establish dental practices in after graduation.

P-1.2. Metric: Establish/increase rotations, continuing education, in-service trainings, lunch and learn presentations for dental residents and private practice dentists to enhance their exposure and experience providing dental services to special populations such as elderly, pregnant women, young children, medically compromised, and/or special needs patients.

a. Number of rotations, continuing education, in-service trainings, and lunch and learn presentations given to dental residents

b. Data Source: Training and presentation announcements

c. Rationale/Evidence: Increasing specialized training will allow dental providers to be more comfortable with treating special populations.

P-2. Milestone: Increase recruitment or retention program for dental care providers in underserved markets

P-2.1. Metric: Establish and market available loan repayment programs to fourth year dental students, dental residents, and dental hygienists

a. Documentation of loan repayment program

b. Data Source: Program materials

c. Rationale/Evidence: These programs can help to attract dentist and dental hygienists to practice in underserved markets.

P-2.2. Metric: Establish or increase scholarships for advanced training/education in a dental specialty with written commitments to practice in underserved markets after graduation

a. Documentation of scholarships
b. Data Source: Program materials
c. Rationale/Evidence: These programs will help to attract dentists and dental hygienist to practice in underserved areas, while pursuing additional specialized training.

P-3. Milestone: Increase interdisciplinary training and education opportunities for dental and other health care providers to promote an interdisciplinary team approach to addressing oral health

P-3.1. Metric: Increase grand rounds, in-service trainings, and continuing education that focus on oral health issues and implications as related to chronic diseases, such as diabetes and cardiovascular disease, and pregnancy.

a. Number of grand rounds and number of participants at in-service trainings, continuing education
b. Data Source: Roster/attendance sheets for grand rounds and trainings, CE certificates
c. Rationale/Evidence: Training programs for dental care should reflect impact on other health conditions and coordination with health homes in coordinated health care delivery models.

P-4. Milestone: Establish additional/expand existing/relocate dental care clinics or space

P-4.1. Metric: Number of additional clinics, expanded space, or existing available space used to capacity

a. Documentation of expansion or efficient use of existing space
b. Data Source: New dental care schedule or other document, completed exams, treatment plans
c. Rationale/Evidence: Additional, expanded or relocated dental clinics will allow for more convenient access of dental services, help address transportation issues, and increase dental resources

P-4.2. Metric: Number of school-based health centers with dental services

a. Documentation of establishment or expansion of school-based health center with dental services provided. Documentation should include descriptions of all services provided as well as program management activities. Examples could include:
   - Classroom dental screening;
   - A mobile sealant and hygiene program;
   - Referral and linkage with appropriate dental provider;
   - Parent education and empowerment of families;
   - Follow-up of findings from screenings;
   - Referral of severe-needs children to appropriate specialists;
   - Incentives for initial dental visit;
   - Needs assessment and data collection; and
   - Evaluation and accountability.

b. Data Source: Provider records

c. Rationale/Evidence: School-based health programs decrease oral health disparities that affect children and adolescents from low-income families by increasing access to dental care.[38]

P-5. Milestone: Expand the hours of a dental care clinic or office, including both evening and/or weekend hours

P-5.1. Metric: Increased number of hours at dental care clinic or office over baseline, number of patients served during extended hours

a. Documentation of increased hours and patients served

b. Data Source: Clinic or office hour documentation, patient records, patient schedule

c. Rationale/Evidence: Expanded hours can not only allow for more patients to be seen, but also provides more choice for patients.

P-6. Milestone: Implement/expand alternative dental care delivery systems to underserved populations

P-6.1. Metric: Implement/expand a mobile dental clinic program with an affiliated fixed-site dental clinic location

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38 From the American Academy of Pediatrics: Policy Statement: School-Based Health Centers and Pediatric Practice. Pediatrics Vol. 129 No. 2 February 1, 2012 pp. 387 -393

a. Documentation of expansion. Documentation should include descriptions of all services provided as well as program management activities.
b. Data Source: Dental records documenting exams, treatment, consultations, and referrals
c. Rationale/Evidence: Many RHPs and providers cover very large counties, including hundreds of miles. In some areas, it may take patients hours to drive to existing dental care sites. Mobile clinics will increase access to dental care by ameliorating transportation and inconvenient location of dental clinic issues. In addition, the affiliated fixed-site location will be able to provide follow-up care as needed.

P-6.2. Metric: Develop tele-dentistry infrastructure
a. Number of exams and/or consultations provided by dentists through tele-dentistry, number of patients served by tele-dentistry
b. Data Source: Dental exams and/or consultations
c. Rationale/Evidence: Tele-dentistry has the potential to reduce costs and facilitate access to oral health care in rural and underserved areas.

P-6.3. Metric: Implement or expand school-based sealant program
a. Number of schools participating in school-based sealant program
b. Data Source: MOUs, contracts with sealant partners
c. Rationale/Evidence: Identified by the CDC as a preventive measure that has strong evidence demonstrating effectiveness in the prevention of dental caries and allow for low-income high risk children to receive sealants that otherwise may not have the opportunity to receive them.

P-6.4. Metric: Implement program to increase dental services to improve maternal and early childhood oral health
a. Documentation of implementation. Documentation should include descriptions of all services provided as well as program management activities
b. Data Source: Referrals, other documentation
c. Rationale/Evidence: During pregnancy, women are prone to physiological changes that adversely affect their oral health. In addition, it is a critical time to educate pregnant women on caries prevention since they can transmit caries causing bacteria to their child.[39]

P-6.5. Metric: Implement program to increase dental services to individuals in long-term care facilities, intermediate care facilities, nursing homes, the elderly, and/or individuals with special needs.

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[39] Oral Health Care During Pregnancy and Early Childhood: A Summary of Practice Guidelines. 2008. National Maternal and Child Oral Health Resource Center. Georgetown University.

a. Documentation of implementation. Documentation should include descriptions of all services provided as well as program management activities.
b. Data Source: Referrals, contract with facility and partners providing dental services, documentation of visitation to facility, other documents
c. Rationale/Evidence: Residents in these facilities may not have the physical or cognitive ability to take care of their teeth or access dental care in a traditional setting and are at high risk for oral diseases that can impact their overall health.

P-6.6. Metric: Increase the number of memoranda of understanding (MOUs)/collaborative agreements (CAs) with dental hygiene programs to offer available hygiene services to underserved populations
a. Documentation of the establishment of MOUs/CAs with dental hygiene programs
b. Data Source: MOUs/CAs documents
c. Rationale/Evidence: dental hygiene programs have the facilities and the need to offer hygiene students the education experience associated with treating patients at a reduce cost to the patient. All dental hygiene programs have an associated dentist who can professionally evaluate the dental needs of the patients and make referrals to external resources to address the needs.

P-7. Milestone: Enhance efforts to improve quality of care and quality assurance in the delivery of dental care
P-7.1. Metric: Integrate oral health information into electronic health records
a. Documentation of oral health information section included in electronic health records
b. Data Source: patient electronic health records
c. Rationale/Evidence: Incorporation of dental records within electronic health records allows the facilitation of coordination of care between different health care providers, including dental care providers, leading to better overall health management of the patient.

P-7.2. Metric: Increase collaboratives where dental case studies are reviewed by dental and medical providers
a. Number of medically complex dental cases reviewed by both dental and medical providers
b. Data Source: dental and medical consultation and referral forms, meeting minutes, documentation of phone and/or email consultations
c. Rationale/Evidence: Collaboration between dental and medical healthcare providers allows identification of best practices and evaluation of health outcomes as a result of the dental interventions and services provided leading to better overall health management of the patient.

P-8. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around

shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-8.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-8.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.

a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-9. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.

P-9.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.

a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals

b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-10. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.

P-10.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.

a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-10.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.

a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]

P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]

c. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]

d. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones:

I-11. Milestone: Increase dental care training:

I-11.1. Metric: Increase the number of fourth year dental school students that have participated in externships that provide experience in a rural setting

a. Number of fourth year dental students participating in the externship opportunities, the number of externship opportunities

b. Data Source: Participation roster, externship contracts with dental schools

c. Rationale/Evidence: Externship opportunities for fourth year dental students will allow them to be exposed to underserved populations and areas of the state to consider as areas to practice in after graduation.

I-11.2. Metric: Increase the number of dental residents participating in the externship opportunities, number of rotations, continuing education, in-service training, and lunch and learn presentations.

a. Number of dental residents participating in externship opportunities, number of rotations, continuing education, in-service training, and lunch and learn presentations.

b. Data Source: Roster/attendance sheets for training and presentations, CE certificates

c. Rationale/Evidence: Increasing specialized training will allow dental specialty providers to be more comfortable with treating special populations.

I-11.3. Metric: Increase the number or percent of healthcare providers that have participated in additional training related to an interdisciplinary approach to providing oral health care including but not limited to: physicians (pediatricians, family practitioners, endocrinologists, cardiologists, etc.), physician assistants, advanced practice nurses, registered nurses, social workers, mental health professionals, and pharmacists.

a. Number/percent of healthcare providers that have participated in additional training related to an interdisciplinary approach to providing oral health care over the number of providers invited to participate

b. Data Sources: Enrollment/attendance at training

c. Rationale/Evidence: Since it is important to promote interdisciplinary healthcare with coordination among medical and dental providers to improve health outcomes and lower cost, the metric will measure increased interdisciplinary training.

I-11.4. Metric: Percentage of dentists incorporating special population patients into their practices following special population continuing education, in-service trainings, lunch and learn presentations.

a. Numerator: Total number of dentists who attended special population training and incorporated special population patients into their practices

b. Denominator: Total number of dentists who attended special population training

c. Data Source: Post-training survey

d. Rational/Evidence: Through additional training, dentists will enhance their skills and comfort level in treating special populations and will expand their patient base to include special population patients.

I-12. Milestone: Increase the number of patients treated by fourth year dental students and dental residents during special population externships and rotations.

I-12.1. Metric: Increase number of patients treated by fourth year dental students during externship training opportunities

a. Numerator: Total number of special population patients treated by fourth year dental students during externship opportunities (with appropriate faculty oversight)
b. Denominator: Total number of special population patients treated during externship opportunities (by site staff only)
c. Data Source: Billing and treatment records
d. Rationale/Evidence: The externship training opportunities should expand the capacity of the site to provide dental services.

I-13. Milestone: Increase access to dental care in rural and underserved areas of the state

I-13.1. Metric: Increased number of dental care professionals serving rural and unserved populations

a. Numerator: Provider:patient ratio after intervention
b. Denominator: Original provider:patient ratio
c. Data Source: Survey of local rural dental resources
d. Rational/Evidence: Through financial incentives, e.g. loan repayment, scholarship with written service commitments, access to dental services in rural areas would be improved.
e.

I-13.2. Metric: Additional rural areas with local dental access (Local dental access is defined as a dental care facility within 75 miles)

a. Numerator: Number of additional rural areas with local dental access
b. Denominator: Number of original rural areas with local dental access
c. Data Source: Survey of local rural dental resources
d. Rational/Evidence: Through financial incentives, e.g. loan repayment, scholarship with written service commitments, access to dental services in rural areas would be improved.

I-14. Milestone: Increase number of special population members that access dental services

I-14.1. Metric: Increasing the number of children, special needs patients, pregnant women, and/or the elderly accessing dental services

a. Number of children, special needs patients, pregnant women, and/or the elderly that have seen by a dental provider within the past 12 months

b. Data Source: Billing, consent forms, other documentation of dental services

c. Rationale/Evidence: Measuring increase in special high risk populations accessing dental services reflects the goals of addressing disparities in access to dental care.

I-14.2. Metric: Increasing the number of children receiving dental sealants

a. Number of school aged children with at least one dental sealant on their primary or permanent molars

b. Data Source: Billing, other documentation of preventive services

c. Rationale/Evidence: Children with dental sealants are less likely to experience dental decay.

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]

e. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]

f. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

1.9 Expand Specialty Care Capacity

Project Goal:
To increase the capacity to provide specialty care services and the availability of targeted specialty providers to better accommodate the high demand for specialty care services so that patients have increased access to specialty services. With regard to specialty areas of greatest need, the recent report of the Committee on Physician Distribution and Health Care Access cites psychiatry, general/preventive medicine, and child/adolescent psychiatry where the ratios per 100,000 population are 56.7%, 60.2%, and 67% of the US ratios, respectively. Federal funding (Medicare Direct Graduate Medical Education or DGME) for residency training is capped at 1996 levels for the direct support of graduate medical education. The cap only supports a third of the costs of 4,056 of the 4,598 actual positions in Texas, leaving the residency programs to cover the cost of two-thirds of the 4,056 positions and the full cost of 542 positions. Texas is currently over its Medicare cap by 13%.

Residency programs require 3 to 8 years of training, depending on the specialty. Medicare funding only covers years 1 through 3. In 2011, Texas had more than 550 residency programs, offering a total of 6,788 positions. Only 22% (1,494) of theses were first-year residency positions. According to the Coordinating Board, conservative estimates indicate that the cost to educate a resident physician for one year is $150,000.

Hence, a great need for extended residency programs in Texas and increase in the number of specialists.

Project Options:

1.9.1 Expand high impact specialty care capacity in most impacted medical specialties
Required core project components:
- a) Identify high impact/most impacted specialty services and gaps in care and coordination
- b) Increase the number of residents/trainees choosing targeted shortage specialties
- c) Design workforce enhancement initiatives to support access to specialty providers in underserved markets and areas (recruitment and retention)
- d) Conduct quality improvement for project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, identifying “lessons learned,” opportunities to scale all or part of the project to a broader patient population, and identifying key challenges associated with expansion of the project, including special considerations for safety-net populations.

1.9.2 Improve access to specialty care
Required core project components:
- a) Increase service availability with extended hours
- b) Increase number of specialty clinic locations
- c) Implement transparent, standardized referrals across the system.
- d) Conduct quality improvement for project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, identifying “lessons learned,” opportunities to scale all or part of the project to a broader patient population, and identifying key challenges associated with expansion of the project, including special considerations for safety-net populations.

1.9.3 "Other" project option: Implement other evidence-based project to expand specialty care capacity in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project. Milestone I-33 includes suggestions for improvement metrics to use with this innovative project option.

Rationale:
Inadequate access to specialty care has contributed to the limited scope and size of safety net health systems. To achieve success as an integrated network, gaps must be thoroughly assessed and addressed.

Process Milestones:

P-1. Milestone: Conduct specialty care gap assessment based on community need
- P-1.1. Metric: Documentation of gap assessment. Demonstrate improvement over prior reporting period (baseline for DY2).
  - a. Data Source: Needs Assessment
  - b. Rationale/Evidence: In order to identify gaps in high-demand specialty areas to best build up supply of specialists to meet demand for services and improve specialty care access

P-2. Milestone: Train care providers and staff on processes, guidelines and technology for referrals and consultations into selected medical specialties
- P-2.1. Metric: Training of staff and providers on referral guidelines, process and technology
  - a. Numerator: Number of staff and providers trained and documentation of training materials
  - b. Denominator: Total number of staff and providers working in specialty care and medical specialty clinics
  - c. Data Source: Log of specialty care personnel trained and Curriculum for training.
  - d. Rationale/Evidence: Training all staff and providers working in specialty care and in medical specialty clinics on referral guidelines, process, and technology creates the capacity to consistently and uniformly manage all referrals into medical specialties.

P-3. Milestone: Collect baseline data for wait times, backlog, and/or return appointments in specialties
- P-3.1. Metric: Establish baseline for performance indicators
  - a. Numerator: TBD by the Performing Provider
  - b. Denominator: TBD by the Performing Provider
  - c. Data Source: TBD by the Performing Provider
  - d. Rationale/Evidence: TBD by the Performing Provider

P-4. Milestone: Expand the ambulatory care medical specialties referral management department and related functions

P-4.1. Metric: Referral Management system utilization

a. Numerator: Number of unique referrals placed and tracked within the system during the reporting period. Denominator: Total number of referrals made to the specialty practice during the reporting period. Data Source: Reports generated by the Referral Management system, EHR and other administrative reports as needed.

b. Rationale/Evidence: A robust referral management department or clinic function can ensure that referrals are processed, reviewed and the patient's clinical issue addressed in a timely manner.

P-4.2. Metric: Policy development for and staff training for utilization of Referral Management system

a. Number of staff trained on Referral Management System

b. Data Source: Number of FTEs/Written description for process of managing referrals into medical specialties

c. Rationale/Evidence: A robust referral management department or clinic function can ensure that referrals are processed, reviewed and the patient's clinical issue addressed in a timely manner

P-5. Milestone: Provide reports on the number of days to process referrals and/or wait time from receipt of referral to actual referral appointment

P-5.1. Metric: Generate and provide reports on average referral process time and/or time to appointment (to providers, staff, and referring physicians.

a. Numerator: Sum, for all referrals, of the number of days between when request for referral is received from referring provider and the referral appointment during the reporting period.

b. Denominator: Total number of referrals during the reporting period.

c. Data source: EHR, Referral Management system, Administrative records. (Generated Reports on file).

d. Rationale/Evidence: This measure allows for assessment of Referral Management System efficacy.

P-6. Milestone: Develop and implement standardized referral and work-up guidelines

P-6.1. Metric: Referral and work-up guidelines

a. Documentation of referral and work-up guidelines

b. Data Source: Referral and work-up policies and procedures documents

c. Rationale/Evidence: More standardized and extensive pre-visit workups and referral guidelines will help to ensure that (1) patients must meet a common criteria to require a specialty care visit (versus receiving treatment in the primary care setting); (2) patients are triaged by urgency/need to increase specialty care access to those who need it most; and (3) the work required prior to the visit is performed before the visit is scheduled, eliminating the occurrence of multiple, initial specialist visits

P-7. Milestone: Complete a planning process/submit a plan to implement electronic referral technology (choose at least one metric):

P-7.1. Metric: Development of a staffing plan for referral system

a. Data Source: Referral plan, describes the number and types and staff and their respective roles needed to implement the system.

P-7.2. Metric: Development of an implementation plan for e-referral

a. Data Source: Referral plan, which describes the technical mechanisms needed to operate e-referral system.

P-8. Milestone: Develop the technical capabilities to facilitate electronic referral

P-8.1. Metric: Demonstrate technical mechanisms to be used to operate referral system are in place

a. Data Source: TBD by Performing Provider

b. Rationale/Evidence: In order to implement referral technology, other technical capabilities may need to be put in place first.

P-9. Milestone: Implement referral technology and processes that enable improved and more streamlined provider communications

a. Documentation of referrals technology

b. Data Source: Referral system

c. Rationale/Evidence: According to a University of California at San Francisco (UCSF) report[40], access to specialists is a common barrier for primary care clinicians trying to deliver high-quality, coordinated care, especially when their patients are poor or uninsured. To offer the standard of care required by the patient-centered medical home model, clinicians must be able to tap into a "medical neighborhood" of specialists and hospitals to obtain timely consultations, diagnostic services, and needed treatments. The way many healthcare networks still communicate is through telephone, paper and fax, which creates process inefficiencies, inaccurate data and slow information updates.

P-10. Milestone: Increase referral coordination resources for primary care and medical specialty clinics by developing and implementing bi-directional communication functionality in the system

P-10.1. Metric: Number of primary care and medical specialty clinics that manage referrals utilizing the bi-directional communication function of the referral management system.

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40 See A Safety-Net System Gains Efficiencies Through 'eReferrals' To Specialists report. Alice Hm Chen, Margot B. Kushel, Kevin Grumbach, and Hal F. Yee, Jr. http://content.healthaffairs.org/cgi/content/extract/29/5/969

a. Numerator: Number of referrals into medical specialty clinics over a defined period of time that are managed utilizing the bi-directional communication function of the referral management system.
b. Denominator: Total number of referrals into medical specialty clinics over a defined period of time.
c. Data Source: Patient or electronic medical record that shows the bi-directional communication between primary and medical specialty clinics.
d. Rationale/Evidence: Enhanced communication about a patient's condition between primary care and medical specialty providers creates the opportunity for better coordinated care and also for the patient to be treated in the most appropriate clinical setting.

P-11. Milestone: Launch/expand a specialty care clinic (e.g., pain management clinic)

P-11.1. Metric: Establish/expand specialty care clinics

a. Number of patients served by specialty care clinic
b. Data Source: Documentation of new/expanded specialty care clinic
c. Rationale/Evidence: Specialty care clinics improve access for targeted populations in areas where there are gaps in specialty care. Additionally, specialty care clinics allow for enhanced care coordination for those patients requiring intensive specialty services.

P-12. Milestone: Implement a specialty care access plan to include such components as statement of problem, background and methods, findings, implication of findings in short and long term, conclusions

P-12.1. Metric: Documentation of specialty care access plan

a. Data Source: Documentation of Provider plan
b. Rationale/Evidence: TBD by Performing Provider.

P-13. Milestone: Complete planning and installation of new specialty systems (e.g., imaging systems).

P-13.1. Metric: Documentation of planning and installation of new systems

a. Data Source: Documentation of specialty system implementation plan.
b. Rationale/Evidence: TBD by Performing Provider

P-14. Milestone: Expand targeted specialty care (TSC) training (must include at least one of the following metrics):

P-14.1. Metric: Expand the TSC residency, mid-level provider (physician assistants and nurse practitioners), and/or other specialized clinician/staff training programs and/or rotations

a. Documentation of applications and agreements to expand training programs
b. Data Source: Training program documentation
c. Rationale/Evidence: Increasing TSC training may help improve access to targeted specialty services.

P-14.2. Metric: Hire additional precepting TSC faculty members

a. Number of additional training faculty/staff members
b. Data Source: HR documents, faculty lists, or other documentation
c. Rationale/Evidence: More faculty is needed to expand training programs.

P-15. Milestone: Implement loan repayment program for TSC providers
P-15.1. Metric: Loan repayment program documentation
a. Number of TSC providers participating in loan repayment program.
b. Data Source: Program materials
c. Rationale/Evidence: Loan repayment programs can help to make TSC more attractive.

P-16. Milestone: Obtain approval from the Accreditation Council for Graduate Medical Education (ACGME) to increase the number of TSC residents
P-16.1. Metric: ACGME approval for residency position expansion
a. Number of newly approved TSC residency slots
b. Data Source: Documentation of ACGME approval for residency position expansion
c. Rationale/Evidence: Increasing TSC training may help improve access to targeted specialty services.

P-17. Milestone: Implement the re-design of medical specialty clinics in order to increase operational efficiency, shorten patient cycle time and increase provider productivity.
P-17.1. Metric: Number of medical specialty clinics that have completed clinic redesign.
a. Numerator: Average cycle time of appointments in medical specialty clinics that have undergone re-design.
b. Denominator: Overall average cycle time of appointments in all medical specialty clinics.
c. Data Source: Specialty clinic appointment tracking system.
d. Rationale/Evidence: Re-designing medical specialty clinics in order to shorten appointment cycle time and maximize provider productivity allows the most efficient utilization of specialty provider resources.

P-18. Milestone: Analyze occurrence of unnecessary specialty clinic follow-up appointments that are a result of sub-optimal care coordination.
P-18.1. Metric: Number of unnecessary specialty clinic follow-up appointments
a. Number of encounters where patient receives services and does not see the provider.
b. Data Source: Chart review with protocol for determining unnecessary follow up visits
c. Rationale/Evidence: Well coordinated visits, specifically where the patient receives follow-up services (lab, pharmacy, diagnostics, etc.) as well as having follow-up with provider.

P-19. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the

provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-19.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-19.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.

a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-20. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.

P-20.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.

a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals

b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-21. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.

P-21.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.

a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-21.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.
a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]
P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]
a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
b. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones:

I-22. Milestone: Increase the number of specialist providers, clinic hours and/or procedure hours available for the high impact/most impacted medical specialties

I-22.1. Metric: Increase number of specialist providers, clinic hours and/or procedure hours in targeted specialties

a. Numerator: Number of specialist providers in targeted specialties over baseline or change in the number of specialist providers in targeted specialties

b. Denominator: Number of monthly or annual referrals into targeted medical specialties clinic or number of specialist providers in targeted specialties at baseline

c. Data Source: HR documents or other documentation demonstrating employed/contracted specialists

d. Rationale/Evidence: Increased number of specialists to meet demand and referral demand for in-person visits and procedures will allow patients to receive more timely services.

I-23. Milestone: Increase specialty care clinic volume of visits and evidence of improved access for patients seeking services.

I-23.1. Metric: Documentation of increased number of visits. Demonstrate improvement over prior reporting period (baseline for DY2).

a. Total number of visits for reporting period

b. Data Source: Registry, EHR, claims or other Performing Provider source

c. Rationale/Evidence: This measures the increased volume of visits and is a method to assess the ability for the Performing Provider to increase capacity to provide care.

I-23.2. Metric: Documentation of increased number of unique patients, or size of patient panels. Demonstrate improvement over prior reporting period (baseline for DY2).

a. Total number of unique patients encountered in the clinic for reporting period.

b. Data Source: Registry, EHR, claims or other Performing Provider source

c. Rationale/Evidence: This measures the increased volume of visits and is a method to assess the ability for the Performing Provider to increase capacity to provide care.

I-24. Milestone: Implement specialty care access programs (e.g., referral technologies)

I-24.1. Metric: Number of primary care and medical specialty clinics with specialty care access programs

a. Numerator: Number of primary care and medical specialty clinics with specialty care access programs

b. Denominator: Total number of primary and medical specialty clinics

c. Data Source: Written workflows of referral management processes, documentation of specialty care access program, documentation of utilization of specialty care access program in patient's paper or electronic medical record.

d. Rationale/Evidence: An intentional and well-designed specialty care access program can increase the opportunity for patients to receive timely care in the most appropriate setting.

I-25. Milestone: Increase the number of referrals for the most impacted specialties that are reviewed and assigned into appropriate categories (i.e., urgent appointment, routine appointment, or e-consult)

I-25.1. Metric: Proportion of referrals appropriately categorized

a. Numerator: Number of referrals appropriately categorized

b. Denominator: Total number of referrals

c. Data Source: Referral management system, patient's paper or electronic medical record.

d. Rationale/Evidence: Reviewing and assigning referrals into categories by urgency as mutually agreed upon by primary and medical specialty providers enhances the likelihood that medical specialists are consistently seeing patients that most need their care in the shortest amount of time possible.

I-26. Milestone: Reduce the rate of inappropriate or rejected referrals / or increase the rate of appropriate or accepted referrals

I-26.1. Metric: Rate of Rejected/Accepted Primary Care Provider-Initiated Referrals to Specialty Care. This rate will be calculated on a quarterly basis and reported for most recent quarter.

a. Numerator: Number of referrals from primary care providers to specialists that were rejected/accepted by specialists

b. Denominator: Total number of referrals made by primary care providers to specialists

c. Data Source: eReferral or other referrals system

d. Rationale/Evidence: Currently, specialty providers have very little ability to provide feedback to primary care providers prior to an appointment being scheduled. Therefore immediately after implementation of referral system improvements, we expect a significant number of referrals will be "rejected." As primary care providers become more familiar with the guidelines and receive more pre-visit guidance from the specialist, this rejection rate will start to decrease.

I-27. Milestone: Patient satisfaction with specialty care services.

I-27.1. Metric: Patient satisfaction scores: Average reported patient satisfaction scores, specific ranges and items to be determined by assessment tool scores. Demonstrate improvement over prior reporting period.

a. Numerator: Sum of all survey scores,

b. Denominator: Number of surveys completed.

c. Data Source: CG-CAHPS[41] or other developed evidence based satisfaction assessment tool, available in formats and language to meet patient population.

d. Rationale: Patient satisfaction with specialty care services is largely related to utilization of specialty care services. Understanding strengths, needs and receiving patient feedback allows for providers and staff to better understand how to tailor care delivery to meet their patients' needs.

I-27.2. Metric: Percentage of patients receiving survey. Specifically, the percentage of patients that are provided the opportunity to respond to the survey. Demonstrate improvement over prior reporting period.

a. Numerator: number of surveys distributed during the reporting period

b. Denominator: total number of specialty care visits during the reporting period

c. Data Source: Performing provider documentation of survey distribution, EHR

d. Rationale: Patient satisfaction with specialty care services is largely related to utilization of specialty care services. Understanding strengths, needs and receiving patient feedback allows for providers and staff to better understand how to tailor care delivery to meet their patients' needs.

I-27.3. Metric: Survey response rate. Demonstrate improvement over prior reporting period (baseline for DY2).

a. Numerator: number of survey responses

b. Denominator: total number of surveys distributed.

c. Data Source: CAHPS or other developed evidence based satisfaction assessment tool; Performing provider documentation of survey distribution, EHR

d. Rationale: Patient satisfaction with specialty care services is largely related to utilization of specialty care services. Understanding strengths, needs and receiving patient feedback allows for providers and staff to better understand how to tailor care delivery to meet their patients' needs.

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41 http://www.ahrq.gov/cahps/clinician_group/

I-28. Milestone: Reduce cycle times for specialty report

I-28.1. Metric: Report dictation cycle time

a. Time (in hours) between end of specialist visit and report dictation and inclusion in patient medical record, or accessible by referring provider.

b. Data Source: EHR

I-28.2. Metric: Referring physician report review cycle time

a. Time (in hours) between availability of specialist report and review by referring provider.

b. Data Source: EHR

I-29. Milestone: Increase the number of referrals of targeted patients to the specialty care clinic

I-29.1. Metric: Targeted referral rate

a. Number of referrals of targeted patients

b. Data Source: Registry and/or paper documentation as designated by Performing Provider

c. Rationale/Evidence: Targeted patients are at high-risk of admissions and/or readmissions, and getting the patients to the specialty care clinics can help manage their conditions and therefore avoid unnecessary ED utilization, hospitalizations or readmissions.

I-30. Milestone: Reduce the number of specialty clinics with waiting times for next routine appointment

I-30.1. Metric: Next routine appointment of more than X calendar days and/or to no more than X of X specialty clinics or specialty practices

a. Time to next available appointment; number of clinics with time to next available appointment greater than X

b. Data Source: Performing Provider appointment scheduling system

c. Rationale/Evidence: This measure addresses the accessibility of specialty care clinics.

I-31. Milestone: Increase TSC training and/or rotations (must select one of the following metric):

I-31.1. Metric: Increase the number of TSC residents and/or trainees, as measured by percent change of class size over baseline. Trainees may include physicians, mid-level providers (physician assistants and nurse practitioners), and/or other specialized clinicians/staff.

a. Percent increase of TSC resident class size.

b. Data Source: Documented enrollment by class by year by TSC training program

c. Rationale/Evidence: As the goal is to increase the TSC workforce to better meet the need for TSC in the health care system by increasing training of the TSC workforce in Texas, the metric is a straightforward measurement of increased training.

I-31.2. Metric: Increase the number of TSC trainees rotating at the Performing Provider's facilities
- a. Number of TSC trainees in Performing Provider's facility
- b. Data Source: Student/trainee rotation schedule
- c. Rationale/Evidence: As the goal is to increase the TSC workforce to better meet the need for TSC in the health care system by increasing training of the TSC workforce in Texas, the metric is a straightforward measurement of increased training.

I-31.3. Metric: Increase the number or percent of culturally-competent trainees eligible for existing Texas residency programs.
- a. Number or percent of cultural competency program trainees that are eligible for residency programs.
- b. Data Source: Cultural competency program records
- c. Rationale/Evidence: Cultural competency training is integral to the success residency curriculums and should be promoted as best practice.

I-31.4. Metric: Increase the number of TSC care residents and/or trainees, as measured by percent change of class size over baseline or by absolute number
- a. Percent change of TSC care resident and/or trainees class size
- b. Data Source: Documented enrollment by class by year by TSC training program
- c. Rationale/Evidence: As the goal is to increase the TSC workforce to better meet the need for TSC in the health care system by increasing training of the TSC workforce in Texas, the metric is a straightforward measurement of increased training.

I-32. Milestone: Recruit/hire more trainees/graduates to TSC positions in the Performing Provider's facilities or practices

I-32.1. Metric: Percent change in number of graduates/trainees accepting positions in the Performing Provider's facilities or practices over baseline
- a. Number of TSC graduates accepting position in Performing Provider's facility.
- b. Data Source: Documentation, such as HR documents compared to class lists
- c. Rationale/Evidence: A measure of the success of the training program is how many graduates are choosing to practice in TSC at the Performing Provider's facilities.

I-33. Milestone: Increase specialty care capacity using innovative project option. The following metrics are suggested for use with an innovative project option to increase specialty care capacity but are not required.

I-33.1. Metric: Increase percentage of target population reached.

a. Numerator: Number of individuals of target population reached by the innovative project.

b. Denominator: Number of individuals in the target population.

c. Data Source: Documentation of target population reached, as designated in the project plan.

d. Rationale/Evidence: This metric speaks to the efficacy of the innovative project in reaching it targeted population.

I-33.2. Metric: Increased number of specialty care visits.

a. Total number of visits for reporting period

b. Data Source: Registry, EHR, claims or other Performing Provider source

c. Rationale/Evidence: This measures the increased volume of visits and is a method to assess the ability for the Performing Provider to increase capacity to provide care.

I-33.3. Metric: Documentation of increased number of unique patients, or size of patient panels. Demonstrate improvement over prior reporting period.

a. Total number of unique patients encountered in the clinic for reporting period.

b. Data Source: Registry, EHR, claims or other Performing Provider source

<u>Customizable Improvement Milestone I-X</u>: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]

b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

1.10 Enhance Performance Improvement and Reporting Capacity

Project Goal: To expand quality improvement capacity through people, processes and technology so that the resources are in place to conduct, report, drive and measure quality improvement.

The goal of this project is to implement process improvement methodologies to improve safety, quality, and efficiency. Providers may design customized initiatives based on various process improvement methodologies such as Lean, Six Sigma, Care Logistics, and Nurses Improving Care for Health system Elders (NICHE) among others.

The Lean methodology as applied to medicine evaluates the use of resources, measures the value to the patient, considers the use of resources in terms of their value to the patient, and eliminates those that are wasteful. Focus on Lean is especially valuable to safety net providers because of its emphasis on waste reduction. Denver Health a safety net hospital in Denver, Colorado has identified more than $124 million in cost savings that the health system has achieved due to Lean Rapid Improvement Events since implementing Lean in 2005[42]. Using methodologies such as Lean that are proven to eliminate waste and redundancies and optimize patient flow, providers may customize a project that will develop and implement a program of continuous improvement that will increase communication, integrate system workflows, provide actionable data to providers and patients, and identify and improve models of patient-centered care that address issues of safety, quality, and efficiency. Implementation frequently requires a new "operational mindset" using tools such as Lean to identify and progressively eliminate inefficiencies while at the same time linking human performance, process performance and system performance into transformational performance in the delivery system.[43] The process improvement, as a further example, may include elements such as identifying the value to the patient, managing the patient's journey, facilitating the smooth flow of patients and information, introducing "pull" in the patient's journey (e.g. advanced access), and/or continuously reducing waste by developing and amending processes awhile at the same time smoothing flow and enhancing quality and driving down cost.[44]

Rationale:
Performance improvement and reporting is a very large component of success of all of the project areas across the categories. The necessity for quality and safety improvement initiatives permeates health care.[2,3] Quality health care is defined as "the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge"[3] (p. 1161). According to the Institute of Medicine (IOM) report, To Err Is Human,[45] the majority of medical errors result from faulty systems and processes, not individuals.

Processes that are inefficient and variable, changing case mix of patients, health insurance, differences in provider education and experience, and numerous other factors contribute to the complexity of

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[42] http://denverhealth.org/LEANAcademy.aspx
[43] Oujiri J, Ferrara C. "The Phoenix Project – Integrating Effective Disease Management Into Primary Care Using Lean Six-Sigma Tools." *Duluth Clinic Presentation*. 2010.
[44] Bibby J. "Lean in Primary Care: The Basics – Sustaining Transformation." *Asian Hospital and Healthcare Management* (2011) 18.
[45] Hughes RG. Tools and Strategies for Quality Improvement and Patient Safety. In: Hughes RG, editor. Patient Safety and Quality: An Evidence-Based Handbook for Nurses. Rockville (MD): Agency for Healthcare Research and Quality (US); 2008 Apr. Chapter 44. Available from: http://www.ncbi.nlm.nih.gov/books/NBK2682/

health care. With this in mind, the IOM also asserted that today's health care industry functions at a lower level than it can and should, and it put forth the following six aims of health care: effective, safe, patient-centered, timely, efficient, and equitable.[3] The aims of effectiveness and safety are targeted through process-of-care measures, assessing whether providers of health care perform processes that have been demonstrated to achieve the desired aims and avoid those processes that are predisposed toward harm. The goals of measuring health care quality are to determine the effects of health care on desired outcomes and to assess the degree to which health care adheres to processes based on scientific evidence or agreed to by professional consensus and is consistent with patient preferences.

Because errors are caused by system or process failures, it is important to adopt various process-improvement techniques to identify inefficiencies, ineffective care, and preventable errors to then influence changes associated with systems. Each of these techniques involves assessing performance and using findings to inform change. This chapter will discuss strategies and tools for quality improvement—including failure modes and effects analysis, Plan-Do-Study-Act, Six Sigma, Lean, and root-cause analysis—that have been used to improve the quality and safety of health care.[46]

Whatever the acronym of the method (e.g., TQM, CQI) or tool used (e.g., FMEA or Six Sigma), the important component of quality improvement is a dynamic process that often employs more than one quality improvement tool. Quality improvement requires five essential elements for success: fostering and sustaining a culture of change and safety, developing and clarifying an understanding of the problem, involving key stakeholders, testing change strategies, and continuous monitoring of performance and reporting of findings to sustain the change.

Project Options:

1.10.1 Enhance improvement capacity within people

Required core project components

a) Provide training and education to clinical and administrative staff on process improvement strategies, methodologies, and culture.

b) Develop an employee suggestion system that allows for the identification of issues that impact the work environment, patient care and satisfaction, efficiency and other issues aligned with continuous process improvement.

1.10.2 Enhance improvement capacity through technology

Required core project components

a) Provide training and education to clinical and administrative staff on process improvement strategies, methodologies, and culture.

b) Develop an employee suggestion system that allows for the identification of issues that impact the work environment, patient care and satisfaction, efficiency and other issues aligned with continuous process improvement.

c) Design data collection systems to collect real-time data that is used to drive continuous quality improvement (possible examples include weekly run charts or monthly dashboards)

1.10.3 Enhance improvement capacity within systems

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[46] Hughes RG. Tools and Strategies for Quality Improvement and Patient Safety. In: Hughes RG, editor. Patient Safety and Quality: An Evidence-Based Handbook for Nurses. Rockville (MD): Agency for Healthcare Research and Quality (US); 2008 Apr. Chapter 44. Available from: http://www.ncbi.nlm.nih.gov/books/NBK2682/

Required core project components

a) Provide training and education to clinical and administrative staff on process improvement strategies, methodologies, and culture.

b) Develop an employee suggestion system that allows for the identification of issues that impact the work environment, patient care and satisfaction, efficiency and other issues aligned with continuous process improvement.

1.10.4 "Other" project option: Implement other evidence-based project to enhance performance improvement and reporting capacity in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project.

Note: All of the project options in project area1.10 should include a component to conduct quality improvement for the project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, "lessons learned," opportunities to scale all or part of the project to a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations.

Process Milestones:

P-1. Milestone: Establish a performance improvement office to collect, analyze, and manage real-time data and to monitor the improvement trajectory and improvement activities across the Performing Provider's delivery system

P-1.1. Metric: Documentation of the establishment of performance improvement office

a. Documentation of establishment of office

b. Data source: HR documents, office policies and procedures

c. Rationale/Evidence: Having an office responsible for performance improvement will increase organizational capacity to and demonstration organizational commitment to performance improvement activities ongoing.

P-1.2. Metric: Documentation that the performance improvement office is engaged in collecting, analyzing, and managing real-time data (examples could include weekly run charts or monthly dashboards).

a. Submission of performance improvement reports

b. Data Source: TBD by provider

c. Rationale/Evidence: Real time data collection and regular reporting to providers is critical to demonstrate the efficacy of improvement

P-1.3. Metric: Documentation of quality improvement activities implemented by the performance improvement office (examples could include number of Rapid Improvement Events (RIE) with documentation of the participants in the RIE, the value-stream map produced by the team, description of the new process developed based on the value-stream map, and the results after implementation of the new process)

a. Submission of performance improvement reports
b. Data Source: TBD by provider
c. Rationale/Evidence: Real time reporting of improvement activities and resulting improvement in patient care to providers is critical in building support and creating a culture of change within the organization.

P-2. Milestone: Establish a program for trained experts on process improvements to mentor and train other staff, including front-line staff, for safety and quality care improvement. All staff trained in this program should be required to lead an improvement project in their department within 6 months of completing their training.

P-2.1. Metric: Train the trainer program established
a. Number of staff trained through the train the trainer program
b. Data Source: HR, training program materials (including documentation of the number of hours of training required).
c. Rationale/Evidence: Ongoing training throughout the organization in quality care improvement will increase capacity for quality improvement activities on an ongoing basis.

P-2.2. Metric: Improvement projects led by staff trained through the train the trainer program
a. Number of improvement projects led by staff trained through the train the trainer program within 6 months of completion of their training.
b. Data Source: Documentation of improvement projects
c. Rationale/Evidence: Newly trained staff should immediately implement their new improvement skills and contribute to quality improvement across the organization. This will solidify their skills and drive the entire organization on a more rapid trajectory of improvement.

P-3. Milestone: Participate in statewide, regional, public hospital or national learning collaborative to drive targeted quality improvements. This should include collaboratives using clinical database(s) for standardized data sharing.

P-3.1. Metric: Documentation of collaborative membership
a. Submission of membership materials and description of activities related to provider participation.
b. Data Source: Collaborative membership materials
c. Rationale/Evidence: Participating in a collaborative has been shown to drive targeted and concerted quality improvement activities with the support of peers and the program.

P-4. Milestone: Participate in/present to quality/performance improvement conferences, webinars, learning sessions or other venues

P-4.1. Metric: Number of learning events attended and number of learning events at which a presentation was delivered summarizing the provider's improvement activities and results

a. Submission of all learning event materials and description of activities related to provider
b. Data Source: Learning events' agendas, abstracts or materials related to provider's presentation
c. Rationale/Evidence: It is also important to share the learnings of quality improvement efforts – what worked and what did not work.

P-5. Milestone: Enhance or expand the organizational infrastructure and resources to store, analyze and share the patient experience data and/or quality measures data, as well as utilize them for quality improvement

P-5.1. Metric: Increased collection of patient experience and/or quality measures data

a. Number of new quality measures and/or patient experience measures being collected
b. Data Source: Documentation of methodology for patient experience and or quality measures data collection and reporting.
c. Rationale/Evidence: It is important to accurately collect patient experience data and have the data in a format that can be analyzed in a way to draw meaningful and actionable conclusions.

P-6. Milestone: Hire/train quality improvement staff in well-proven quality and efficiency improvement principles, tools and processes, such as rapid cycle improvement and/or data and analytics staff for reporting purposes (e.g., to measure improvement and trends)

P-6.1. Metric: Increase Number of staff trained in quality and efficiency improvement principles

a. Numerator: Number of staff trained
b. Denominator: Total number of staff
c. Data Source: HR, training programs
d. Rationale/Evidence: It is essential to have the resources in place and brainpower to drive performance improvement work.

P-6.2 Metric: Increase number of data analysts hired who are responsible for collecting and analyzing real-time data to measure improvement and trends and to drive rapid-cycle performance improvement.

a. Number of data analysts hired
b. Data Source: HR, job descriptions
c. Rationale/Evidence: It is essential to have individuals with the right technical expertise to collect and analyze the real-time data that is critical to driving performance improvement work.

P-7. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-7.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-7.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.

a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-8. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.

P-8.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.

a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals

b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-9. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.

P-9.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.

a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-9.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.
a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]
P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]
a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
b. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones:

I-7. Milestone: Implement quality improvement data systems, collection, and reporting capabilities

I-7.1. Metric: Increase the number of reports generated through these quality improvement data systems

a. Numerator: Number of reports generated

b. Data Source: Quality improvement data systems

c. Rationale/Evidence: It is important to accurately collect data on quality outcomes and patient experience as well as present the data in a format that can be analyzed in a way to draw meaningful and actionable conclusions. These reports should be generated monthly, if not more frequently, to measure the impact of improvement activities on the improvement goals/targets.

I-7.2. Metric: Demonstrate how quality reports are used to drive rapid-cycle performance improvement.

Number of performance activities that were designed and implemented based on the data in the reports.

a. Data Source: Documentation from quality improvement office

b. Rationale/Evidence: It is important to use the data on quality outcomes and patient experience to design new processes and measure the results once these new processes are implemented in order to continuously improve the interventions over time.

I-8. Milestone: Create a quality dashboard or scoreboard to be shared with organizational leadership and at all levels of the organization on a regular basis that includes outcome measures and patient satisfaction measures

I-8.1. Metric: Submission of quality dashboard or scorecard

a. Data Source: Quality improvement data systems

b. Rationale/Evidence: It is important to accurately collect patient experience and quality outcome data and have the data in a format that can be analyzed in a way to draw meaningful and actionable conclusions. Examples of dashboards that may be used include: (1) Clinical Dashboard: Nursing Unit Census, Current Patients for Emergency Room, Average Patient Length of Stay; (2) Hospital Dashboard: Admissions, Emergency Room Wait Times, Quarterly Income, Departmental Spending; (3) Patient Dashboard: Physician Dashboard: Number of Patients, Patient Satisfaction, Number of New Patients; or (4) Physician Dashboard: Number of Patients, Patient Satisfaction, Number of New Patients.

I-8.2. Metric: Demonstration of how quality dashboard is used to drive rapid-cycle performance improvement

a. Number of performance activities that used data from the dashboard or scoreboards to inform design and implementation of a process improvement.

b. Data Source: Documentation from quality improvement office

c. Rationale/Evidence: It is important to use the data on quality outcomes and patient experience to design new processes and measure the

results once these new processes are implemented in order to continuously improve the interventions over time.

I-9. Milestone: Demonstrated improvement in X number of selected quality measures

I-9.1. Metric: Improvement in selected quality measures

a. Numerator: Number of quality measures showing improvement

b. Denominator: Total number of quality measures captured

c. Data source: Quality improvement data systems

d. Rationale/Evidence: It is important to accurately collect real-time data on quality outcomes and patient experience and have the data in a format that can be analyzed in a way to draw meaningful and actionable conclusions.

I-10. Milestone: Enhance performance improvement and reporting capacity. The following metrics are suggested for use with an innovative project option to enhance performance improvement and reporting capacity but are not required.

I-10.1. Metric: Increase the number of reports generated through these quality improvement data systems

a. Number of reports generated

b. Data Source: Quality improvement data systems

c. Rationale/Evidence: It is important to accurately collect patient experience and quality outcome data and have the data in a format that can be analyzed in a way to draw meaningful and actionable conclusions.

I-10.2. Metric: Demonstrate how quality reports are used to drive rapid-cycle performance improvement.

a. Number of performance activities that were designed and implemented based on the data in the reports.

b. Data Source: Documentation from quality improvement office

c. Rationale/Evidence: It is important to use the data on quality outcomes and patient experience to design new processes and measure the results once these new processes are implemented in order to continuously improve the interventions over time.

<u>Customizable Improvement Milestone I-X</u>: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]

b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

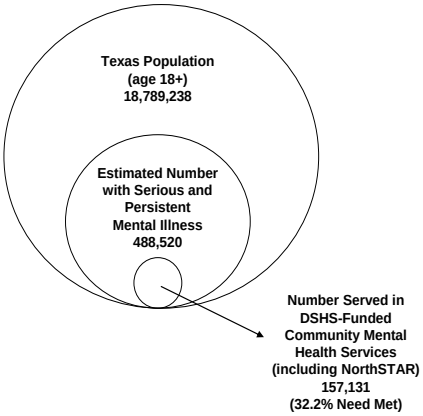
- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

CATEGORY 1: BEHAVIORAL HEALTH INFRASTRUCTURE PROJECTS

GOAL: Improve the infrastructure for delivery of mental health and substance use disorder (AKA behavioral health) services.

The goals of infrastructure-related mental health and substance use disorder (behavioral health) projects are to improve the access to appropriate behavioral health interventions and specialists throughout Texas. This is an especially critical need in Texas for several reasons:

- State funding for behavioral health indigent care is limited. Texas ranks 50th in per capita funding for state mental health authority (DSHS) services and supports for people with serious and persistent mental illness and substance use disorders. Medically indigent individuals who are not eligible for Medicaid have no guarantee of access to needed services and may face extended waiting periods.
- Texas ranks highest among states in the number of uninsured individuals per capita. One in four Texans lack health insurance. People with behavioral health disorders are disproportionately affected. For example, 60 percent of seriously mentally ill adults served in the public mental health system are uninsured.[47]



- The supply of behavioral health care providers is inadequate in most of the State. In April of 2011, 195 (77%) of Texas' 254 counties held federal designations as whole county Health Provider Shortage Areas (HPSAs). This is an increase from the 183 counties designated in 2002.[48]

Projects / project elements under this heading are designed to increase the supply of behavioral health professionals practicing in the State, extend the capacity of behavioral health providers to offer expertise to other health care providers, such as primary care physicians and enhance the capacity of behavioral health and other providers to effectively serve patients with behavioral health conditions. Examples of such projects could include training and residency programs for behavioral health providers, programs which expand access to certified peer support services, telehealth consultation programs in which behavioral health providers offer timely expertise to primary care providers and extended clinic hours / mobile clinics.

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[47] DSHS Decision Support, 2012

[48] "Highlights: The Supply of Mental Health Professionals in Texas -2010", Texas Department of State Health Services Center for Health Statistics, E-Publication No. E25-12347. Accessed at: http://www.dshs.state.tx.us/chs/hprc/publicat.shtm

1.11 Implement technology-assisted services (telehealth, telemonitoring, telementoring, or telemedicine) to support, coordinate, or deliver behavioral health services

Project Goal:
Texas faces several access barriers that make the deployment of workable integrated health care models a challenge. Specifically, Texas is composed of 254 counties, the majority of which can be classified as either "rural" or "frontier". The availability of health care providers is severely limited in many of these sparsely populated areas. While these shortages make access to physical healthcare difficult for those who reside in these rural areas, the impact on individuals with behavioral health needs is even more severe. For example, in 2009, 171 Texas counties did not have a psychiatrist, 102 counties did not have a psychologist, 40 counties did not have a social worker and 48 counties did not have a licensed professional counselor.

There are 195 Texas counties (77% of all Texas counties) that have been designated by the Health Resources and Services Administration (HRSA) as Health Professional Shortage Areas (HPSAs) in relation to behavioral health. Furthermore, certain specialties (such as Child Psychiatrists) are virtually non-existent in the vast majority of the rural and frontier areas of the state.

Additionally, the size of the state makes travel from these underserved areas to larger urban settings difficult. For individuals who lack reliable transportation or have disabilities that restrict driving, the challenge of accessing health care may be virtually insurmountable.

Furthermore, there are many non-rural areas of the state where the availability of health care professionals is greatly limited. For example, in Bexar country, which has one of the largest urban populations in Texas, there are 123 areas within the county that have been designated as HPSAs by HRSA. Similar shortages can be found in most Texas urban counties.

Modern communications technology holds the greatest promise of bridging the gap between medical need in underserved areas and the provision of needed services. The developments in internet-based communications that began with voice messaging have been extended to video in the form of widely available video compression technologies that allow for high quality, real time, face-to-face communications and consultations over relatively inexpensive telecommunications equipment. With this new technology, in any area of the state where high speed broadband internet access is available, access to many forms of health care can become a reality. To leverage the promise of this new technology, Texas would like to expand the use of telemedicine, telehealth, and telemonitoring to thereby increase access to, and coordination of, physical and behavioral healthcare.

Televideo technology can be used to provide a variety of what have been referred to as "Telemental Health" services. These services may include mental health assessments, treatment, education, monitoring, mentoring and collaboration. These services may be used in a variety of locations (schools, nursing facilities, and even in homes) in any geographical location where traditional service providers are in short supply. Providers can include psychiatrists, nurse practitioners, physician assistants, social workers, pharmacists, psychologists, counselors, PCPs, and nurses. For example, telemental health could be used to provide follow-up outpatient consults with a psychiatrist or other mental health professional within 7 or 30 days of discharge from the inpatient hospital. These virtual follow-up visits could focus on monitoring for remission of symptoms, adjusting psychotropic medications, and developing a treatment plan to prevent readmissions in partnership with the primary care provider. Telemental services could also be used to provide medication management services to community

mental health patients with severe mental illness to ensure appropriate medication treatment and compliance, preventing psychiatric crises which would require psychiatric hospitalization.

The use of telemedicine could provide direct video access to a psychiatrist while the use of telementoring would provide a General Practitioner with access to consultation with psychiatrists with expertise in managing complex medication regimens. Additionally, telehealth could provide direct access to Cognitive Behavioral Therapy and other evidence-based counseling protocols that have proven to be effective in addressing major depression, trauma, and even schizophrenia in some populations.

Telecommunications technology can also be used to foster peer support and mentoring efforts among providers and among consumers (e.g., support groups, peer mentors).

For example, The University of New Mexico has successfully utilized a telementoring program (Project ECHO) to successfully train and provide ongoing support to Primary Care Physicians (PCPs) who provide care to persons with addiction. This initiative provides weekly didactic sessions as well as case presentations to address challenging clinical cases and get feedback from specialists based at the University and from colleagues around the state.[49]

Project Options:

1.11.1 Procure and build the infrastructure needed to pilot or bring to scale a successful pilot of the selected forms of service in underserved areas of the state (this must be combined with one of the two interventions below).
Required core project components:
- a) Identify existing infrastructure for high speed broadband communications technology (such as T-3 lines, T-1 lines) in rural, frontier, and other underserved areas of the state;
- b) Assess the local availability of and need for video communications equipment in areas of the state that already have (or will have) access to high speed broadband technology.
- c) Assess applicable models for deployment of telemedicine, telehealth, and telemonitoring equipment.

1.11.2 Implement technology-assisted behavioral health services from psychologists, psychiatrists, substance abuse counselors, peers and other qualified providers).
Required core project components:
- a) Develop or adapt administrative and clinical protocols that will serve as a manual of technology-assisted operations.
- b) Determine if a pilot of the telehealth, telemonitoring, telementoring, or telemedicine operations is needed. Engage in rapid cycle improvement to evaluate the processes and procedures and make any necessary modifications.
- c) Identify and train qualified behavioral health providers and peers that will connect to provide telemedicine, telehealth, telementoring or

[49] Project ECHO: a model for expanding access to addiction treatment in a rural state
Miriam Komaromy, MD, 2010.

telemonitoring to primary care providers, specialty health providers (e.g., cardiologists, endocrinologists, etc.), peers or behavioral health providers. Connections could be provider to provider, provider to patient, or peer to peer.

d) Identify modifiers needed to track encounters performed via telehealth technology

e) Develop and implement data collection and reporting standards for electronically delivered services

f) Review the intervention(s) impact on access to specialty care and identify "lessons learned," opportunities to scale all or part of the intervention(s) to a broader patient population, and identify key challenges associated with expansion of the intervention(s), including special considerations for safety-net populations.

g) Scale up the program, if needed, to serve a larger patient population, consolidating the lessons learned from the pilot into a fully-functional telehealth, telemonitoring, telementoring, or telemedicine program. Continue to engage in rapid cycle improvement to guide continuous quality improvement of the administrative and clinical processes and procedures as well as actual operations.

h) Assess impact on patient experience outcomes (e.g. preventable inpatient readmissions)

1.11.3 "Other" project option: Implement other evidence-based project to implement technology-assisted services to support, coordinate, or deliver behavioral health services in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project.

Note: All of the project options in project area 1.11 should include a component to conduct quality improvement for the project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, "lessons learned," opportunities to scale all or part of the project to a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations.

Process Milestones:

P-1. Milestone: Identify Texas counties having availability of high speed broadband communications lines.

P-1.1. Metric: Documentation of assessment of counties that identifies areas of the state that have or lack capacity for high speed broadband connections capable of supporting telemedicine, telehealth, telementoring, and telemonitoring

a. Data source: Results of the assessment Rationale/Evidence: See project goal.

P-2. Milestone: Establish the number of providers and / or peer specialists in underserved areas that have or do not have telecommunications equipment / software that can be used to provide telemedicine, telehealth, telementoring or telemonitoring services.

Further, determine the number of providers or peer specialists that would make use of such equipment / software if it were made available.

P-2.1. Metric: Survey of providers / peer organizations to identify need for and willingness to use advanced telecommunications equipment in the delivery or telemedicine, telehealth, telementoring, or telemonitoring.

a. Data source: Provider / peer responses to the survey.

b. Rationale/Evidence: See project goal.

P-3. Milestone: Evaluate effective and efficient models for the delivery of telehealth, telemedicine, telementoring, and telemonitoring.

P-3.1. Metric: Examine existing technology and models as well as information from leading providers of telemedicine, telehealth, telementoring, and telemonitoring services.

a. Data source: Information from literature and interviews of leading providers of these services.

b. Rationale/Evidence: See project goal.

P-4. Milestone: Procurement of telehealth, telemedicine, telementoring, and telemonitoring equipment

P-4.1. Metric: Inventory of new equipment purchased

a. Data Source: Review of inventory or receipts for purchase of equipment

b. Rationale/Evidence: See project goal.

P-5. Milestone: Procurement of Broadband Connection

P-5.1. Metric: Documentation of presence of active broadband connection

a. Data Source: Review of purchase receipt or demonstration of equipment

b. Rationale/Evidence: See project goal.

P-6. Milestone: Establishment of the Remote Site Locations where equipment /software will be available to consumers

P-6.1. Metric: Documentation of completion of site acquisition

a. Data Source: Purchase, lease, grant, or rental agreement

b. Rationale/Evidence: See project goal.

P-7. Milestone: Hiring of tele-presenters, as needed, for remote site equipment operation.

P-7.1. Metric: Documentation of acquisition of proper staff / training to operate equipment at remote locations

a. Data Source: Interviews with staff, review of hiring or payroll records

b. Rationale/Evidence: See project goal.

P-8. Milestone: Training for providers / peers on use of equipment / software

P-8.1. Metric: Documentation of completions of training on use of equipment / software

a. Data Source: Training roster.

b. Rationale/Evidence: See project goal.

P-9. Milestone: Development of manual of telemedicine or telehealth operations with administrative protocols and clinical guidelines.

P-9.1. Metric: Documentation of completion of manual and of use of manual in training sessions of providers/peers.

a. Data Source: Operations manual with written protocols and guidelines

P-10. Milestone: Evaluate and continuously improve telemedicine, telehealth, or telemonitoring service

P-10.1. Metric: Project planning and implementation documentation that describes plan, do, study act quality improvement cycles

a. Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement (i.e. how the project continuously uses data such as weekly run charts or monthly dashboards to drive improvement). Project reports also include output measures which describe the number and type of telemental transactions which occur.

P-11. Milestone: Individuals residing in underserved areas that have used telemedicine, telehealth, telementoring, and / or telemonitoring services for treatment of mental illness or alcohol and drug dependence.

P-11.1. Metric: NX% increase in number of individuals residing in underserved areas of the health partnership region who have used telemedicine, telehealth and telemonitoring services for treatment of mental illness or alcohol and drug dependence.

a. Numerator: Number of individuals residing in underserved areas that have used telemedicine, telehealth, telementoring, and / or telemonitoring services for treatment of mental illness or substance use disorders

b. Denominator: Number of individuals residing in underserved areas of the health partnership region who have received treatment for mental illness or substance use disorders.

c. Data Source: Encounter and Claims data (based on coding modifiers (e.g. HCPCs level II Modifiers)...

d. Rationale/Evidence: See project goal.

P-12. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-12.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-12.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.
a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-13. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.
P-13.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.
a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals
b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-14. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.
P-14.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.

a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-14.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.
a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]
P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]
c. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
d. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones:

I-15. Milestone: Satisfaction with telemental services

I-15.1. Metric: XX # % of consumer, peer and provider surveys indicate satisfaction with telemental services

a. Numerator: Number of patients, peers and providers reporting satisfaction

b. Denominator: Number of patients, peers and providers surveyed

c. Data Source: Satisfaction survey results.

d. Rationale/Evidence: See project goal.

This would be measured at baseline and various points during the project to measure satisfaction.

I-16. Milestone: Adherence to antipsychotics for individuals with schizophrenia who have used telemedicine, telehealth, and/or telemonitoring services (based on Medicaid Adult Core Measure/NQF# 1879).

I-16.1. Metric: X% of individuals with schizophrenia receiving telemental services who are prescribed an antipsychotic medication that had a Proportion of Days Covered (PDC) for antipsychotic medications greater or equal to 0.8 during the measurement period (12 consecutive months).

a. Numerator: Individuals with schizophrenia who filled at least two prescriptions for any oral antipsychotic medication and have a Proportion of Days Covered (PDC) for antipsychotic medications of at least 0.8.

b. Denominator: Individuals at least 18 years of age as of the end of the measurement period with schizophrenia with at least two claims for an antipsychotic during the measurement period (12 consecutive months) who used telehealth, telemedicine, or telemonitoring services.

c. Data Source: Claims and Encounter data

I-17. Milestone: Anti-depressant medication management

Description: Anti-depressant medication management over six months or Major Depressive Disorder anti-depressant medication during acute phase over 12 weeks (NQF# 0105)

I-17.1. Metric: The percentage of individuals 18 years of age and older receiving telemental who were diagnosed with a new episode of major depression and treated with antidepressant medication, and who remained on an antidepressant medication treatment:

a. Numerator:

- Effective Acute Phase Treatment: The number of individuals receiving telemental services with at least 84 days (12 weeks) of continuous treatment with antidepressant medication during the 114-day period following the Inpatient Service Day (IPSD) (inclusive).
- Effective Continuation Phase Treatment: The number of individuals receiving telemental services with at least 180 days (6 months) of continuous treatment with antidepressant medication (Table AMM-D) during the 231-day period following the IPSD (inclusive).

b. Denominator: The number of individuals receiving telemental services who are diagnosed with a New Episode of major depression and treated with antidepressant medication.
c. Data Source: Claims and Encounter Data
d. Rationale/Evidence: See project goal.

I-17.2. Metric: Percentage of individuals 18 years of age and older receiving telemental services who are treated for bipolar disorder with evidence of level-of-function evaluation at the time of the initial assessment and again within 12 weeks of initiating treatment (NQF# 0112)
a. Numerator: Level of functioning of individuals 18 years of age and older treated for bipolar disorder receiving telemental services
b. Denominator: individuals 18 years of age and older receiving telemental services with an initial or new episode of bipolar disorder
c. Data Source: Standardized Instruments (e.g. SOFAS, GARF, GAF, WASA), patient self-report, clinician assessment.
d. Rationale/Evidence: See project goal.

I-17.3. Other metrics measuring mental illness as endorsed by the National Quality Forum or other nationally recognized sources.

I-18. Milestone: Improve access to substance abuse treatment for individuals residing in underserved areas that have used telemedicine, telehealth, and/or telemonitoring services.
I-18.1. Metric: Initiation and Engagement of Alcohol and Other Drug Dependence Treatment: (a) Initiation, (b) Engagement for individuals with alcohol or other drug dependence who have used telemedicine, telehealth, and/or telemonitoring services (based on PQRS#305 and NQF#0004)
I-18.2. Metric: Percentage of adolescent and adult patients with a new episode of alcohol or other drug (AOD) dependence who initiate treatment through an outpatient telehealth or telemedicine visit within 14 days of the diagnosis and who initiated treatment AND who had two or more additional services with an AOD diagnosis within 30 days of the initial visit
a. Numerator: Patients who initiated treatment within 14 days of the initial diagnosis of AOD or intervention for AOD AND had two or more additional services with an AOD diagnosis within 30 days of the initial telemedicine or telehealth visit.
b. Denominator: Patients aged 13 years and older with a new episode of alcohol and other drug (AOD) dependence who are referred for telemedicine, telehealth, or telemonitoring services.

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]

b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

1.12 Enhance service availability (i.e., hours, locations, transportation, mobile clinics) of appropriate levels of behavioral health care

Project Goal

Positive healthcare outcomes are contingent on the ability of the patient to obtain both routine examinations and healthcare services as soon as possible after a specific need for care has been identified. However, many Texans are unable to access either routine services or needed care in a timely manner either because they lack transportation or because they are unable to schedule an appointment due to work scheduling conflicts (or school scheduling conflicts in the case of children) or because they have obligations to provide care for children or elderly relatives during normal work hours. While such barriers to access can compromise anyone's ability to make or keep scheduled appointments, individuals with behavioral health needs may be especially negatively affected. Many individual with behavioral health needs are reticent to seek treatment in the first place and such barriers may be sufficient to prevent access entirely. Others may be easily discouraged by such barriers and may drop out of treatment. Any such delay in accessing services or any break or disruption in services may result in functional loss and the worsening of symptoms. These negative health outcomes come at great personal cost to the individual and also result in increased costs to payers when care is finally obtained.

In order to mitigate the effects of these barriers to accessing care, Texas proposes to take specific steps to broaden access to care that will include an expansion of operating hours in a select number of clinics, an expansion of community-based service options (including the development of mobile clinics), and an expanded transportation program that will support appointments that are scheduled outside of normal business hours.

Project Options:

1.12.1 Establish extended operating hours at a select number of Local Mental Health Center clinics or other community-based settings in areas of the State where access to care is likely to be limited.

Required core project component:

a) Evaluate existing transportation programs and ensure that transportation to and from medical appointments is made available outside of normal operating hours. If transportation is a significant issue in care access, develop and implement improvements as part of larger project.

b) Review the intervention(s) impact on access to behavioral health services and identify "lessons learned," opportunities to scale all or part of the intervention(s) to a broader patient population, and identify key challenges associated with expansion of the intervention(s), including special considerations for safety-net populations.

1.12.2 Expand the number of community based settings where behavioral health services may be delivered in underserved areas

1.12.3 Develop and staff a number of mobile clinics that can provide access to care in very remote, inaccessible, or impoverished areas of Texas.

1.12.4 "Other" project option: Implement other evidence-based project to enhance service availability of appropriate levels of behavioral health care in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or

may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project.

Process Milestones

P-1. Milestone: Identify areas which lack sufficient transportation to appointments and extended operating hours

P-1.1. Metric: Assessment of gaps in accessibility to establish / prioritize geographic areas for intervention

a. Data Source: Survey of inpatient and outpatient providers; interviews with key stakeholders; Clinic records regarding kept and missed appointments

P-2. Milestone: Identify licenses, equipment requirements and other components needed to implement and operate options selected.

P-2.1. Metric: Develop a project plan and timeline detailing the operational needs, training materials, equipment and components

- Research existing regulations pertaining to the licensure requirements of psychiatric clinics in general to determine what requirements must be met.
- When required, obtain licenses and operational permits as required by the state, county or city in which the clinic will operate.
- (For mobile clinics) In consultation with medical professionals, determine the specific types of equipment and internal infrastructure that should be available in a mobile behavioral health clinic.
- (For mobile clinics) develop specific training materials for staff members. Examples of training could include travel and road safety, clinic operations, evidence based behavioral health practices, engagement and outreach strategies.

a. Data Source: Project Plan

P-3. Milestone: Develop administrative protocols and clinical guidelines for projects selected (i.e. protocols for a mobile clinic or guidelines for a transportation program).

P-3.1. Metric: Manual of operations for the project detailing administrative protocols and clinical guidelines

a. Data Source: Administrative protocols; Clinical guidelines

P-4. Milestone: Hire and train staff to operate and manage projects selected.

P-4.1. Metric: Number of staff secured and trained

a. Data Source: Project records; Training curricula as develop in P-2

P-5. Milestone: Establish extended hours, transportation and / or mobile clinic options

P-5.1. Metric: Number of areas prioritized for intervention with options in operation

a. Number of patients served in these options

P-6. Milestone: Establish behavioral health services in new community-based settings in underserved areas.

P-6.1. Metric: Number of new community-based settings where behavioral health services are delivered

a. Number of patients served at these new community-based sites

P-7. Milestone: Evaluate and continuously improve services

P-7.1. Metric: Project planning and implementation documentation demonstrates plan, do, study act quality improvement cycles

a. Data Source: Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement (i.e. how the project continuously uses data such as weekly run charts or monthly dashboards to drive improvement)

P-8. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-8.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-8.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.

a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-9. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.

P-9.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.

a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals
b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-10. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.

P-10.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.
a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-10.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.
a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]

P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]
a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
b. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones:

I-11. Milestone: Increased utilization of community behavioral healthcare

I-11.1. Metric: Percent utilization of community behavioral healthcare services.

a. Numerator: Number receiving community behavioral healthcare services from mobile clinics after access expansion

b. Denominator: Number of people receiving community behavioral health services after access expansion.

c. Data source: Claims data and encounter data from community behavioral health sites and expanded transportation programs.

I-12. Milestone: Use of Emergency Department Care by individuals with mental illness or substance use disorders.

I-12.1. Metric: X Percent decrease in inappropriate utilization of Emergency Department.

a. Numerator: total number of individuals receiving services through mobile clinics or expanded access sites who inappropriately use emergency department.

b. Denominator: total number of individuals receiving services through mobile clinics or expanded access sites

c. Data Source; Claims data and encounter data from ED and expanded access or mobile clinic sites

d. Rationale: see project description.

I-13. Milestone: Adherence to scheduled appointments.

I-13.1. Metric: X% Decrease in the number of canceled or no-show appointments.

a. Numerator: number of canceled or “no-show” appointments for individuals receiving services through mobile clinics or expanded access sites

b. Denominator: number of individuals receiving services through mobile clinics or expanded access sites.
Note: This would be measured at specified time intervals throughout the project to determine if there was a decrease.

c. Data Source: Clinical records from mobile clinics or expanded access sites

I-14. Milestone: Improved Consumer satisfaction with Access

I-14.1. Metric: X% of people reporting satisfaction with access to care

a. Numerator: The number of individuals receiving services through mobile clinics or expanded access sites that have expressed satisfaction with services.

b. Denominator: The number of individuals receiving services through mobile clinics or expanded access sites

c. Data Source: Survey data from CAHPS, MHSIP or other validated instrument; Data from completed consumer satisfaction surveys.

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]

b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

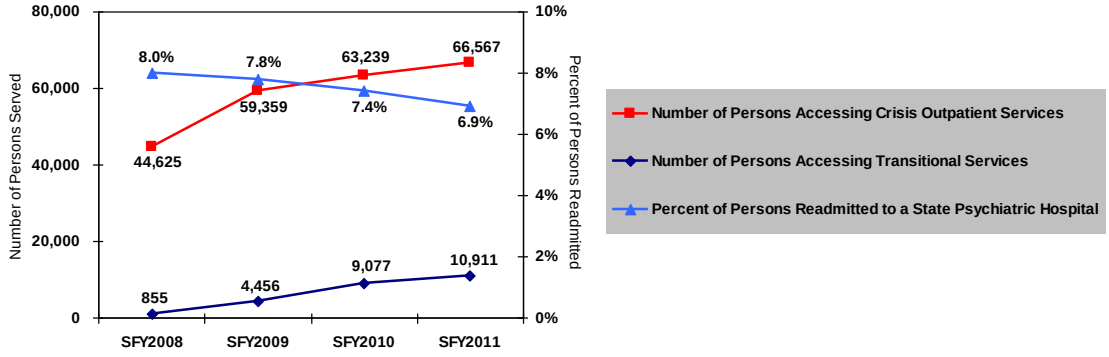
- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

1.13 Development of behavioral health crisis stabilization services as alternatives to hospitalization.

Project Goal

When a consumer lacks appropriate behavioral health crisis resolution mechanisms, first responders are often limited in their options to resolve the situation. Sometimes the choice comes down to the ER, jail or an inpatient hospital bed. Crisis stabilization services can be developed that create alternatives to these less desirable settings. Building on existing systems, communities can develop crisis alternatives such as sobering units, crisis residential settings and crisis respite programs with varying degrees of clinical services based on the needs of clients. While hospitalization provides a high degree of safety for the person in crisis, it is very expensive and is often more than what is needed to address the crisis. Community-base crisis alternatives can effectively reduce expensive and undesirable outcomes, such as preventable inpatient stays. For example, state psychiatric hospital recidivism trended downward coincident with implementation of crisis outpatient services in some Texas communities. The percent of persons readmitted to a Texas state psychiatric hospital within 30 days decreased from 8.0% in SFY2008 (before implementation of alternatives) to 6.9% in SFY2011.[50]

Figure 2. **Number of persons accessing crisis outpatient services and transitional services at DSHS-funded community mental health centers compared to percent of persons readmitted to a state psychiatric hospital within 30 days, SFY2008-2011.**



Project Options

1.13.1 Develop and implement crisis stabilization services to address the identified gaps in the current community crisis system

Required core project components:

a) Convene community stakeholders who can support the development of crisis stabilization services to conduct a gap analysis of the current community crisis system and develop a specific action plan that identifies specific crisis stabilization services to address identified gaps (e.g. for example, one community with high rates of incarceration and/or ED visits for intoxicated patients may need a sobering unit while another community

[50] **Behavioral Health NEWS BRIEF Vol. 7 Issue 3 -** May 25, 2012 , http://www.dshs.state.tx.us/sa/_BHNB/

with high rates of hospitalizations for mild exacerbations mental illness that could be treated in community setting may need crisis residential programs).

b) Analyze the current system of crisis stabilization services available in the community including capacity of each service, current utilization patterns, eligibility criteria and discharge criteria for each service.

c) Assess the behavioral health needs of patients currently receiving crisis services in the jails, EDs, or psychiatric hospitals. Determine the types and volume of services needed to resolve crises in community-based settings. Then conduct a gap analysis that will result in a data-driven plan to develop specific community-based crisis stabilization alternatives that will meet the behavioral health needs of the patients (e.g. a minor emergency stabilization site for first responders to utilize as an alternative to costly and time consuming Emergency Department settings)

d) Explore potential crisis alternative service models and determine acceptable and feasible models for implementation.

e) Review the intervention(s) impact on access to and quality of behavioral health crisis stabilization services and identify "lessons learned," opportunities to scale all or part of the intervention(s) to a broader patient population, and identify key challenges associated with expansion of the intervention(s), including special considerations for safety-net populations

1.13.2 "Other" project option: Implement other evidence-based project to develop behavioral health crisis stabilization services in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project.

Note: All of the project options in project area 1.13 should include a component to conduct quality improvement for the project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, "lessons learned," opportunities to scale all or part of the project to a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations.

Process Milestones:

P-1. Milestone: Conduct stakeholder meetings among consumers, family members, law enforcement, medical staff and social workers from EDs and psychiatric hospitals, EMS, and relevant community behavioral health services providers.

P-1.1. Metric: Number of meetings and participants.

a. Data Source: Attendance lists

P-2. Milestone: Conduct mapping and gap analysis of current crisis system.

P-2.1. Metric: Produce a written analysis of community needs for crisis services.

a. Data Source: Written plan

P-3. Milestone: Develop implementation plans for needed crisis services.

P-3.1. Metric: Produce data-driven written action plan for development of specific crisis stabilization alternatives that are needed in each community based on gap analysis and assessment of needs.

a. Data Source: Written plan

P-4. Milestone: Hire and train staff to implement identified crisis stabilization services.

P-4.1. Metric: Number of staff hired and trained.

a. Staff rosters and training records

b. Data Source: Training curricula

P-5. Milestone: Develop administration of operational protocols and clinical guidelines for crisis services.

P-5.1. Metric: Completion of policies and procedures.

a. Data Source: Internal policy and procedures documents and operations manual.

P-6. Milestone: Evaluate and continuously improve crisis services

P-6.1. Metric: Project planning and implementation documentation demonstrates plan, do, study act quality improvement cycles

a. Data Source: Project reports include examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement (i.e. how the project continuously uses data such as weekly run charts or monthly dashboards to drive improvement)

P-7. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-7.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-7.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.

a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-8. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.

P-8.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.

a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals

b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-9. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.

P-9.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.

a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-9.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.

a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]
P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]
a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
b. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones:

I-10. Milestone: Criminal Justice Admissions/Readmissions
I-10.1. Metric: X% decrease in preventable admissions and readmissions into Criminal Justice System;
a. Numerator: The number of individuals receiving crisis stabilization who had a potentially preventable readmission to a criminal justice setting (e.g. jail, prison, etc.) within the measurement period.
b. Denominator: The number of individuals receiving individuals receiving crisis stabilization. This would be measured at specified time intervals throughout the project to determine if there was a decrease.
c. Data Source: Criminal justice system records, and data from local crisis stabilization sites.

I-11. Milestone: Costs avoided by using lower cost crisis alternative settings

I-11.1. Metric: Costs avoided by comparing utilization of lower cost alternative settings with higher cost settings such as ER, jail, hospitalization.

a. Numerator: Cost of services for individuals using the crisis alternative settings.

b. Denominator: Total cost for crisis care to individuals in the regional partnership study area.

c. Data Source: Claims, encounters and service event data from ER, forensic records, communality mental health uniform assessment data

I-12. Milestone: Utilization of appropriate crisis alternatives

I-12.1. Metric: X% increase in utilization of appropriate crisis alternatives.

a. Numerator: Number of people receiving community behavioral healthcare services from appropriate crisis alternatives

b. Denominator: Number of people receiving community behavioral health services in RHP project sites.
This would be measured at specified time intervals throughout the project to determine if there was an increase.

c. Data source: Claims, encounter, and clinical record data.

d. Rationale: see project goals.

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]

b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

1.14 Develop Workforce enhancement initiatives to support access to behavioral health providers in underserved markets and areas (e.g., psychiatrists, psychologists, LMSWs, LPCs and LMFTs.)

Project Goal:
The goal of this project is to enhance access and reduce shortages in specialty behavioral health care to improve local integration of behavioral health care into the overall health delivery system; improve consumer choice and increase availability of effective, lower-cost alternatives to inpatient care, prevent inpatient admissions when possible and promote recovery from behavioral health disorders. The supply of behavioral health care providers is inadequate in most of the State. In 2011, 195 (77%) of Texas' 254 counties held federal designations as whole county Health Provider Shortage Areas (HPSAs) in relation to behavioral health.[51] Indeed, Texas ranks far below the national average in the number of mental health professionals per 100,000 residents. These shortages are even greater in rural, poor and Texas – Mexico border communities.

Project Options:

1.14.1 Implement strategies defined in the plan to encourage behavioral health practitioners to serve medically indigent public health consumers in HPSA areas or in localities within non-HPSA counties which do not have access equal to the rest of the county. Examples of strategies could include marketing campaigns to attract providers, enhanced residency programs or structured financial and non-financial incentive programs to attract and retain providers, identifying and engaging individual health care workers early in their studies/careers and providing training in identification and management of behavioral health conditions to other non-behavioral health disciplines (e.g., ANPs, PAs).

Required core project components:

a) Conduct a qualitative and quantitative gap analysis to identify needed behavioral health specialty vocations lacking in the health care region and the issues contributing to the gaps.

b) Develop plan to remediate gaps identified and data reporting mechanism to assess progress toward goal. This plan will specifically identify:
- The severity of shortages of behavioral health specialists in a region by type (psychiatrists, licensed psychologists, nurse practitioners, physicians assistants, nurses, social workers, licensed professional counselors, licensed marriage and family therapists, licensed chemical dependency counselors, peer support specialists, community health workers etc.)
- Recruitment targets by specialty over a specified time period.
- Strategies for recruiting healthcare specialists
- Strategies for developing training for primary care providers to enhance their understanding of and competency in the delivery of behavioral health services and thereby expand their scope of practice.

c) Assess and refine strategies implemented using quantitative and qualitative data. Review the intervention(s) impact on behavioral health workforce in

[51] "Highlights: The Supply of Mental Health Professionals in Texas -2010", Texas Department of State Health Services Center for Health Statistics, E-Publication No. E25-12347. Accessed at: http://www.dshs.state.tx.us/chs/hprc/publicat.shtm

HPSA areas and identify "lessons learned," opportunities to scale all or part of the intervention(s) to a broader patient population, and identify key challenges associated with expansion of the intervention(s), including special considerations for safety-net populations

1.14.2 "Other" project option: Implement other evidence-based project to develop workforce enhancement initiatives to support access to behavioral health providers in underserved markets in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project.

Process Milestones:

P-1. Milestone: Conduct gap analysis

P-1.1. Metric: Baseline analysis of behavioral health patient population, which may include elements such as consumer demographics, proximity to sources of specialty care, utilization of Emergency Department , other crisis and inpatient services including state hospital services used by residents of the region, incarceration rates, most common sites of mental health care, most prevalent diagnoses, co-morbidities; existing provider caseload, provider demographics and other factors of regional significance

a. Data Source: HPSA data; Provider licensing and enrollment data from state and local sources; Claims and encounters from regional and state data sources; Provider and consumer survey, interview and focus group data

P-2. Milestone: Remediation Plan

P-2.1. Metric: Remediation plan which addresses elements relating to shortages identified in the gap analysis

a. Data Source: written plan from Regional Partnerships

P-3. Milestone: Resource Identification

P-3.1. Metric: Identify specific disciplines and knowledge base that would assist primary care providers to expand their score of practice to address the needs of individuals with complex behavioral health conditions

a. Data Source: Written plan from Regional Partnerships

P-4. Milestone: Evaluate and continuously improve strategies

P-4.1. Metric: Project planning and implementation documentation describes plan, do, study act quality improvement cycles

a. Data Source: Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement (i.e. how the project continuously uses data such as weekly run charts or monthly dashboards to drive improvement)

P-5. Milestone: Number of behavioral health providers serving medically indigent public health clients

P-5.1. Metric: Track and report the number of behavioral health providers serving medically indigent public health clients by provider type on at least a quarterly basis.

a. Numerator: Number of behavioral health and related providers serving medically indigent consumers in the RHP study area

b. Denominator: Number of behavioral health and related providers in the RHP study area.
This would be measured at specified time intervals throughout the project to determine if there was an increase.

c. Data Source: Provider registration and survey data.

P-6. Milestone: Non-behavioral health provider training

P-6.1. Metric: Track and report the number of non-behavioral health providers who have been trained to recognize and assist in management of behavioral health conditions.

a. Numerator: Number of non-behavioral health providers who have been trained to recognize and assist in management of behavioral health conditions in the RHP study area.

b. Denominator: Number of non-behavioral health providers who are in the RHP study area.
This would be measured at specified time intervals throughout the project to determine if there was an increase.

c. Data Source: Training rosters

P-7. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-7.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-7.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.

a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-8. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.

P-8.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.

a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals

b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-9. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.

P-9.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.

a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-9.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.

a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]
P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]
a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
b. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones:

I-10. Milestone: Emergency Department Use
I-10.1. Metric: X% reduction in inappropriate use of Emergency Department Care by individuals with mental illness or substance use disorders.
a. Numerator: total number of individuals receiving behavioral health services through provider enhancements created under this initiative.
b. Denominator: total number of individuals receiving behavioral health services in the RHP project site.
c. Data Source: Claims data and encounter data from ED and project service data.
d. Rationale: see project description.

I-11. Milestone: Consumer satisfaction with Care

I-11.1. Metric: X% People reporting satisfaction with care

a. Numerator: The number of individuals receiving behavioral health services through enhanced provider base that have expressed satisfaction with services.

b. Denominator: The number of individuals receiving behavioral health services through enhanced provider base

c. Data Source: Survey data from CAHPS, MHSIP or other validated instrument. Data from completed consumer satisfaction surveys.

I-11.2. Metric: X% State Psychiatric Facility Bed Utilization

a. Numerator: The number of individuals receiving behavioral health services through enhanced provider base that have been admitted into state psychiatric facilities.

b. Denominator: The number of individuals admitted to state psychiatric facilities

c. Data Source: Claims/ encounter and clinical record data from Avatar (state hospital clinical system), and project data.

I-12. Milestone: Cultural and Linguistic Diversity

I-12.1. Metric: X% increase in number of culturally and linguistically diverse behavioral health providers, especially in HPSA's along the Texas/ Mexico border.

a. Numerator: Number of culturally and linguistically diverse behavioral health serving consumers in the RHP study area

b. Denominator: Number of behavioral health providers serving RHP consumers in the study area.
This would be measured at baseline and specified time intervals throughout the project to determine if there was an increase.

c. Data Source: Project data, Provider registration, and survey data.

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]

b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.

- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

Category 2 Innovation and Redesign

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2.1 Enhance/Expand Medical Homes

Project Goal:
The goal of projects under this heading is to expand or enhance the delivery of care provided through the Patient-Centered Medical Home (PCMH) model[52]. The PCMH provides a primary care "home base" for patients. Under this model, patients are assigned a health care team who tailors services to a patient's unique health care needs, effectively coordinates the patient's care across inpatient and outpatient settings, and proactively provides preventive, primary, routine and chronic care.

Project Options:

2.1.1 Develop, implement, and evaluate action plans to enhance/eliminate gaps in the development of various aspects of PCMH standards.
Required core project components:

- **a)** Utilize a gap analysis to assess and/or measure hospital-affiliated and/or PCPs' NCQA PCMH readiness.
- **b)** Conduct feasibility studies to determine necessary steps to achieve NCQA PCMH status
- **c)** Conduct educational sessions for primary care physician practice offices, hospital boards of directors, medical staff and senior leadership on the elements of PCMH, its rationale and vision.
- **d)** Conduct quality improvement for project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, identifying "lessons learned," opportunities to scale all or part of the project to a broader patient population, and identifying key challenges associated with expansion of the project, including special considerations for safety-net populations.

2.1.2 Collaborate with an affiliated Patient-Centered Medical Home to integrate care management and coordination for shared, high-risk patients.
Required core project components:

- **a)** Improve data exchange between hospitals and affiliated medical home sites.
- **b)** Develop best practices plan to eliminate gaps in the readiness assessment.
- **c)** Hire and train team members to create multidisciplinary teams including social workers, health coaches, care managers, and nurses with a diverse skill set that can meet the needs of the shared, high-risk patients
- **d)** Implement a comprehensive, multidisciplinary intervention to address the needs of the shared, high-risk patients
- **e)** Evaluate the success of the intervention at decreasing ED and inpatient hospitalization by shared, high-risk patients and use this data in rapid-cycle improvement to improve the intervention.
- **f)** Conduct quality improvement for project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, identifying "lessons learned," opportunities to scale all or part of the project to a broader patient population, and identifying key

52 http://www.aafp.org/online/etc/medialib/aafp_org/documents/about/pcmh.Par.0001.File.dat/PCMH.pdf

challenges associated with expansion of the project, including special considerations for safety-net populations.

2.1.3 Implement medical homes in HPSA and other rural and impoverished areas using evidence-approached change concepts for practice transformation developed by the Commonwealth Fund's Safety Net Medical Home Initiative:
Required core project components:

a) Empanelment: Assign all patients to a primary care provider within the medical home. Understand practice supply and demand, and balance patient load accordingly.

b) Restructure staffing into multidisciplinary care teams that manage a panel of patients where providers and staff operate at the top of their license. Define roles and distribute tasks among care team members to reflect the skills, abilities, and credentials of team members.

c) Link patients to a provider and care team so both patients and provider/care team recognizes each other as partners in care.

d) Assure that patients are able to see their provider or care team whenever possible.

e) Promote and expand access to the medical home by ensuring that established patients have 24/7 continuous access to their care teams via phone, e-mail, or in-person visits.

f) Conduct quality improvement for project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, identifying "lessons learned," opportunities to scale all or part of the project to a broader patient population, and identifying key challenges associated with expansion of the project, including special considerations for safety-net populations.

2.1.4 "Other" project option: Implement other evidence-based project to enhance/expand medical home in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project. Milestone I-19 includes suggestions for improvement metrics to use with this innovative project option.

Note: All of the project options in project area 2.1 should include a component to conduct quality improvement for the project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, "lessons learned," opportunities to scale all or part of the project to a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations.

Note: PCMH models include investments in projects that are the foundation of delivery system change and a complete package of change. Therefore, it is preferable to pursue a full continuum of projects (PCMH readiness preparations, the establishment or expansion of medical homes which may include gap analyses and eventual application for PCMH recognition[53] to a nationally recognized organization

53 http://www.medicalhomeinfo.org/national/recognition_programs.aspx

such as NCQA, as well as educating various constituent groups within hospitals and primary care practices about the essential elements of the NCQA medical home standards). [54,55,56,57,58,59,60]

Rationale:
Federal, state, and health care providers share goals to promote more patient-centered care focused on wellness and coordinated care. In addition, the PCMH model is viewed as a foundation for the ability to accept alternative payment models under payment reform. PCMH development is a multi-year transformational effort and is viewed as a foundational way to deliver care aligned with payment reform models and the Triple Aim goals of better health, better patient experience of care, and ultimately better cost-effectiveness. By providing the right care at the right time and in the right setting, over time, patients may see their health improve, rely less on costly ED visits, incur fewer avoidable hospital stays, and report greater patient satisfaction. These projects all are focused on the concepts of the PCMH model; yet, they take different shapes for different providers.[61]

This initiative aims to eliminate fragmented and uncoordinated care, which can lead to emergency department and hospital over-utilization. The projects associated with Medical Homes establish a foundation for transforming the primary care landscape in Texas by emphasizing enhanced chronic disease management through team-based care.

Process Milestones:

P-1. Milestone: Implement the medical home model in primary care clinics

P-1.1. Metric: Increase number of primary care clinics using medical home model

a. Numerator: Number of primary care clinics using medical home model

b. Denominator: Total number of primary care clinics

c. Rationale/Evidence: NAPH found that nearly 40% of programs could offer either anecdotal or quantitative evidence of reduced ED usage—attributed to the redirection of primary care-seeking patients from the ED to a medical home.[62] In addition to reductions in ED utilization, the medical home model has helped improve the delivery and quality of primary care and reduce costs.

P-2. Milestone: Put in place policies and systems to enhance patient access to the medical home. Enhanced access to care is available through systems such as open scheduling,

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54 http://www.commonwealthfund.org/Topics/Patient-Centered-Care.aspx
55 http://www.qhmedicalhome.org/pcmh-qualis-health/change-concepts
56 http://www.pcmh.ahrq.gov/portal/server.pt/community/pcmh__home/1483
57 http://www.medicalhomeforall.com/
58 http://www.acponline.org/running_practice/pcmh/
59 http://www.pediatricmedhome.org/
60 Transformed: http://www.transformed.com/index.cfm
61 http://www.pcpcc.net/content/pcmh-vision-reality

62 NAPH Research Brief February 2010 Safety Net Medical Homes Establish "Medical Homes"

expanded hours and new options for communication between patients, their personal physician, and practice staff. [63]

P-2.1. Metric: Performing Provider policies on medical home

a. Data Source: Performing Provider's "Policies and Procedures" documents

b. Rationale/Evidence: Operationalizing the work as part of the "Policies and Procedures" for an organization will make the work the "norm" or expectation for the organization and its employees.

P-3. Milestone: Reorganize staff into primary care teams responsible for the coordination of patient care. Teams can be designed in a variety of ways depending on the size and needs of the patient population and the resources of the practice. Ideally, primary care practices should be structured to respond to all common problems for which their patients seek care. Most successful practices are organized around an accountable clinician (usually a physician or advanced registered nurse practitioner or physician assistant) and a medical assistant dyad that interact continuously throughout the day. Other team members are usually responsible for providing self-management support (e.g., nurse or clinical pharmacist, or health educator) or arranging other resources (e.g., social worker). Regardless of team composition, care must be taken to keep the team size relatively small (fewer than five to seven members) because team functioning breaks down as teams grow. Other clinic staff members, including billing staff, receptionists, computer technicians, and laboratory personnel, complement the primary care teams. Each of these staff members can play important roles in engendering strong trusting relationships between patients and their care team.[64]

P-3.1. Metric: Primary care team

63http://www.aafp.org/online/etc/medialib/aafp_org/documents/policy/fed/jointprinciplespcmh0207.Par.0001.File.tmp/022107medicalhome.pdf

64 Safety Net Medical Home Initiative. Coleman K, Reid R, Continuous and Team-Based Healing Relationships Implementation Guide: Improving Patient Care Through Teams. 1st ed. Burton T, ed. Seattle, WA: The MacColl Center for Health Care Innovation at the Group Health Institute and Qualis Health; December 2010.
http://www.safetynetmedicalhome.org/sites/default/files/Implementation-Guide-Team-Based-Care.pdf

a. Numerator: Number of staff organized into care teams
b. Denominator: Total number of staff
c. Data Source: Documentation of staff assignments into care teams
d. Rationale/Evidence: "Primary care physicians are expected to provide acute, chronic, and preventive care to their patients while building meaningful relationships with those patients, and managing multiple diagnoses according to a host of evidence-based guidelines. A research study estimates that it would take 7.4 hours per working day to provide all recommended preventive care to a panel of 2,500 patients plus an additional 10.6 hours to adequately manage this panel's chronic conditions.[65] It is clear that primary care physicians in the 15-minute visit can no longer do what their patients expect and deserve."

P-4. Milestone: Develop staffing plan to expand primary care team roles; Expand and redefine the roles and responsibilities of primary care team members.[66]

P-4.1. Metric: Expanded primary care team member roles;

a. Data Source: Revised job descriptions
b. Rationale/Evidence: "Primary care physicians are expected to provide acute, chronic, and preventive care to their patients while building meaningful relationships with those patients, and managing multiple diagnoses according to a host of evidence-based guidelines. A research study estimates that it would take 7.4 hours per working day to provide all recommended preventive care to a panel of 2,500 patients plus an additional 10.6 hours to adequately manage this panel's chronic conditions.[67] It is clear that primary care physicians in the 15-minute visit can no longer do what their patients expect and deserve."

P-4.2. Metric: Schedule of training and educational opportunities for providers and staff on expanded roles

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65 Yarnell, K.S., K.I. Pollak, T. Ostbye, K.M. Krause, J.L. Michener. "Primary Care: is there enough time for prevention?" American Journal of Public Health 2003: 93:635-41; and Ostbye, T.,K.S Yarnal, K.M. Krause, K.I. Pollak, M. Gradison, J.L. Michener. "Is there time for management of patients with chronic diseases in primary c are?" Annals of Family Medicine 2005; 3:209-14.

66 Safety Net Medical Home Initiative. Coleman K. Redefining Staff Roles – Where to Start. Seattle, WA: The MacColl Center for Health Care Innovation at Group Health Research Institute and Qualis Health; February 2012. http://www.safetynetmedicalhome.org/sites/default/files/Implementation-Guide-Supplement-Team-Based-Care.pdf

67 Yarnell, K.S., K.I. Pollak, T. Ostbye, K.M. Krause, J.L. Michener. "Primary Care: is there enough time for prevention?" American Journal of Public Health 2003: 93:635-41; and Ostbye, T.,K.S Yarnal, K.M. Krause, K.I. Pollak, M. Gradison, J.L. Michener. "Is there time for management of patients with chronic diseases in primary c are?" Annals of Family Medicine 2005; 3:209-14.

a. Data Source: and documentation of established orientation and internal trainings for expanded roles and responsibilities beyond the basic education programs completed prior to hire.

b. Rationale/Evidence: Additionally, "basic medical assistant (MA) education programs do not adequately prepare individuals for the roles that MAs are increasingly asked to perform in community clinics. While most MAs are adequately trained in basic clinical skills such as taking and recording vital signs, most MA programs offer little preparation in areas such as patient care coordination or the use of the health information technology in patient management."[68]

P-5. Milestone: Determine the appropriate panel size[69] for primary care provider teams, potentially based on staff capacity, demographics, and diseases. Empanelment should be based on the following principles: Assign all patients to a provider panel and confirm assignments with providers and patients; review and update panel assignments on a regular basis; Assess practice supply and demand, and balance patient load accordingly; Use panel data and registries to proactively contact and track patients by disease status, risk status, self-management status, community and family need. 70.

P-5.1. Metric: Determine Panel size[71]

a. Data Source: Panel size determination tool, patient registry, EHR, or needs assessment tool to assess appropriate panel size based on patient needs (as determined by the clinic) for proactive panel management

b. Rationale/Evidence: Panel size analysis could support panel management decisions as clinics approach population management.[72] "At the heart of the Patient Centered Medical Home model is the relationship between a patient and a provider and his/her practice team. All the activities of an effective patient centered medical home should strengthen and reinforce the primacy of that relationship, and its accountability for the patient's care. The positive impacts of seeing the same provider on patient experience, clinical care, and outcomes have been unequivocally demonstrated by research and practice."[73]

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68 S. Chapman, M. Chan, T. Bates, "Medical Assistants in Community Clinics: Perspectives on Innovation in Role Development" Research Brief, Center for the Health Professions at UCSF, June 2010.

69 Measure panel size by the number of patients assigned to a provider care team, by provider FTE. For part-time providers or residents who are assigned a dedicated panel, list the true panel size with percentage FTE. Panel size analysis could support panel management decisions as clinics approach population management.

70 http://www.safetynetmedicalhome.org/change-concepts/empanelment

71 See Determining Perfect Panel Size excel tool found at http://www.safetynetmedicalhome.org/change-concepts/empanelment

72 Safety Net Medical Home Initiative. Coleman CF, Phillips KE, eds. Empanelment Implementation Guide: Establishing Patient-Provider Relationships. 1st ed. Seattle, WA: The MacColl Institute for Healthcare Innovation at the Group Health Research Institute and Qualis Health, March 2010.

73 Safety Net Medical Home Initiative. Coleman CF, Phillips KE, eds. Empanelment Implementation Guide: Establishing Patient-Provider Relationships. 1st ed. Seattle, WA: The MacColl Institute for Healthcare Innovation at the Group Health Research Institute and Qualis Health, March 2010; Saulz JW, Lochner J. Interpersonal continuity of care and care outcomes: a critical review. Ann Fam Med. 2005;3(2):159-66; and Haggerty JL, Reid RJ, Freeman GK, Starfield BH, Adair, CE, McKendry R. Continuity of Care: a Multidisciplinary Review. BMJ, 2003;327(7425):1219-21.

P-6. Milestone: Establish criteria for medical home assignment

P-6.1. Metric: Medical home assignment criteria

a. Data Source: Submission of medical home assignment criteria, such as patients with specified chronic conditions;[74] patients who have had multiple visits to a clinic; high-risk patients; patients needing care management; high users of health care services;[75] and patients with particular socio-economic, linguistic, and physical needs[76]

b. Performing Provider policies and procedures or other similar documents

c. Rationale/Evidence: With limited resources, it may behoove some organizations to focus their work on medical homes within a subset of patients. Also, some of these higher risk patients are the highest users of health care resources and dollars. Focusing on these cohorts should result in reduced health care costs. At Carolinas Medical Center in Charlotte, NC, interventions targeting high-risk patients who utilized the hospital's medical home resulted in an 80% decrease in hospitalizations and ED visits for the intervention group.[77]

P-7. Milestone: Track the assignment of patients to the designated care team

P-7.1. Metric: Tracking medical home patients

a. Data Source: Submission of tracking report. Can be tracked through the practice management system, EHR, or other documentation as designated by Performing Provider

b. Rationale/Evidence: Review panel status (open/closed) and panel fill rates on a monthly basis for equity to be able to adjust to changing environment (e.g., patient preference, extended provider leave).

P-8. Milestone: Develop or utilize evidence based training materials for medical homes based upon the model change concepts. [78]

P-8.1. Metric: Documentation of staff training materials.

a. Data Source: Training materials.

b. Rationale/Evidence: PCMH model change concepts are widely supported as the means to achieve meaningful and sustainable PCMH practice transformation.

P-9. Milestone: Train medical home personnel on PCMH change concepts.

P-9.1. Metric: Number of medical home personnel trained

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74 Such as: Diabetes, hypertension, chronic heart failure, obesity, asthma, post-secondary stroke, community-acquired pneumonia (CAP), HIV/AIDS, chronic pain, and depression.

75 Such as patients who have presented in the ED, been admitted to the hospital, or visited specialty clinics multiple times.

76 Such as seniors and persons with disabilities, homeless people, and immigrants.

77 Wade, KE, Furney, SL,Hall, MN (2009) Impact of Community –Based Patient-Centered Medical Homes on Appropriate Health Care Utilization at Carolinas Medical Center. NC Med J, 70(4), 341-345.

78 http://www.qhmedicalhome.org/pcmh-qualis-health/change-concepts

a. Numerator: number of personnel trained on PCMH change concepts
b. Denominator: total number of personnel
c. Data Source: Training records and HR documents
d. Rationale/Evidence: PCMH model change concepts are widely supported as the means to achieve meaningful and sustainable PCMH practice transformation.

P-10. Milestone: Expand and document interaction types between patient and healthcare team beyond one-to-one visits to include group visits, telephone visits, and other interaction types

P-10.1. Metric: Documentation of interaction types and which patients would most benefit from particular interaction types.

a. Submission of interaction tracking report. Can be tracked through the practice management system, EHR, or other documentation as designated by Performing Provider.

P-10.2. Metric: Percent of hospitalized patients who have clinical, telephonic or face-to-face follow-up interaction with the care team within 2 days of discharge during the measurement month at sites with implemented complex care management.

a. Numerator: Number of patients receiving follow-up care within 2 days of discharge.
b. Denominator: Number of discharged patients.
c. Data Source: Practice management system, EHR, or other documentation as designated by Performing Provider.

P-10.3. Metric: Percent of patients who have been seen in the Emergency Room with a documented chronic illness problem, who have clinical telephonic or face-to-face follow-up interaction with the care team within 2 days of ER visit during the measurement month at sites with implemented complex care management.

a. Numerator: Number of patients receiving follow-up care within 2 days of ER visit.
b. Denominator: Number of patients with documented ER visit.
c. Data Source: Practice management system, EHR, or other documentation as designated by Performing Provider.

P-11. Milestone: Identify current utilization rates of preventive services and implement a system to improve rates among targeted population (must select at least one metric):

P-11.1. Metric: Implement a patient registry that captures preventive services utilization.

a. Numerator: Number of patients overdue for preventive services.
b. Denominator: Total number of patients in the registry
c. Data Source: Patient registry or EHR
d. Rationale/Evidence: Relationship-centered aspects of PCMH are more highly correlated with preventive services delivery in community primary care practices than are information technology capabilities. [79]

P-11.2. Metric: Implement a recall system that allow staff to report which patients are overdue for which preventive services and track when and how patients were notified on their needed services.

a. Data Source: Documentation of recall report
b. Rationale/Evidence: The goal of this milestone is to make evidence-based care routine. This is accomplished through both planned interactions initiated by the practice, and through point-of-care reminders which help ensure that every interaction is informed by the clinical needs and wishes of the patient. This means that the availability of up-to-date patient information is key, as well as the care team's ability to review patient data before the visit and communicate via team huddles or other formats to work efficiently as a unit and maximize the value of each interaction.

P-11.3. Metric: Develop prevention services education management and outreach program
a. Data Source: Program documentation, including policies and procedures
b. Rationale/Evidence: Educating patients about the benefits and availability of preventive services is critical to patient-centered care and patient wellness. Additionally, having processes in place that define targeted populations and outreach activities will promote wellness as a culture within the patient panel practice at large.

P-12. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.
P-12.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

79 http://annfammed.org/content/8/2/108.full.pdf+html

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-12.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.
a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-13. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.
P-13.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.
a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals
b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-14. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.
P-14.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.

a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-14.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.
a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]
P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]
a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
b. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones:

I-12. Milestone: Based on criteria, improve the number of eligible patients[80] that are assigned to the medical homes.

- I-12.1. Metric: Number or percent of eligible patients assigned to medical homes, where "eligible" is defined by the Performing Provider
  - a. Numerator: Number of eligible patients assigned to a medical home
  - b. Denominator: Total number of eligible patients
  - c. Data Source: Practice management system, EHR, or other documentation as designated by Performing Provider
  - d. Rationale/Evidence: Murray M, Davies M, Boushon B, Panel Size: How Many Patients Can One Doctor Manage? *Fam Pract Manag.* 2007 Apr;14(4):44-51

I-13. Milestone: New patients assigned to medical homes receive their first appointment in a timely manner

- I-13.1. Metric: Improve number or percent of new patients assigned to medical homes that are contacted for their first patient visit within 60-120 days
  - a. Numerator: Number of new patients contacted within specified days
  - b. Denominator: Total number of new patients
  - c. Data Source: Practice management or scheduling systems, registry, EHR, or other documentation as designated by Performing Provider
  - d. Rationale/Evidence: It is important to get new patients into the medical home in a timely manner.

I-14. Milestone: Patient access to medical home

- I-14.1. Metric: Third Next-Available Appointment
  - a. The length of time in calendar days between the day an existing patient makes a request for an appointment with a provider/care team and the third available appointment with that provider/care team.
  - b. Data Source: Practice management or scheduling systems
  - c. Rationale/Evidence: This measure is an industry standard of patients' access to care. Under principles of PCMH open access, this should be same day. [81]

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80 Many patients seen at safety net hospitals seek only episodic care and would not avail themselves of a medical home. Eligibility for medical home is determined for each plan, according to unique confluence of patient populations and delivery system structure, using criteria such as 1-2 primary care visits within 12-24 months, frequent utilization of emergency services, and/or identified medical needs such as chronic conditions.

81 Safety Net Medical Home Initiative. Moore LG, Powell J. Enhanced Access Implementation Guide: Providing the Care Patients Need, When They Need It. 1st ed. Burton T, ed. Seattle, WA: Qualis Health and the MacColl Center for Health Care Innovation at the Group Health Research Institute; December 2010.
http://www.safetynetmedicalhome.org/sites/default/files/Implementation-Guide-Enhanced-Access.pdf

I-15. Milestone: Increase the number or percent of medical home patients that are able to identify their usual source of care as being managed in medical homes

I-15.1. Metric: Usual source of care

a. Numerator: Number of medical home patients that are able to identify their medical home as their usual source of care

b. Denominator: Total number of medical home patients

c. Data Source: Patient survey

d. Rationale/Evidence: The medical home should be seen by the patient as the patient's "home base" or usual source of care, and this measures the success of the medical home in providing ongoing, organized care for the patient and educating the patient about medical home services.

I-16. Milestone: Increase number or percent of enrolled patients' scheduled primary care visits that are at their medical home

I-16.1. Metric: Percent of primary care visits at medical home

a. Numerator: Number of enrolled patients' primary care visits with medical home primary care provider/team

b. Denominator: Total number of enrolled patients' primary care visits within the Performing Provider

c. Data Source: Practice management system, EHR, or other documentation as designated by Performing Provider

d. Rationale/Evidence: Patients know the professionals on their care team and establish trusting, ongoing relationships to reinforce continuity of care. Medical home model should enhance continuity.

I-17. Milestone: Medical home provides population health management by identifying and reaching out to patients who need to be brought in for preventive and ongoing care

I-17.1. Metric: Reminders for patient preventive services

a. Numerator: For select specific preventive service (e.g., pneumococcal vaccine for diabetics), the number of patients in the registry needing the preventive service and who have been contacted to come in for service

b. Denominator: Total number of patients in the registry needing the preventive service

c. Data Source: Registry, or other documentation as designated by Performing Provider

d. Rationale/Evidence: Panel manager (or staff on care team) identifies patients who have process or outcome care gaps and contacts them to come in for services. This approach has been used with good effect in state and federal health disparity collaborative. The care team assesses the patient's overall health and co-develops a health care plan with the patient, including health goals, ongoing management, and future visits.

I-17.2. Metric: Number of patients receiving preventive services as indicated by standards of care (e.g., annual wellness exam, vision screening, mammograms, etc.)

a. Numerator: For select specific preventive service, the number of patients in the registry that are up to date on the preventive service.

b. Denominator: Total number of patients in the registry needing the preventive service

c. Data Source: Registry, or other documentation as designated by Performing Provider

d. Rationale/Evidence: Panel manager (or staff on care team) identifies patients who have process or outcome care gaps and contacts them to come in for services. This approach has been used with good effect in state and federal health disparities collaboratives. The care team assesses the patient's overall health and co-develops a health care plan with the patient, including health goals, ongoing management, and future visits.

I-18. Milestone: Obtain medical home recognition by a nationally recognized agency [82](e.g., NCQA, URAC, AAAHC, etc.). The level of medical home recognition will depend on the practice baseline and accrediting agency.

I-18.1. Metric: Medical home recognition/accreditation

a. Numerator: number of sites or clinics receiving recognition/accreditation

b. Denominator: total number of sites or clinics eligible for recognition/accreditation.

c. Data Source: Documentation of recognition/accreditation from nationally recognized agency (e.g., NCQA)

d. Rationale/Evidence: It is important to validate the medical home service being provided by seeking and receiving recognition/accreditation.[83] Some safety net sites that have attained NCQA accreditation "reported that they have become far more sophisticated as a result of the application effort and have invested in quality improvement efforts that might otherwise have gone unrealized".[84]

82 http://www.medicalhomeinfo.org/national/recognition_programs.aspx
83 http://www.safetynetmedicalhome.org/practice-transformation/recognition
84 http://content.healthaffairs.org/content/21/5/284.full.pdf+html

I-19. Milestone: Develop or expand principles of medical home and patient centered care using innovative project option. The following metrics are suggested for use with an innovative project option to enhance/expand medical home but are not required.

I-19.1. Metric: Increase percentage of target population reached.

a. Numerator: Number of individuals of target population reached by the innovative project.

b. Denominator: Number of individuals in the target population.

c. Data Source: Documentation of target population reached, as designated in the project plan.

d. Rationale/Evidence: This metric speaks to the efficacy of the innovative project in reaching it targeted population.

I-19.2. Metric: Increased number of patient centered visits.

a. Total number of visits for reporting period

b. Data Source: Registry, EHR, claims or other Performing Provider source

c. Rationale/Evidence: This measures the increased volume of visits and is a method to assess the ability for the Performing Provider to increase capacity to provide care.

I-19.3. Metric: Documentation of increased number of unique patients that receive education around clinic's adoption of patient centered principles and are empanelled into the medical home. Demonstrate improvement over prior reporting period.

a. Total number of unique patients that receive education about patient centered clinic services and are assigned to the medical home.

b. Data Source: Registry, EHR, claims or other Performing Provider source

c. Rationale/Evidence: Patient education around medical home principles and the clinic's commitment to this model is integral to successful transformation.

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]

b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.

- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

2.2 Expand Chronic Care Management Models[85]

Project Goal:
The goal of this project is to develop and implement chronic disease management interventions that are geared toward improving effective management of chronic conditions and ultimately improving patient clinical indicators, health outcomes and quality, and reducing unnecessary acute and emergency care utilization. Chronic disease management initiatives use population-based approaches to create practical, supportive, evidence-based interactions between patients and providers to improve the management of chronic conditions and identify symptoms earlier, with the goal of preventing complications and managing utilization of acute and emergency care. Program elements may include the ability to identify one or more chronic health conditions or co-occurring chronic health conditions that merit intervention across a patient population, based on a an assessment of patients' risk of developing complications, co-morbidities or utilizing acute or emergency services. These chronic health conditions may include diabetes, congestive heart failure, chronic obstructive pulmonary disease, among others, all of which are prone to co-occurring health conditions and risks.

Project Options:

2.2.1 Redesign the outpatient delivery system to coordinate care for patients with chronic diseases

Required core project components:

a) Design and implement care teams that are tailored to the patient's health care needs, including non-physician health professionals, such as pharmacists doing medication management; case managers providing care outside of the clinic setting via phone, email, and home visits; nutritionists offering culturally and linguistically appropriate education; and health coaches helping patients to navigate the health care system

b) Ensure that patients can access their care teams in person or by phone or email

c) Increase patient engagement, such as through patient education, group visits, self-management support, improved patient-provider communication techniques, and coordination with community resources

d) Implement projects to empower patients to make lifestyle changes to stay healthy and self-manage their chronic conditions

e) Conduct quality improvement for project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, identifying "lessons learned," opportunities to scale all or part of the project to a broader patient population, and identifying key challenges associated with expansion of the project, including special considerations for safety-net populations.

2.2.2 Apply evidence-based care management model to patients identified as having high-risk health care needs

2.2.3 Redesign rehabilitation delivery models for persons with disabilities

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85 Some chronic diseases addressed by chronic care management models in RHP plans may include diabetes, hypertension, heart failure, asthma, post-secondary stroke, community-acquired pneumonia (CAP), HIV/AIDS, and chronic pain.

2.2.4 Develop a continuum of care in the community for persons with serious and persistent mental illness and co-occurring disorders

2.2.5 Develop care management functions that integrate the primary and behavioral health needs of individuals

2.2.6 "Other" project option: Implement other evidence-based project to expand chronic care management models in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project. Milestone I-21 includes suggestions for improvement metrics to use with this innovative project option.

Note: All of the project options in project area 2.2 should include a component to conduct quality improvement for the project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, "lessons learned," opportunities to scale all or part of the project to a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations.

Rationale:

Promoting effective change in provider groups to support evidence-based clinical and quality improvement across a wide variety of health care settings. There are many definitions of "chronic condition", some more expansive than others. We characterize it as any condition that requires ongoing adjustments by the affected person and interactions with the health care system. The most recent data show that more than 145 million people, or almost half of all Americans, live with a chronic condition. That number is projected to increase by more than one percent per year by 2030, resulting in an estimated chronically ill population of 171 million. Almost half of all people with chronic illness have multiple conditions. As a result, many managed care and integrated delivery systems have taken a great interest in correcting the many deficiencies in current management of diseases such as diabetes, heart disease, depression, asthma and others. Those deficiencies include:

- Rushed practitioners not following established practice guidelines
- Lack of care coordination
- Lack of active follow-up to ensure the best outcomes
- Patients inadequately trained to manage their illnesses

Overcoming these deficiencies will require nothing less than a transformation of health care, from a system that is essentially reactive - responding mainly when a person is sick - to one that is proactive and focused on keeping a person as healthy as possible. To speed the transition, Improving Chronic Illness Care created the Chronic Care Model, which summarizes the basic elements for improving care in health systems at the community, organization, practice and patient levels. Evidence on the effectiveness of the Chronic Care Model has recently been summarized. [86]

Process Milestones:

P-1. Milestone: Expand the Chronic Care Model to primary care clinics

P-1.1. Metric: Increase number of primary care clinics using the Chronic Care model

86 http://content.healthaffairs.org/content/28/1/75.full

a. Numerator: Number of primary care clinics using the Chronic Care model
b. Denominator: Total number of primary care clinics
c. Data Source: Documentation of practice management
d. Rationale/Evidence: The Chronic Care Model, developed by Ed Wagner and colleagues at the MacColl Institute, has helped hundreds of providers improve care for people with chronic conditions.[87] Randomized trials of system change interventions include Diabetes Cochrane Collaborative Review and JAMA Re-review, which looked at about 40 studies, mostly randomized trials, with interventions classified as decision support, delivery system design, information systems, or self-management support; 19 of 20 studies included a self-management component that improved care, and all five studies with interventions in all four domains had positive impacts on patients.[88] Also, an example of a meta-analysis of interventions to improve chronic illness looked at 112 studies, most of which were randomized clinical trials (27 asthma, 21 chronic heart failure, 33 depression, 31 diabetes); interventions that contained one or more chronic Care Model elements improved clinical outcomes (RR .75-.82) and processes of care (RR 1.30-1.61).[89]

P-2. Milestone: Train staff in the Chronic Care Model, including the essential components of a delivery system that supports high-quality clinical and chronic disease care
P-2.1. Metric: Increase percent of staff trained

87 Source: IHI website. Please see http://www.ihi.org/IHI/Topics/ChronicConditions/AllConditions/Changes/ for more information.

88 Renders et al, Diabetes Care, 2001; 24:1821 and Bodenheimer, Wagner, Grumbach, JAMA 2002; 288:1910.

89 Tsai AC, Morton SC, Mangione CM, Keeler EB. Am J Manag Care. 2005 Aug;11(8):478-88.

a. Numerator: Number of relevant staff trained in the Chronic Care Model ("relevant" as defined per the Performing Provider)
b. Denominator: Total number of relevant staff
c. Data Source: HR, training program materials
d. Rationale/Evidence: The Chronic Care Model, developed by Ed Wagner and colleagues at the MacColl Institute, has helped hundreds of providers improve care for people with chronic conditions.[90] Randomized trials of system change interventions include Diabetes Cochrane Collaborative Review and JAMA Re-review, which looked at about 40 studies, mostly randomized trials, with interventions classified as decision support, delivery system design, information systems, or self-management support; 19 of 20 studies included a self-management component that improved care, and all five studies with interventions in all four domains had positive impacts on patients.[91] Also, an example of a meta-analysis of interventions to improve chronic illness looked at 112 studies, most of which were randomized clinical trials (27 asthma, 21 chronic heart failure, 33 depression, 31 diabetes); interventions that contained one or more chronic Care Model elements improved clinical outcomes (RR .75-.82) and processes of care (RR 1.30-1.61).[92] Also, it has been shown that "planned care for all" can be more effective than "disease-silo" care. For example, the Cherokee Nation adopted a systems approach to diabetes care in 2002, which included many of the concepts in the Improving Patient Care (IPC) change package, such as patient and population management by registered nurse diabetes care managers; evidence-based guidelines; planned visits; care by a multidisciplinary team; diabetes self-management support and education; use of registries for population management; and data-driven improvement, resulting in improved diabetes care and intermediate outcomes.[93]

P-3. Milestone: Develop a comprehensive care management program

P-3.1. Metric: Documentation of Care management program. Best practices such as the Wagner Chronic Care Model and the Institute of Chronic Illness Care's Assessment Model may be utilized in program development.[94]

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90 Source: IHI website. Please see http://www.ihi.org/IHI/Topics/ChronicConditions/AllConditions/Changes/ for more information.

91 Renders et al, Diabetes Care, 2001; 24:1821 and Bodenheimer, Wagner, Grumbach, JAMA 2002; 288:1910.

92 Tsai AC, Morton SC, Mangione CM, Keeler EB. Am J Manag Care. 2005 Aug. 11(8):478-88.

93 Please see the IHI website for more information: http://www.ihi.org/IHI/Topics/OfficePractices/PlannedCare/ImprovementStories/InnovationsinPlannedCareataCherokeeNationClinic.htm

94 Information on the Wagner Chronic Care Model available at http://www.improvingchroniccare.org/index.php?p=The_Chronic_Care_Model&s=2

a. Data Source: Program materials
b. Rationale/Evidence: Review chronic care management best practices (e.g., Wagner Chronic Care model) and conduct an assessment of the hospital/health system to guide quality improvement efforts and evaluate changes in chronic illness care (e.g., the Institute of Chronic Illness Care's Assessment of Chronic Illness Care—ACIC[95]).

P-3.2. Metric: Increase the number of patients enrolled in a care management program over baseline.
a. Number of patients enrolled in a care management program
b. Data source: Program enrollment records

P-4. Milestone: Formalize multi-disciplinary teams, pursuant to the chronic care model defined by the Wagner Chronic Care Model or similar

P-4.1. Metric: Increase the number of multi-disciplinary teams (e.g., teams may include physicians, mid-level practitioners, dieticians, licensed clinical social workers, psychiatrists, and other providers) or number of clinic sites with formalized teams
a. Number of teams or sites with formalized teams
b. Data Source: TBD by Performing Provider
c. Rationale/Evidence: In meta-analysis to assess the impact on glycemic control of 11 distinct strategies for quality improvement in adults with type 2 diabetes, team changes and case management showed the most robust improvements.[96] Team changes included adding a team member or "shared care," use of multidisciplinary teams in the primary ongoing management of patients, or expansion/revision of professional roles.

P-5. Milestone: Implement a risk-reduction program for patients with diabetes mellitus to target patients identified as at-risk (e.g., an inpatient or peri-operative glycemic control program; if implementing more than one program, may include as two separate milestones). The inpatient glycemic control (example) would be appropriate for hospitals, while the broad based risk-reduction program for DM could be modified for the outpatient setting.

P-5.1. Metric: Increase the number of patients enrolled in risk-reduction program
a. Number of patients enrolled in risk-reduction program
b. Data Source: Program enrollment records

P-6. Milestone: Implement redesign of rehabilitation delivery model that is tailored to care setting. These models may include elements like patient-centered daily interdisciplinary rounds in acute rehabilitation, self-directed task-specific motor practice opportunities in acute rehabilitation setting, therapeutic practice for greater than three hours per day, 5-6 days per week to drive recovery, patient-centered interdisciplinary documentation,

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95 Developed as a practical tool to help teams improve care for chronic illness, the content of the ACIC was derived for specific evidence-based interventions for the six components of the Chronic Care Model. Like the chronic care model, the ACIC addresses the basic elements for improving chronic illness care at the community, organizational, practitioner and patient level.
96 Shojania KG, Rani SR, McDonald KM, Grimshaw JM, et al. Effects of Quality Improvement Strategies for Type 2 Diabetes on Glycemic Control, A Meta-Regression Analysis, JAMA, 296(4), 2006.

peer-delivered wellness programs, and/or home- and community-focused rehabilitation.

P-6.1. Metric: Redesigned Rehabilitation delivery model

a. Documentation of program elements,

b. Data Source: Program materials

P-7. Milestone: Develop disease-specific or multiple chronic condition (MCC) Medical Home (e.g., stroke, diabetes, spina bifida, cystic fibrosis, technology-dependent children, extreme prematurity, intracranial bleed)

P-7.1. Metric: Develop a pilot project to establish a primary care entity for people who have the condition or MCC (for example, for stroke: Establish group clinics for individuals with stroke/Transient Ischemic Attack (TIA));

a. Numerator: Number of individuals with history of this condition or MCC in past 1 year enrolled in primary care clinic.

b. Denominator: Number of individuals with history of this condition or MCC in past year.

c. Data Source: Patient medical records at the pilot clinic.

d. Rationale/Evidence: Clinical basis for selection of specific disease or MCC for medical home management (for example, for stroke secondary stroke prevention, maintaining or improving cognitive function, management of chronic disease, learn self-management strategies; all these strategies will reduce inpatient cost.) A pilot will provide focus for an initial smaller targeted population to start implementing the disease-specific or MCC medical home in a more targeted way.

P-8. Milestone: Pilot pharmacy-driven anticoagulation management project.

P-8.1. Metric: Percent of patients on warfarin or other anticoagulants who have been monitored for at least one month without a face-to-face visit

a. Numerator: Number of patients on warfarin or other anticoagulants who were monitored for at least one month without a face-to-face visit

b. Denominator: Total number of patients on warfarin or other anticoagulants

c. Data source: EHR, Medical records.

d. Rationale/Evidence: Goals: Understand problems of “usual care” and variance in management of anticoagulation; understand how implementation of guidelines, re-engineering care providers and use of technology can effectively implement performance improvement; Understand barriers when implementing performance improvement for anticoagulation.

Evidence: In patient control of warfarin by pharmacy driven protocols for many diagnoses improved outcomes (time to effective anticoagulation); multiple hospital admissions are due to complications of outpatient anticoagulation with warfarin;

Mechanism: Assemble team of Physicians, Pharmacists, QI Nurse, Administrators, and Information Technology specialist coordinated by pharmacy.

P-9. Milestone: Develop program to identify and manage chronic care patients needing further clinical intervention

P-9.1. Metric: Increase the number of patients identified as needing screening test, preventative tests, or other clinical services

a. Numerator: Number of patients identified and subsequently receiving needed tests or other clinical services

b. Denominator: Number of patients identified as needing screening test, preventative tests, or other clinical services

c. Data source: EHR, patient registry

P-10. Milestone: Expand and document interaction types between patient and health care team beyond one-to-one visits to include group visits, telephone visits, and other interaction types

P-10.1. Metric: Increase the number of group visits and/or telephone visits and/or other interaction types

a. Numerator: Number of group visits/telephone visits/other interaction types (please specify type of visit)

b. Data source: EHR, billing records

P-11. Milestone: Develop and implement program to assist patient to better self-manage their chronic conditions

P-11.1. Metric: Increase the number of patients enrolled in a self-management program

a. Numerator: Number of patients enrolled in a self-management program for a given chronic condition

b. Denominator: Number of patients with given chronic condition

c. Data source: EHR, patient registry, class enrollment and attendance records

P-12. Milestone: Develop and implement plan for standing orders (i.e., lab orders for chronic conditions)

P-12.1. Metric: Documentation of plan for standing orders

a. Data source: Computerized system to manage standing orders.

b. Rationale/Evidence: Forms that require handwritten information have higher risk of error, due to faulty memory, careless or mistaken transcription from other documents, and misinterpretation of handwriting. To minimize the risk of such errors, use pre-printed forms for common orders, medication flowsheets, and the medication administration record (MAR).[97]

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97 http://www.ihi.org/knowledge/Pages/Changes/UsePreTypedMedicationRecordsOrdersandFlowsheets.aspx

P-13. Milestone: Develop and implement program for diabetes care managers to support primary care clinics

P-13.1. Metric: diabetes care manager support for primary care clinics

a. Documentation and implementation of plan

b. Data source: Evidence of diabetes management care coordination clinic plan

P-14. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-14.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-14.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.

a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-15. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.

P-15.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.

a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals
b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-16. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.

P-16.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.
a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-16.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.
a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]

P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]
a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
b. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones:

I-17. Milestone: Apply the Chronic Care Model to targeted chronic diseases, which are prevalent locally

I-17.1. Metric: X additional patients receive care under the Chronic Care Model for a chronic disease or for MCC

a. Name the chronic disease or MCC included

b. Data Source: Registry

c. Rationale/Evidence: an example of a meta-analysis of interventions to improve chronic illness looked at 112 studies, most of which were randomized clinical trials (27 asthma, 21 chronic heart failure, 33 depression, 31 diabetes); interventions that contained one or more chronic Care Model elements improved clinical outcomes (RR .75-.82) and processes of care (RR 1.30-1.61).[98]

98 Tsai AC, Morton SC, Mangione CM, Keeler EB. Am J Manag Care. 2005 Aug. 11(8):478-88.

I-18. Milestone: Improve the percentage of patients with self-management goals[99]

I-18.1. Metric: Patients with self-management goals

a. Numerator: The number of patients with the specified chronic condition/MCC in the registry with at least one recorded self-management goal

b. Denominator: Total number of patients with the specified chronic condition/MCC in the registry

c. Data Source: Registry

d. Rationale/Evidence: "Patients with chronic conditions make day-to-day decisions about—self-manage—their illnesses. This reality introduces a new chronic disease paradigm: the patient-professional partnership, involving collaborative care and self-management education. Self-management education complements traditional patient education in supporting patients to live the best possible quality of life with their chronic condition. Whereas traditional patient education offers information and technical skills, self-management education teaches problem-solving skills. A central concept in self-management is self-efficacy—confidence to carry out a behavior necessary to reach a desired goal. Self-efficacy is enhanced when patients succeed in solving patient-identified problems. Evidence from controlled clinical trials suggests that (1) programs teaching self-management skills are more effective than information-only patient education in improving clinical outcomes; (2) in some circumstances, self-management education improves outcomes and can reduce costs for arthritis and probably for adult asthma patients; and (3) in initial studies, a self-management education program bringing together patients with a variety of chronic conditions may improve outcomes and reduce costs. Self-management education for chronic illness may soon become an integral part of high-quality primary care."[100]

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99 Self-management goals help patients with coping mechanisms and quality of life related to chronic disease. These goals are developed by the patient, with the help of his or her care team. The patient's ownership of these goals puts the patient at the center of his or her care, and increases the likelihood of achieving goals because they will be specific to the patient's lifestyle and what he/she believes is possible.

100 Bodenheimer, T., Lorig, K.., Holman, H., Grumbach, K., "Patient Self-management of Chronic Disease in Primary Care," JAMA (May 15, 2008).

I-19. Milestone: Implement disease-specific or MCC Medical Home. (Examples of medication management and other interventions for stroke follow; however, chosen metrics should be for the specific condition and demonstrate how patients have improved under nationally-recognized improvement measures specific to the disease.)

I-19.1. Metric: Use of appropriate medication for specific disease (Example for stroke: Antiplatelet medication for secondary stroke prevention)

a. Numerator: Number of individuals with history/completed stroke and/or Transient Ischemic Attack (TIA) who are on antiplatelet medication and/or have a documented contraindication

b. Denominator: Number of individuals with history/completed stroke and/or TIA

I-19.2. Metric: Monitor clinically appropriate indicator of disease improvement (Example for stroke: Blood pressure control among individuals with history of/a completed stroke and/or TIA)

a. Numerator: Number of individuals with history of/a completed stroke and/or TIA in past year who have BP< 140/90

b. Denominator: Number of individuals with history of/a completed stroke and/or TIA in past year

I-19.3. Metric: Patient engages in disease-appropriate preventive intervention (Example for stroke: Follow recommended exercise regimen)

a. Numerator: Number of individuals with history of stroke/TIA in past year who exercise at least 150 minutes per week

b. Denominator: Number of individuals with history of stroke/TIA in past year

I-20. Milestone: Redesign Rehabilitation Delivery Model

I-20.1. Metric: Maintain or Improve (case-mix adjusted) 3-month Functional Independence Measure (FIM) Follow-up scores

a. Numerator: 3-month FIM follow up scores

b. Denominator: Baseline FIM follow up scores

I-21. Milestone: Improvements in access to care of patients receiving chronic care management services using innovative project option. The following metrics are suggested for use with an innovative project option but are not required.

I-21.1. Metric: Increase percentage of target population reached.

a. Numerator: Number of individuals of target population reached by the chronic care management program.

b. Denominator: Number of individuals in the target population.

c. Data Source: Documentation of target population reached, as designated in the project plan.

d. Rationale/Evidence: This metric speaks to the efficacy of the innovative project in reaching its targeted population.

I-21.2. Metric: Documentation of increased number of unique patients served by innovative program. Demonstrate improvement over prior reporting period.
- a. Total number of unique patients encountered in the clinic for reporting period.
- b. Data Source: Registry, EHR, claims or other Performing Provider source

I-21.3. Metric: Improved clinical outcomes of target population. The clinical outcomes can be either intermediate (e.g. in Diabetes: HbA1c, lipid profile, blood pressure, serum microalbumin) or end result (e.g. mortality, morbidity, functional status, health status, quality of life or patient satisfaction).
- a. Numerator: Average [clinical outcome] (TBD by provider) of patients participating in Navigator program.
- b. Denominator: Average [clinical outcome] (TBD by provider) of all patients.
- c. Data Source: EHR
- d. Rationale: TBD by provider

I-21.4. Metric: Improved compliance with recommended care regimens.
- a. Numerator: % compliance with [recommended care regimen] (TBD by provider) of patients participating in Navigator program.
- b. Denominator: % compliance with [recommended care regimen] (TBD by provider) of all patients.
- c. Data Source: EHR, claims
- d. Rationale: TBD by provider

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]
- a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]
- b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

2.3 Redesign Primary Care

Project Goal:
Increase efficiency and redesign primary care clinics programs to be oriented around the patient so that primary care access and the patient experience can be improved.

Project Options:

2.3.1 Redesign primary care in order to achieve improvements in efficiency, access, continuity of care, and patient experience
Required core project components:

- **a)** Implement the patient-centered scheduling model in primary care clinics
- **b)** Implement patient visit redesign
- **c)** Conduct quality improvement for project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, identifying "lessons learned," opportunities to scale all or part of the project to a broader patient population, and identifying key challenges associated with expansion of the project, including special considerations for safety-net populations.

2.3.2 "Other" project option: Implement other evidence-based project to redesign primary care in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project. Milestone I-18 includes suggestions for improvement metrics to use with this innovative project option.

Note: All of the project options in project area 2.3 should include a component to conduct quality improvement for the project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, "lessons learned," opportunities to scale all or part of the project to a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations.

Rationale:
Primary care in the United States faces serious challenges. Many physician practices struggle to ensure that their patients have prompt access to care, consistently high-quality chronic and preventative services, and adequate coordination of care. This struggle impacts patients who may experience barriers in accessing primary care services secondary to transportation, the lack of an assigned provider, inability to receive appointments in a timely manner and a lack of knowledge about what types of services can be provided in the primary care setting. By enhancing access points, available appointment times, patient awareness of available services and overall primary care capacity, patients and their families will align themselves with the primary care system resulting in improved health access, improved health outcome and reduced costs of services.

Process Milestones:

P-1. Milestone: Establish baseline data for each: patient appointment 'no-show' rates, days to third-next available appointment, and primary care visit cycle times 101

P-1.1. Metric: Baseline patient 'no-show' rates

a. Numerator: Number of patients that did not show for a scheduled appointment (for any reason)

b. Denominator: Number of patients scheduled

c. Data Source: Practice management or scheduling systems

d. Rationale/Evidence: Establishes a benchmark for measuring success of innovation.

P-1.2. Metric: Baseline days to third next available appointment for each clinic and/or department

a. Numerator: The length of time in calendar days between the day a patient makes a request for an appointment with a provider/care team, and the third available appointment with that provider/care team

b. Data Source: Practice management or scheduling systems

c. Rationale/Evidence: Days to third-next available appointment is an industry standard of patients' access to care. The "third next available" appointment is used rather than the "next available" appointment since it is a more sensitive reflection of true appointment availability. For example, an appointment may be open at the time of a request because of a cancellation or other unexpected event. Using the "third next available" appointment eliminates these chance occurrences from the measure of availability.[102]

P-1.3. Metric: Baseline average patient cycle time

a. The time from when the patient enters the clinic or clinical area to when he/she exits in minutes.

b. Data Source: Practice management or scheduling systems

c. Rationale/Evidence: A lower cycle time indicates a more streamlined process with fewer handoffs and delays.

P-2. Milestone: Implement the patient-centered scheduling model in primary care clinics

P-2.1. Metric: Completion of all three phases of the redesign project: (1) Record, document, and examine random patient calls so that staff are able to experience the process of trying to make an appointment from the patient's perspective, (2) Implement open access scheduling in primary care so patients can make same-day or next-day appointments when indicated, and (3) Call patients in advance to confirm their appointments, pre-register patients, update insurance and demographic information, finding out what prescriptions need to be refilled – and if it makes sense, reschedule the appointment if there is a better time for the patient

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101 Please see improvement milestone iv for the metric specifications.

102 http://www.ihi.org/knowledge/Pages/Measures/ThirdNextAvailableAppointment.aspx

a. Numerator: Number of primary care clinics that have fully implemented the model
b. Denominator: Total number of primary care clinics
c. Data Source: Program materials or other Performing Provider sources
d. Rationale/Evidence: Patient Centered Scheduling (PCS) is the proven methodology for improving the ability of patients to see their doctor when they want to—even the same day. PCS is designed to improve patient access, increase continuity of care, decrease the number of patient no-shows and decrease days to third-next-available appointment. Prior to implementation, "secret shopper" calls take place (random patient calls are recorded and documented) and examined so that staff are able to experience the process of trying to make an appointment from the patient's perspective. Patient visits are also mapped from beginning to end to determine how time in the clinic is spent, and to identify any bottlenecks in the visit process. Once these are conducted, the focus turns to reducing no-show rates and time to third next available appointments. One key tactic to reduce no-show rates and wasted time is to do as much pre-work as possible, such as calling patients in advance to confirm their appointments, pre-registering patients, updating insurance and demographic information, finding out what prescriptions need to be refilled—and if it makes sense, rescheduling the appointment if there's a better time for the patient. Doing patient registration and appointment confirmation ahead of time not only minimizes wasted time, but also gives staff the time to prepare and plan for any unforeseen changes, such as cancellations or changes to appointments. Providers piloting the patient-centered scheduling model have seen significant reductions in no-show rates and days to third-next-available appointments, which will be critical progress in order to truly offer patients a patient-centered medical home.

P-3. Milestone: Implement open access scheduling in primary care clinics

P-3.1. Metric: Open access scheduling

a. Numerator: Number of primary care clinics that have fully implemented open access scheduling
b. Denominator: Total number of primary care clinics
c. Data Source: Scheduling materials or other Performing Provider sources
d. Rationale/Evidence: Open access scheduling enables patients to see their doctor when they want to—even the same day, which can improve patient access, increase continuity of care, decrease the number of patient no-shows, and decrease days to third-next-available appointment.

P-4. Milestone: Implement patient visit redesign in primary care clinics

P-4.1. Metric: Completion of all four phases of the redesign project: (1) Establish method to collect and report cycle time at least monthly; (2) Compare cycle time to other potential measures of efficiency; (3) Map patient visits from beginning to end to determine how time in the clinic is spent and to identify any

bottlenecks in the visit process; and (4) Conduct a series of tests on the visit model, debrief thoroughly, and refine the model

a. Numerator: Number of primary care clinics that have fully implemented the model
b. Denominator: Total number of primary care clinics
c. Data Source: Documentation from Performing Provider
d. Rationale/Evidence: to increase efficiency and productivity so that more patients can be seen. Since 1998, the Patient Visit Redesign (PVR) model has been the standard in work process design, drastically improving patient visit times in health care organizations throughout the United States.

P-5. Milestone: Train staff on methods for redesigning clinics to improve efficiency

P-5.1. Metric: Number or proportion of staff trained

a. Numerator: Number of relevant primary care clinic staff trained
b. Denominator: Total number of relevant primary care clinic staff
c. Data Source: HR, training program materials;
d. Rationale/ evidence: Trained staff for clinic redesign can improve clinic efficiency and reduce patient appointment no-shows.

P-5.2. Metric: Percent improvement in staff knowledge on methods of redesigning clinics to improve efficiency. (Calculate pre and post training score on a test of the material included in the training)

a. Denominator: Pre-training score: % of questions answered correctly prior to training
b. Numerator: Post-training score: % of questions answered correctly following training
c. Data Source: Knowledge assessment tool
d. Rationale: Establishes baseline of knowledge pre and post training intervention. Also provides measure of training impact and/or need for curriculum/instructor modifications.

P-6. Milestone: Implement practice management system

P-6.1. Metric: Documentation of practice management system, such as vendor contract

a. Data Source: Documentation on PMS systems, including contractual agreements.
b. Rationale/Evidence: A practice management system is a vital technology tool for establishing the capacity to manage the health care of patient groups or populations, including access to primary care

P-7. Milestone: Establish bilingual patient portal that allows patients to view their health records on their home computer or cell phone, make appointments on line, or contact their physician on-line with a question.

P-7.1. Metric: Increase the percentage of patients registered to the portal system.

a. Numerator: Number of registered patients on portal.
b. Denominator: Total number of patients
c. Data Source: Documentation of establishment and utilization of systems.
d. Rationale: Enhances the patient health care experience by providing self-management health care tools and resources.

P-7.2. Metric: Average number of encounters with the patient portal
a. Numerator: Total number of encounters with the patient portal.
b. Denominator: Total number of patients registered to the portal.
c. Data Source: Portal census reporting and patient population records.
d. Rationale: Provides data that can drive outreach marketing needs as well as input into potential re-design needs of the portal.

P-8. Milestone: Develop a marketing system to encourage patient utilization of the patient portal.

P-8.1. Metric: Documentation of patient portal marketing and education strategy
a. Data Source: Marketing and outreach documentation records.
b. Rationale: Patient awareness and education needs.

P-9. Milestone: Develop/implement a system for protocol driven automatic patient reminders (must select at least one metric):

P-9.1. Metric: Document system and processes to implement
a. Data Source: Protocol documentation.
b. Rationale: The literature suggests that automatic patient reminders can be a successful methodology to increase appointment adherence. Documentation of system design is a critical element for innovation diffusion, spread and sustainability.

P-9.2. Metric: Documentation of automated process
a. Data Source: Automated call log documentation.
b. Rationale: The literature suggests that automatic patient reminders can be a successful methodology to increase appointment adherence. Documentation of system design is a critical element for innovation diffusion, spread and sustainability.

P-10. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-10.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-10.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.
a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-11. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.
P-11.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.
a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals
b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-12. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.
P-12.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.

a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-12.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.
a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]
P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]
a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
b. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones:

I-11. Milestone: Improve patient access to primary care as measured by reducing third next available appointment times in primary care clinics to fewer than 2 calendar days or improving upon baseline rate by 30%.[103]

I-11.1. Metric: Third Next-Available Appointment

a. The length of time in calendar days between the day a patient makes a request for an appointment with a provider/care team, and the third available appointment with that provider/care team.

b. Data Source: Practice management or scheduling systems

c. Rationale/Evidence: This measure is an industry standard of patients' access to care. For example, the IHI definition white paper on whole system measures cites this metric.

I-12. Milestone: Reduce patient appointment no-show rates to X% or less

I-12.1. Metric: No-show rate

a. Number of patients that did not show for a scheduled appointment (for any reason)

b. Denominator: Number of patients scheduled

c. Data Source: Use practice management system to calculate daily for each provider in clinic

d. Rationale/Evidence: A high no-show rate represents unused or underused capacity or an inability to satisfy the patient's request for time and/or day of the appointment.

I-13. Milestone: Identify and provide follow-up contact to patients who have missed appointments, are overdue for care, or are not meeting care management goals

I-13.1. Metric: Follow-up contact rate (the percentage of patients with appointments booked prior to the actual day of clinic who did not show up for their scheduled visit and received a follow-up contact)

a. Numerator: Number of patients who missed an appointment in a medical home session and received a follow-up contact.

b. Denominator: Number of patients who missed an appointment in a medical home session.

c. Data Source: Use practice management system to calculate daily for each provider in clinic

d. Rationale/Evidence: Missed appointments are known to interfere with appropriate care of acute and chronic health conditions and to misspend medical and administrative resources. They represent a major burden on health care systems and costs by reducing the effectiveness of outpatient health care delivery.

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103 http://www.ihi.org/knowledge/Pages/Measures/ThirdNextAvailableAppointment.aspx

I-14. Milestone: Improve the patient experience of the primary care visit by reducing the time a patient waits while in the primary care office – without reducing the time the patient spends with his/her provider, as measured by reducing average visit cycle time[104] for primary care clinics to 30 minutes or 1.5 times the actual time spent with clinician – without reducing the time a patient spends with his/her provider

I-14.1. Metric: Visit cycle time[105]

a. The time from when the patient enters the clinic or clinical area to when he/she exits in minutes.

b. Data Source: Practice management or scheduling systems or another Performing Provider data source

c. Rationale/Evidence: A lower cycle time indicates a more streamlined process with fewer handoffs and delays.

I-15. Milestone: Improve quality of medical team outcomes.

I-15.1. Metric: Quality of Team Care

a. Patient satisfaction score as measured by the CG-CAHPS survey. Performance should stay the same or improve.

b. Data Source: CG-CAHPS documentation

c. Rationale: The purpose of CAHPS is to capture the patients' perspective on the quality of care from the providers of primary care. This information can be used to assess and improve the patient-centeredness of care.

I-16. Milestone: Patient self-enrollment in on-line patient portal for access to their health record and bi-directional communication

I-16.1. Metric: Percent of primary care patients enrolled in on-line program

a. Numerator: Total number of patients enrolled in program.

b. Denominator: Total number of patients.

c. Data Source: Enrollment log documentation.

d. Rationale: Enhances the patient health care experience by providing self-management health care tools and resources.

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104 Cycle time is measured from the time a patient enters to the time a patient exits the clinic. The time being reduced within the cycle is the wait times a patient experiences, while time spent with a provider stays the same or in many cases, increases.
5 Junod Perron et al. BMC Family Practice 2010, 11:79 http://www.biomedcentral.com/1471-2296/11/79
105 http://www.ihi.org/knowledge/Pages/Measures/OfficeVisitCycleTime.aspx

I-17. Milestone: Improve patient satisfaction/experience scores

I-17.1. Metric: Percent improvement of patient satisfaction scores over baseline by domain.[106]

a. Calculated as (re-measurement score – baseline score)/baseline score

b. Data Source: Patient satisfaction/experience survey and/or CMS Medicare Hospital Quality Initiative Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) or CG-CAHPS scores

c. Rationale/Evidence: Improvement in experience scores will be the ultimate measure of success of improvement efforts.

106 http://www.ahrq.gov/cahps/clinician_group/cgsurvey/patientexperiencemeasurescgsurveys.pdf

I-18. Measure: Increase capacity to redesign primary care using innovative project option. The following metrics are suggested for use with an innovative project option to redesign primary care services but are not required.

I-18.1. Metric: Third Next-Available Appointment

a. The length of time in calendar days between the day a patient makes a request for an appointment with a provider/care team, and the third available appointment with that provider/care team. Typically, the rate is an average, measured periodically (weekly or monthly) as an average of the providers in a given clinic. It will be reported for the most recent month. The ultimate improvement target over time would be seven calendar days (lower is better), but depending on the Performing Provider's starting point, that may not be possible within four years.

b. Data Source: Practice management or scheduling systems

c. Rationale/Evidence: This measure is an industry standard of patients' access to care. For example, the IHI definition white paper on whole system measures cites this metric.

I-18.2. Metric: Percent improvement of patient satisfaction scores over baseline by domain.[6]

a. Numerator: Calculated as (re-measurement score – baseline score)/baseline score

b. Data Source: Patient satisfaction/experience survey and/or CMS Medicare Hospital Quality Initiative Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) or CG-CAHPS scores

c. Rationale/Evidence: Improvement in experience scores will be the ultimate measure of success of improvement efforts.

I-18.3. Metric: Increased number of primary care visits.

a. Total number of visits for reporting period

b. Data Source: Registry, EHR, claims or other Performing Provider source

c. Rationale/Evidence: This measures the increased volume of visits and is a method to assess the ability for the Performing Provider to increase capacity to provide care.

I-18.4. Metric: Documentation of increased number of unique patients, or size of patient panels. Demonstrate improvement over prior reporting period.

a. Total number of unique patients encountered in the clinic for reporting period.

b. Data Source: Registry, EHR, claims or other Performing Provider source

c. Rationale/Evidence: This measures the increased volume of visits and is a method to assess the ability for the Performing Provider to increase capacity to provide care.

I-18.5. Metric: Percent improvement of employee experience scores over baseline,

a. Numerator: calculated as (remeasurement score – baseline score)/baseline score.

b. Data Source: Employee satisfaction assessment tool

c. Rationale/Evidence: Baseline and re-measurement calculations will depend on the tool used. An average satisfaction score incorporating all survey questions would be appropriate.

<u>Customizable Improvement Milestone I-X</u>: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]
- I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]
  - a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]
  - b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

2.4 Redesign to Improve Patient Experience

Project Goal:
Improve how the patient experiences the care and the patient's satisfaction with the care provided. The state healthcare transformation is counting on a robust primary care sector to improve quality, reduce costs, and improve patient experience. This will require a redesign of primary care to meet the needs of patients for timely, patient-centered, continuous, and coordinated care to enhance access to care regardless of type of insurance. The overall approach to redesigning patient experience will be centered on cultural change at the organizational level. This will involve the practitioners in a clinic as well as the patients and their families or caregivers. An organizational strategy will be developed so that entities will manage patient experience and create avenues to implement the strategic plan/vision. Providers' performance will be measured, among other factors, by the extent to which patient experience improves systematically.

Patient experience with care will be assessed through focused surveys. The architecture for patient focused surveys should be modeled after the Consumer Assessment of Healthcare Providers and Systems (CAHPS) tool, which includes the following domains: patients are getting timely care, appointments, and information; how well providers communicate with patients; patients' rating of provider; and assessment office staff. [107] The Clinician and Group Consumer Assessment of Health Care Providers and Systems (CG CAHPS) survey[108] can be used to assess patient and caregiver experience of care in outpatient settings while HCAHPS can be employed to measure patient experience in the hospital setting. Certain supplemental modules for the adult survey CG-CAHPS may be used to establish additional outcomes: Health Literacy, Cultural Competence, Health Information Technology, and Patient Centered Medical Home.

These surveys will be mandatory, and will be administered at the end of the medical episode, six weeks after the visit (to avoid recall bias) and six months if no other episode of care intervened.

Project Options:

2.4.1 Implement processes to measure and improve patient experience
Required core project components:

- **a)** Organizational integration and prioritization of patient experience
- **b)** Data and performance measurement will be collected by utilizing patient experience of care measures from the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) in addition to CAHPS and/or other systems and methodologies to measure patient experience;
- **c)** Implementing processes to improve patient's experience in getting through to the clinical practice;
- **d)** Develop a process to certify independent survey vendors that will be capable of administering the patient experience of care survey in accordance with the standardized sampling and survey administration procedures.

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107 https://cahps.ahrq.gov/clinician_group/cgsurvey/patientexperiencemeasurescgsurveys.pdf
108 https://cahps.ahrq.gov/clinician_group/

2.4.2 Implement other evidence based project to improve patient experience in an innovative manner not described above. Note, providers opting to implement an innovative project under this option must propose relevant process metrics and report on the improvement metrics listed under milestone I-X.

2.4.3 Project Option: Increased patient satisfaction
Implement an innovative and evidence based intervention that will lead to improvements in patient satisfaction for providers that have demonstrated need or unsatisfactory performance in this area. This project requires reporting of specific metric(s) as associated with corresponding outcome(s) listed in **Category ,3 Outcome Domain – 6 Patient Satisfaction**. Providers selecting this project option should use process milestone(s) X, improvement milestone(s) Y and the milestone development template at the conclusion of this project area to describe how the proposed milestones relate to the specific intervention goals.

2.4.4 "Other" project option: Implement other evidence-based project to redesign to improve patient experience in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project. Milestone I-20 includes suggestions for improvement metrics to use with this innovative project option.

Note: All of the project options in project area 2.4 should include a component to conduct quality improvement for the project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, "lessons learned," opportunities to scale all or part of the project to a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations.

Rationale:
Over time, implemented projects have the potential to yield improvements in the level of care integration and coordination for patients and ultimately lead to better health and better patient experience of care.

Process Milestones:

P-1. Milestone: Appoint an executive accountable for experience performance or create a percentage of time in existing executive position for experience performance

P-1.1. Metric: Documentation of an executive assigned responsibility experience performance Data Source: Org Chart or job description (if percentage of time)

a. Rationale/Evidence: The organizational culture that creates positive patient experience must be driven from the very top of the organization.[109] Depending upon the organization, one executive could be accountable for both patient and employee experience, or two separate executives could be appointed.

P-2. Milestone: Write and disseminate a patient/family experience strategic plan

P-2.1. Metric: Submission of a strategic plan and documentation of the dissemination of that plan throughout the organization

a. Data Source: Internal organizational communications, experience strategic plan

b. Rationale/Evidence: A strategic plan is seen by experts in the field as an essential foundation for any organizational work toward improving patient experience. Employee experience could be integrated into the patient experience strategic plan, or a separate plan could be created.

P-3. Milestone: Establish a steering committee comprised of organizational leaders, employees and patients/families to implement and coordinate improvements in patient and/or employee experience . Steering committee should meet at least twice a month.

P-3.1. Metric: Documentation of committee proceedings and list of committee members

a. Data Source: Meeting minutes, agendas, participant lists, and/or list of steering committee members

b. Rationale/Evidence: A high-level organizational committee is essential in driving patient experience improvement organization-wide. Employee experience can be driven by the same committee, or a separate committee could be established.

P-4. Milestone: Integrate patient experience into employee training

P-4.1. Metric: Percent of new employees who received patient experience training as part of their new employee orientation

a. Numerator: Number of new employees receiving patient experience training

b. Denominator: Total number of new employees

c. Data Source: Human Resources records

d. Rationale/Evidence: Integrating patient experience into all organizational learning is seen as a best practice in the field, as it prompts staff/employees to consider patient experience in all parts of their day-to-day job duties. It is recommended that employee experience also be included in organizational training.

P-5. Milestone: Integrate patient and/or employee experience into management performance measures

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109 For example, see materials by Picker Institute, the Institute for Patient and Family Centered Care, as well as national leaders such as Dale Schaller, Bridget Duffy and Anthony DeGioia.

P-5.1. Metric: Documentation of specific patient and/or employee experience objectives into management work plans and measures of performance, such as internal quality controls or performance dashboard.

a. Numerator: : 0 if no documentation is provided, 1 if documentation is provided
b. NA
c. Data Source: Performance report, reporting policies and procedures or division/unit/department work plans, documentation of incentive in employee performance plan
d. Rationale/Evidence: Accountability for experience performance must be spread throughout the organization. Having a direct tie between employee performance and patient satisfaction is an incentive for all client-facing staff to prioritize the patient experience. Just as the executive in charge of the experience agenda is accountable to the CEO, similar accountability structure should be in place at all levels of management and operations.

P-6. Milestone: Include specific patient and/or employee experience objectives into employee job descriptions and work plans. Hold employees accountable for meeting them.

P-6.1. Metric% employees who have specific patient and/or employee experience objectives in their job description and/or workplan

a. Numerator: Number of employees who have specific patient and/or employee experience objectives in their job descriptions and/or workplan
b. Denominator: Total number of employees
c. Data Source: Job descriptions, staff performance metrics
d. Rationale: Each employee should have clear performance expectations as related to patient experience.

P-7. Milestone: Assess the organizational baseline for measuring patient/family and/or employee experience and utilizing results in quality improvement

P-7.1. Metric: Submission of an assessment that includes answering questions such as: What areas of the organization have regular measures (e.g., inpatient vs. clinics vs. EDs); What methods are used to obtain experience data (e.g., mailed surveys vs. phone); What are the scores/findings for the organization as a whole?; What are the scores/findings by service line, location, and patient demographics?; What are the response rates by service line, location, and patient demographics?; and/or How are data stored, analyzed, fed back to the "sharp end" and used in quality improvement?

a. Submission of assessment
b. Data Source: Assessment
c. Rationale/Evidence: It is important to clearly establish the organizational baseline as the foundation for improvement work.

P-8. Milestone: Develop new methods of inquiry into patient and/or employee satisfaction, or improve the existing ones, to achieve greater quality and consistency of data

P-8.1. Metric: This will vary from Performing Provider to Performing Provider, based on the gaps identified in the assessment (previous bullet) and the assignment of improvement priorities by organization's leaders. Examples include: Develop a new patient experience survey tool or revise and improve the current ones; Translate and/or simplify written surveys to make them more user-friendly to LEP and low-literacy populations; Implement phone surveys and/or focus groups as alternative methodologies to written surveys; Conduct care experience flow mapping;[110] implement a survey of employee experience[111]; Roll out a pilot of real-time electronic methodology for capturing patients' feedback during the process of care;[112] and/or implement another innovative method for obtaining patient and/or employee experience information

a. Documentation of inquiry materials
b. Data Source: Depends upon methodology selected
c. Rationale/Evidence: Written mail-in surveys are most commonly used in obtaining patient experience information, yet this methodology often yields small numbers of responses given the socioeconomic circumstances of certain patient populations. Therefore, it is important to test other methodologies that may be more applicable and convenient for the Performing Provider's patient populations.

P-9. Milestone: Develop a plan to roll out a regular inquiry into patient experience in organizations currently without one, or for areas with one, in a new area of the organization, which currently does not collect patient experience information, for example, primary care clinics

P-9.1. Metric: Submission of a patient experience implementation/expansion plan

a. Data Source: Plan
b. Rationale/Evidence: Patient experience information is currently not obtained from the organization or from all parts of the organization, and it should be. For example, a Performing Provider that does not currently collect patient experience data in its outpatient settings may want to start implementing this by adopting a validated survey and administering it at regular intervals.

P-10. Milestone: Administer regular inquiry into patient experience in the new organization or organizational area using methodologies such as: Written surveys, Phone interviews; Focus groups; Care experience flow mapping;[113] Real-time electronic methodology for

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110 For example, implement "Patient Shadowing" - a method of viewing all care from the eyes of the patients and families, available here http://www.innovationctr.org/toolbox.htm
111 For example, see NRC Picker Employee Experience Surveys, available here http://nrcpicker.com/default2.aspx?DN=1671,3,1,Documents
112 For example, TruthPoint, available here http://www.truth-point.com/truthpoint
113 For example, implement "Patient Shadowing" - a method of viewing all care from the eyes of the patients and families, available here http://www.innovationctr.org/toolbox.htm

capturing patients' feedback during the process of care;[114] and/or another innovative method for obtaining patient experience information

P-10.1. Metric: % of active patients who were included in an inquiry

a. Numerator: Number of patient inquiries made
b. Denominator: Number of patients visits during the measurement time period
c. Data Source: TBD by Performing Provider, depending on the methodology selected for patient experience inquiry
d. Rationale/Evidence: Patient experience information should be obtained from new area(s) of the organization or all parts of the organization (where project was expansion).

P-11. Milestone: Orchestrate improvement work on identified experience targets (targets could include, for example, better understanding of HCAHPS results or results of other measures; improved caregiver communication; better discharge planning; improved cleanliness, noise levels and/or dining experience; better ambulatory experience; improved employee experience, etc.). Workgroups should be formed under the steering committee to work on experience targets. Detailed implementation plans should be created for each workgroup.

P-11.1. Metric: Submission of implementation plan.

a. Data Source: Implementation plans
b. Rationale/Evidence:
c. The implementation plan should ensure the adherence of the experience target, the workgroups and the workplan to the previously identified principles

P-12. Milestone: Implement and sustain at least one organizational strategy per year aimed at improving patient, family, and/or employee experience. These strategies must involve patients/families as partners in organizational quality improvement, development, and/or governance;[115] . Examples of these strategies include enhancing nurse-nurse and nurse-patient/family communication;[116] rolling out a campaign of "always events" – those aspects of the patient and family experience that should always occur when patients interact with healthcare professionals and the delivery system;[117] establishing a patient care navigation program (see separate entry in further text), and/or regularly presenting "Patient/Family Testimonials" at key organizational management meetings in order to connect leaders with the real-life experiences of the patients and their families; and/or adopting management practices that result in improved employee experience[118]

P-12.1. Metric Number of experience improvement initiatives conducted

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114 For example, TruthPoint, available here http://www.truth-point.com/truthpoint

115 For example, include patients/families into organizational efficiency projects such as LEAN, or develop an advisory council of patients and families

116 For example, "Nurse Knowledge Exchange", available here http://www.innovations.ahrq.gov/content.aspx?id=1803

117 More information available here http://alwaysevents.pickerinstitute.org/

118 For example, Evidence Based Leadership by Studer Group, available here http://www.studergroup.com/dotCMS/knowledgeAssetDetail?inode=411208

a. Number of experience improvement initiatives conducted
b. Data Source: Documentation of strategy(ies) implemented
c. Rationale/Evidence: Developing and implementing strategies to reach organization's experience targets is at the core of improvement work in this area.

P-13. Milestone: Perform a mid-course evaluation of the results of improvement projects / Make necessary adjustments and continue with implementation

P-13.1. Metric: Submission of evaluation results.

a. Numerator: 0 if evaluation results are not submitted , 1 if evaluation results are submitted
b. Data Source: Evaluation write-up
c. Rationale/Evidence: It is an integral part of performance improvement to periodically review success of the efforts.

P-14. Milestone: Develop, implement, and/or enhance a patient experience survey tool

P-14.1. Metric: Submission of tool

a. Numerator: 0 if tool is not submitted, 1 if tool is submitted
b. Data Source: Survey tool

P-15. Milestone: Develop a training program on patient experience

P-15.1. Metric: Submission of training program materials

P-16. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-16.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-16.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.

a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-17. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.

P-17.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.

a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals

b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-18. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.

P-18.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.

a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-18.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.

a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]
P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]
a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
b. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones:

I-16. Milestone: Improve patient satisfaction/experience scores;

I-16.1. Metric: Percent improvement of patient satisfaction scores for a specific tool over baseline

a. Numerator: Calculated as (re-measurement score – baseline score)/baseline score

b. Data Source: Patient satisfaction/experience surveys such as Clinician and Group Consumer Assessment of Health Care Providers and Systems (CG CAHPS) and/or Hospital Quality Initiative Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores.

c. Rationale/Evidence: Improvement in experience scores will be the ultimate measure of success of improvement efforts.

I-16.2. Metric: Percent improvement over baseline of patient satisfaction scores for a subset of measures that the provider targets for improvement in a specific tool. Certain supplemental modules for the adult CG-CAHPS survey will be used to establish if patients: (1) are getting timely care, appointments, and information; (2) how well their doctors communicate; (3) patient's rating of doctor access to specialist; (4) patient's involvement in shared decision making, and (5) patient's overall health status/functional status.

a. Numerator: Calculated as (remeasurement score – baseline score)/baseline score

b. Data Source: Patient satisfaction/experience survey and/or -Hospital Quality Initiative Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) or CG-CAHPS scores

c. Rationale/Evidence: Improvement in experience scores will be the ultimate measure of success of improvement efforts.

I-16.3. Metric: Demonstrate an increase in performance relative to other providers in the same RHP, comparative with similar organization provider in other RHPs, and in contrast with state benchmark.

a. Numerator: Calculated as (remeasurement score – baseline score)/baseline score

b. Data Source: Patient satisfaction/experience survey such as CG-CAHPS scores, one of CG-CAHPS supplemental modules or HCAHPS.

c. Rationale/Evidence: Improvement in experience scores as measured by moving from a lower percentile of patient experience score (i.e. top 25th) to a higher percentile (top 20th).

I-17. Milestone: Improve employee experience scores on a consistently administered measure of employee experience

I-17.1. Metric: Percent improvement of employee experience scores over baseline,

a. Numerator: calculated as (remeasurement score – baseline score)/baseline score.

b. Rationale/Evidence: Baseline and re-measurement calculations will depend on the tool used. An average satisfaction score incorporating all survey questions would be appropriate.

I-18. Milestone: Develop regular organizational display(s) of patient and/or employee experience data (e.g., via a dashboard on the internal Web) and provide updates to employees on the efforts the organization is undertaking to improve the experience of its patients and their families

I-18.1. Metric: Number of organization-wide displays (can be physical or virtual) about the organization's performance in the area of patient/family experience per year; and at least one example of internal CEO communication on the experience improvement work.

a. Data Source: Display and internal communication

b. Rationale/Evidence: Keeping the workforce informed on the progress of improvement efforts is key to developing an organization-wide ownership of the efforts.

I-19. Milestone: Make patient and/or employee experience data available externally (e.g., via a dashboard on the external website) and provide updates to the general public on the efforts the organization is undertaking to improve the experience of its patients and their families

I-19.1. Metric: Number of external communications aimed at the general public's understanding of the organization's results and improvement efforts in the area of patient and/or employee experience.

a. Data Source: External communication

b. Rationale/Evidence: As a community asset, the organization is ultimately accountable to the community for its results, which includes the experience of patients and/or employees.

I-20. Milestone: Redesign to improve patient experience using innovative project option. The following metrics are suggested for use with an innovative project option but are not required.

I-20.1. Metric: Percent improvement of patient satisfaction scores over baseline

a. Numerator: Calculated as (re-measurement score – baseline score)/baseline score

b. Data Source: Patient satisfaction/experience survey and/or Hospital Quality Initiative Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) or CG-CAHPS scores

c. Rationale/Evidence: Improvement in experience scores will be the ultimate measure of success of improvement efforts.

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]

b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

2.5 Redesign for Cost Containment

Project Goal:
Improve cost-effectiveness of care through improved care delivery for individuals, families, employers, and the government. Measures that provide insights both into improved opportunities for health care delivery and health care cost-effectiveness are an area of particular focus in the TX-DSRIP. Many of the projects include a specific focus on improving population health inside and outside of the walls of the hospital therefore, it will be important to examine measures that develop the capability to test methodologies for measuring cost containment. These methodologies may be subsequently applied to other projects or efforts so that the ability to measure the efficacy of these initiatives is in place, so integrated care models that use data-based cost and quality measures can be developed.

Project Options:

2.5.1 Develop an integrated care model with outcome-based payments

Required core project components:

a) Implement cost-accounting systems to measure intervention impacts
b) Establish a method to measure cost containment
c) Establish a baseline for cost
d) Measure cost containment

2.5.2 Implement other evidence based project to redesign for cost containment in an innovative manner not described above. Note, providers opting to implement an innovative project under this option must propose relevant process metrics and report on the improvement metrics listed under milestone I-11.

2.5.3 Project Option: Cost Savings

Implement an innovative and evidence based intervention that will lead to **cost savings** for providers that have demonstrated need or unsatisfactory performance in this area. This project requires reporting of specific metric(s) as associated with corresponding outcome(s) listed in **Category 3, Outcome Domain – 5 Cost of Care** [119]. Providers selecting this project option should use process milestone(s) X, improvement milestone(s) Y and the milestone development template at the conclusion of this project area to describe how the proposed milestones relate to the specific intervention goals.

2.5.4 "Other" project option: Implement other evidence-based project to will impact cost efficiency in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project. Milestone I-11 includes suggestions for improvement metrics to use with this innovative project option.

Note: All of the project options in project area 2.5 should include a component to conduct quality improvement for the project using methods such as rapid cycle improvement. Activities

119 Category 3 Outcome Measures document

may include, but are not limited to, identifying project impacts, "lessons learned," opportunities to scale all or part of the project to a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations.

Rationale:
Health care spending for a given population might be roughly defined as a function of five basic factors[120]:

- Population needs or morbidity,
- Access to services,
- Propensity to seek services,
- Volume, nature, or intensity of services supplied or ordered, and
- Unit cost or price of services.

For the purpose of this project area, "cost containment" will be defined as any set of policies or measures intended to affect any one or more of these factors.

Process Milestones:

P-1. Milestone: Develop/identify a cost-accounting methodology to quantify the financial impact of quality and efficiency improvement interventions

P-1.1. Metric: Cost-accounting methodology/metric

a. Documentation of the methodology and metric (e.g., average cost per case for each hospital bed day for chosen specific clinical conditions; average annual cost of hospitalization for chosen specific primary diagnoses clinical conditions; average cost per case for each bed day for patients hospitalized for chosen specific primary diagnoses clinical conditions)

b. Data Source: Cost-accounting system or another administrative, financial or clinical data set

c. Rationale/Evidence: An accurate cost-accounting methodology/metric is a necessary tool for a Performing Provider to gauge the impact of quality and efficiency improvement interventions on the cost per unit of service for the delivery component the Performing Provider is trying to improve.

P-2. Milestone: Establish a baseline for cost

P-2.1. Metric: Establish a baseline for cost

a. Submission of baseline data

b. Data Source: Cost-accounting system or another administrative, financial, or clinical data set

c. Rationale/Evidence: An accurate baseline for cost per unit of service must be established in order for a Performing Provider to effectively measure its progress towards lowering costs.

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120 http://www.policyarchive.org/handle/10207/bitstreams/21904.pdf

P-3. Milestone: Implement the cost-accounting methodology and related systems to measure intervention impacts

P-3.1. Metric: Cost-accounting system

a. Documentation of adoption, installation, upgrade and/or interface of technology, and/or implementation of system using existing technology

b. Data Source: Cost-accounting system

c. Rationale/Evidence: Interventions require the investment of numerous resources at many levels of the delivery system. A cost-accounting system provides the system with the necessary tool to gauge the financial return on investment of intervention(s).

P-4. Milestone: Conduct cost analysis

P-4.1. Metric: Cost analysis plan or results

a. Submission of cost analysis plan or results

b. Data source: program plan and cost analysis report

c. Rationale/Evidence: The primary types of cost analysis include the following[121]:

- Cost of Illness Analysis: economic impact of illness/condition, including treatment costs.
- Cost Minimization Analysis: least costly among alternatives that produce equivalent outcomes.
- Cost Effectiveness Analysis (CEA): costs in monetary units, outcomes in quantitative non-monetary units, e.g., reduced mortality, morbidity; life-years saved; ratio is calculated.
- Cost Consequence Analysis: form of CEA, but without aggregating or weighting across costs or outcomes; ratio is not calculated.
- Cost Utility Analysis: form of CEA, with outcomes in terms of utility or quality of life, e.g., quality-adjusted life-years (QALYs); ratio is calculated.
- Cost Benefit Analysis: costs and outcomes in monetary units, both of which are quantified in common monetary units; ratio or difference is calculated.

P-5. Milestone: Train Finance staff on costing methodologies and define, develop, and document methodologies with departments for allocation of costs to specific services.

P-5.1. Metric: Staff trainings and department specific methodologies

121 http://www.nlm.nih.gov/nichsr/hta101/ta10106.html

a. Submission of trainings and department documents
b. Data Source: Training materials, meeting minutes, cost-accounting system or another administrative, financial, or clinical data set.
c. Rationale/Evidence: An accurate cost-accounting methodology/metric is a necessary tool for a Performing Provider to gauge the impact of quality and efficiency improvement interventions on the cost per unit of service for the delivery component the Performing Provider is trying to improve.

P-6. Milestones: Develop metrics and data sources for developing an integrated care model with outcome-based payments, to be determined in conjunction with CMS

P-6.1. Metric: TBD by Performing Provider
a. Data Source: TBD by Performing Provider
b. Rationale/Evidence: TBD by Performing Provider

P-7. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-7.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.
a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-7.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.
a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-8. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim

measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.

P-8.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.

a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals

b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-9. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.

P-9.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.

a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-9.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.

a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]

P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]

c. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
d. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones:

I-7. Milestone: Measure cost containment by re-measuring healthcare costs of an intervention and compare to baseline to gauge improvements in cost.

I-7.1. Metric: TBD by Performing Provider
a. Numerator: TBD by Performing Provider
b. Denominator: TBD by Performing Provider
c. Data Source: TBD by Performing Provider
d. Rationale/Evidence: By measuring variation in clinical practices, the cost savings of different interventions can be determined. Milestones: Develop metrics and data for developing an integrated care model with outcome-based payments, to be determined in conjunction with CMS. Cost-of-care is presently measured in one of two ways: per-capita measurement and per-episode measurement.

I-7.2. Metric: TBD by Performing Provider
a. Numerator: TBD by Performing Provider
b. Denominator: TBD by Performing Provider
c. Data Source: TBD by Performing Provider
d. Rationale/Evidence: There is no existing methodology for measuring cost containment in the care delivery system where causal, direct impacts can be established, likely due to the multitude of factors and variables. This will be an innovative place to test and perhaps identify one.

I-8. Milestone: Improved cost savings

I-8.1. Metric: Demonstrate cost savings in care delivery
a. Type of analysis to be determined by provider from the following list:
b. Cost of Illness Analysis, Cost Minimization Analysis, Cost Effectiveness Analysis (CEA), Cost Consequence Analysis, Cost Utility Analysis, Cost Benefit Analysis
c. Data source: TBD by provider as appropriate for analysis type
d. Rationale/evidence: TBD by provider

I-9. Milestone: Per capita costs[122] Per-capita measurement involves capturing all of the health care costs for a given population.

I-9.1. Metric: Total cost per member of the population per month

a. Numerator: total cost

b. Denominator: total population

c. Data source: provider and regional data; census

d. Rationale: As health care costs rise – regulators, policymakers and industry leaders are increasingly interested in developing accurate ways to measure and, ultimately to try to reduce health care costs for individuals, as well as society. Developing cost-of-care measures that can help those who get, give and pay for care understand how different providers use resources and compare them to national benchmarks was one of the TX HHSC DSRIP project's goals.

I-9.2. Metric: Hospital and ED utilization rates

I-10. Milestone: Per episode cost of care[123] measurement quantifies the services involved in the diagnosis, management and treatment of specific clinical conditions. Episode-of-care measures can be developed for the full range of acute and chronic conditions, including diabetes, congestive heart failure, acute myocardial infarction, asthma, low back pain and many others.

I-10.1. Metric:

a. Numerator: total cost for episode of care

b. Denominator: total number of episodes in one month

c. Data source: EHR; provider and regional data;

d. Rationale: As health care costs rise – regulators, policymakers and industry leaders are increasingly interested in developing accurate ways to measure and, ultimately to try to reduce health care costs for individuals, as well as society. Developing cost-of-care measures that can help those who get, give and pay for care understand how different providers use resources and compare them to national benchmarks was one of the TX HHSC DSRIP project's goals.

I-11. Milestone: Improvements in cost containment using innovative project option.

I-11.1. Metric: Total cost per member of the population per month (see above)

I-11.2. Metric: Hospital and ED utilization rates per episode cost of care (see above).

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

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122 http://www.ihi.org/offerings/Initiatives/TripleAim/Pages/MeasuresResults.aspx

123 http://www.healthqualityalliance.org/userfiles/COC%20draft%20080410.pdf

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]

b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

2.6 Implement Evidence-based Health Promotion Programs

Project Goal:
Implement innovative evidence based health promotion strategies such as use of community health workers, innovations in social media and messaging for targeted populations.

Project Options:

2.6.1 Engage in population-based campaigns or programs to promote healthy lifestyles using evidence-based methodologies including social media and text messaging in an identified population.

2.6.2 Establish self-management programs and wellness using evidence-based designs.

2.6.3 Engage community health workers in an evidence-based program to increase health literacy of a targeted population.

2.6.4 "Other" project option: Implement other evidence-based project to implement evidence-based health promotion programs in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project. Milestone I-8 includes suggestions for improvement metrics to use with this innovative project option.

Note: All of the project options in project area 2.6 should include a component to conduct quality improvement for the project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, "lessons learned," opportunities to scale all or part of the project to a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations.

Note: All of the project options in 2.6 should include a component to conduct quality improvement for project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, identifying "lessons learned," opportunities to scale all or part of the project to a broader patient population, and identifying key challenges associated with expansion of the project, including special considerations for safety-net populations.

Rationale:
The current prevention and treatment system is an unconnected, silo-based approach, which reduces the effectiveness and increases the cost of health care. [1] As the US health care system strives to deliver better health, improved care and lower costs, the potential exists for innovative evidenced based health promotion strategies to further these goals.

Delivery Mechanisms: Community health workers can increase access to care and facilitate appropriate use of health resources by providing outreach and cultural linkages between communities and delivery systems; reduce costs by providing health education, screening, detection, and basic emergency care; and improve quality by contributing to patient-provider communication, continuity of care, and consumer protection. Information sharing, program support, program evaluation, and continuing education are needed to expand the use of community health workers and better integrate them into the health care delivery system.

Self-Management education complements traditional patient education in supporting patients to live the best possible quality of life with their chronic condition. Whereas traditional patient education offers information and technical skills, self-management education teaches problem-solving skills. A central concept in self-management is self-efficacy—confidence to carry out a behavior necessary to reach a desired goal. Self-efficacy is enhanced when patients succeed in solving patient-identified problems. Evidence from controlled clinical trials suggests that[124] (1) programs teaching self-management skills are more effective than information-only patient education in improving clinical outcomes; (2) in some circumstances, self-management education improves outcomes and can reduce costs for arthritis and probably for adult asthma patients[125]; and (3) in initial studies, a self-management education program bringing together patients with a variety of chronic conditions may improve outcomes and reduce costs.[126]

Process Milestones:
Define evidence-based practices as the conscientious and judicious use of current best evidence in conjunction with clinical expertise and patient values to guide health care decisions

- P-1. Milestone: Conduct an assessment of health promotion programs that involve community health workers at local and regional level.
  - P-1.1. Metric: Document regional assessment
    - a. Data Source: Performing Provider assessment and summary of findings
    - b. Rationale/Evidence: The importance of this milestone is to identify, support and compliment already existing resources in the community for health promotion programs.

- P-2. Development of evidence-based projects for targeted population based on distilling the needs assessment and determining priority of interventions for the community
  - P-2.1. Metric: Document innovational strategy and plan.
    - a. Data Source: Performing Provider evidence of innovational plan
    - b. Rationale/Evidence: Documentation of innovational strategy and plan.

- P-3. Milestone: Implement, document and test an evidence-based innovative project for targeted population
  - P-3.1. Metric: Document implementation strategy and testing outcomes.

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124 1Thorpe, K, The Affordable Care Act lays the groundwork for a national diabetes prevention and treatment strategy. Health Aff January 2012 vol. 31 no. 1 61-66
125 2A Witmer, S D Seifer, L Finocchio, J Leslie, and E H O'Neil. Community health workers: integral members of the health care work force. American Journal of Public Health August 1995: Vol. 85, No. 8_Pt_1, pp. 1055-1058. doi: 10.2105/AJPH.85.8_Pt_1.1055
126 Bodenheimer T, Lorig K, Holman H, Grumbach K. Patient Self-management of Chronic Disease in Primary Care. JAMA. 2002; 288(19):2469-2475.

a. Data Source: Performing Provider contract or other documentation of implementation TBD by Performing Provider.
b. Rationale/Evidence: Documentation of implementation strategy and testing outcomes.

P-4. Milestone: Execution of a learning and diffusion strategy for testing, spread and sustainability of best practices and lessons learned.

P-4.1. Metric: Document learning and diffusion strategic plan

a. Date Source: Performing Provider contract or other documentation of implementation TBD by Performing Provider.
b. Rationale/Evidence: Documentation of learning and diffusion strategic plan and actions.

P-5. Milestone: Execution of evaluation process for project innovation.

P-5.1. Metric: Document evaluative process, tools and analytics.

a. Data Source: Performing Provider contract or other documentation of implementation TBD by Performing Provider
b. Rationale/Evidence: Documentation of evaluation process, tools and analytics.

P-6. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-6.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-6.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.

a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-7. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.

P-7.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.

a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals

b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-8. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.

P-8.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.

a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-8.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.

a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]
P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]
a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
b. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones:

I-6. Milestone: Identify X number or percent of patients in defined population receiving innovative intervention consistent with evidence-based model.
I-6.1. Metric: TBD by Performing Provider based on measure described above
a. Numerator: Total number of patients in defined population who received innovative intervention.
b. Denominator: Total number of patients in defined population.
c. Data Source: Patient records
d. Rationale/Evidence: To test innovative intervention model variables (better health, improved care and lower costs).

I-7. Milestone: Identify innovation impact on target intervention by using NCQA Supplemental items for CAHPS® 4.0 Adult Questionnaire (CAHPS 4.0H)

I-7.1. Metric: Must be supported by practice-approved measures TBD by Performing Provider. This supplemental item was developed jointly by NCQA and the AHRQ-sponsored CAHPS Consortium and is intended for use with the CAHPS 4.0 Health Plan survey. This measure provides information on the experiences of Medicaid health plan members with the organization. Results summarize member experiences through composites and question summary rates. In addition to the 4 core composites from the CAHPS 4.0 Health Plan survey and two composites for commercial populations only, the HEDIS supplemental set includes one composite score and two item-specific summary rates. One of the item-specific rate measures the impact of Health Promotion and Education.

a. Numerator: Health Promotion and Education (Percentage of members who reported "Always"):
Q8: In the last 6 months, how often did you and a doctor or other health provider talk about specific things you could do to prevent illness?[127]

b. Denominator: Members 18 years and older as of December 31 of the measurement year.
Medicaid: Members must be enrolled the last six months of the measurement year, and be currently enrolled at the time the survey is completed.

c. Data Source: TBD by Performing Provider

I-8. Milestone: Increase access to health promotion programs and activities using innovative project option. The following metrics are suggested for use with an innovative project option to increase access to evidence-based health promotion programs but are not required.

I-8.1. Metric: Increase percentage of target population reached.

a. Numerator: Number of individuals of target population reached by the innovative project.

b. Denominator: Number of individuals in the target population.

c. Data Source: Documentation of target population reached, as designated in the project plan.

d. Rationale/Evidence: This metric speaks to the efficacy of the innovative project in reaching it targeted population.

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

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127 HEDIS 2011 Volume 3: Specifications for Survey Measures. NCQA 2011.
https://www.cahps.ahrq.gov/CAHPSkit/files/1157a_engadultsupp_40.pdf Agency for Healthcare Research and Quality (AHRQ). 2010. CAHPS Health plan Survey and Reporting Kits 2008. https://www.cahps.ahrq.gov/cahpskit/Healthplan/HPChooseQx2.asp

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]

b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

2.7 Implement Evidence-based Disease Prevention Programs

Project Goal:
Implement innovative evidence-based strategies in disease prevention areas including the following: diabetes, obesity, tobacco use, prenatal care, birth spacing, and health screenings.

Project Options:

2.7.1 Implement innovative evidence-based strategies to increase appropriate use of technology and testing for targeted populations (e.g., mammography screens, colonoscopies, prenatal alcohol use, etc.)

2.7.2 Implement innovative evidence-based strategies to reduce tobacco use.

2.7.3 Implement innovative evidence-based strategies to increase early enrollment in prenatal care.

2.7.4 Implement innovative evidence-based strategies to reduce low birth weight and preterm birth.

2.7.5 Implement innovative evidence-based strategies to reduce and prevent obesity in children and adolescents.

2.7.6 "Other" project option: Implement other evidence-based project to implement evidence-based disease prevention programs in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project. Milestone I-7 includes suggestions for improvement metrics to use with this innovative project option.

Note: All of the project options in project area 2.7 should include a component to conduct quality improvement for the project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, "lessons learned," opportunities to scale all or part of the project to a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations.

Rationale:
Disease management emphasizes prevention of disease-related exacerbations and complications using evidence-based guidelines and patient empowerment tools. It can help manage and improve the health status of a defined patient population over the entire course of a disease.[1]

By concentrating on the causes of chronic disease, the community moves from a focus on sickness and disease to one based on wellness and prevention. The National Prevention Council strategy for Disease Prevention focuses on four areas: building healthy and safe community environments, expanding quality preventive services in clinical and community settings, helping people make healthy choices, and eliminating health disparities. To achieve these aims, the strategy identifies seven evidence-based recommendations that are likely to reduce the leading causes of preventable death and major illness, including tobacco-free living, drug- and excessive alcohol-use prevention, healthy eating, active living, injury and violence-free living, reproductive and sexual health, and mental and emotional well-being.[2]
Delivery Mechanisms: (note this list is not inclusive of all delivery mechanisms)

- Establish and use patient registry systems to enhance the provision of patient follow-up, screenings for related risk factors and to track patient improvement.
- Establish and implement clinical practice guidelines.
- Adopt the Chronic Care Model
- Develop a mapping process linking patients treated in the emergency rooms with RFPs to improve the continuum of care and standardized procedures and outcome measures.
- Promote RHP health system supports such as reminders of care, development of clinical performance measures, and the use of case management services to increase patient's adherence to health care guidelines.
- Establish evidence-based disease and disability prevention programs for targeted populations to reduce their risk of disease, injury, and disability.

Process Milestones:

P-1. Milestone: Development of innovative evidence-based project for targeted population.

P-1.1. Metric: Document innovational strategy and plan.

a. Data Source: Performing Provider evidence of innovational plan

b. Rationale/Evidence: To identify, develop and test new models of healthcare delivery and disease management lays the ground work for widespread adoption of innovative care that can lead to a system that delivers better health, better care at reduced costs.[3]

P-2. Milestone: Implement evidence-based innovational project for targeted population

P-2.1. Metric: Document implementation strategy and testing outcomes.

a. Data Source: Performing Provider contract or other documentation of implementation TBD by Performing Provider.

b. Rationale/Evidence: To identify, develop and test new models of healthcare delivery and disease management lays the ground work for widespread adoption of innovative care that can lead to a system that delivers better health, better care at reduced costs.3

P-3. Milestone: Execution of learning and diffusion strategy for testing, spread and sustainability.

P-3.1. Metric: Document learning and diffusion strategic plan

a. Data Source: Performing Provider contract or other documentation of implementation TBD by Performing Provider.

b. Rationale/Evidence: Diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social system. Trying to change the pace at which innovation diffuses through a system is a priority of health care professionals, such changes easily have major impacts on cost, quality and patient satisfaction. A key factor in closing the gap between best practice and common practice is the ability of health care providers and their organizations to rapidly spread innovations and new ideas.

P-4. Milestone: Execution of evaluation process for project innovation.

P-4.1. Metric: Document evaluative process, tools and analytics.

a. Data Source: Performing Provider contract or other documentation of implementation TBD by Performing Provider
b. Rationale/Evidence: Evaluation if a systematic way to improve and account for public health actions by involving procedures that are useful, feasible, ethical, and accurate.[5]

P-5. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-5.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-5.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.

a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-6. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.

P-6.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.

a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals
b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-7. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.

P-7.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.
a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-7.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.
a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]

P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]
a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
b. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones:

I-5. Milestone: Identify X number or percent of patients in defined population receiving innovative intervention consistent with evidence-based model.

I-5.1. Metric: TBD by Performing Provider based on milestone described above

a. Numerator: Number of individuals of target population reached by the innovative project.

b. Denominator: Number of individuals in the target population

c. Data Source: Documentation of target population reached, as designated in the project plan.

d. Rationale/Evidence: To test innovative intervention model variables (better health improved care and lower costs).

I-6. Milestone: Identify impact on target intervention by using NCQA Supplemental items for CAHPS® 4.0 Adult Questionnaire (CAHPS 4.0H)Metric: Submission of CAHPS® 4.0 Adult Questionnaire (CAHPS 4.0H)

I-6.1. Must be supported by practice-approved milestones TBD by Performing Provider. This supplemental item was developed jointly by NCQA and the AHRQ-sponsored CAHPS Consortium and is intended for use with the CAHPS 4.0 Health Plan survey. This measure provides information on the experiences of Medicaid health plan members with the organization. Results summarize member experiences through composites and question summary rates. In addition to the 4 core composites from the CAHPS 4.0 Health Plan survey and two composites for commercial populations only, the HEDIS supplemental set includes one composite score and two item-specific summary rates. One of the item-specific rate measures the impact of Health Promotion and Education. Elements include: Getting timely care, appointment, and information; How well your doctors communicates, patients' rating of doctor's; access to specialists; health promotion and education; shared decision making.

a. Denominator Members 18 years and older as of December 31 of the measurement year. Medicaid: Members must be enrolled the last six months of the measurement year, and be currently enrolled at the time the survey is completed.

b. Data Source: TBD by Performing Provider.

c. Rationale/Evidence: To test innovative intervention model variables (better health, improved care and lower costs).

I-7. Milestone: Increase access to disease prevention programs using innovative project option. The following metrics are suggested for use with an innovative project option to increase access to disease prevention programs but are not required.

I-7.1. Metric: Increase percentage of target population reached.

a. Numerator: Number of individuals of target population reached by the innovative project.

b. Denominator: Number of individuals in the target population.

c. Data Source: Documentation of target population reached, as designated in the project plan.

d. Rationale/Evidence: This metric speaks to the efficacy of the innovative project in reaching it targeted population.

I-7.2. Metric: Increased number of encounters as defined by intervention (e.g., screenings, education, outreach, etc.)

a. Total number of visits for reporting period

b. Data Source: Registry, EHR, claims or other Performing Provider source

c. Rationale/Evidence: This measures the increased volume of visits and is a method to assess the ability for the Performing Provider to increase capacity to provide care.

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]

b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

2.8 Apply Process Improvement Methodology to Improve Quality/Efficiency

Project Goal:
The goal of this project is to implement process improvement methodologies to improve safety, quality, patient experience and efficiency. Providers may design customized initiatives based on various process improvement methodologies such as Lean, Six Sigma, Continuous Improvement, Rapid Cycle, Care Logistics, Nurses Improving Care for Healthsystem Elders (NICHE) among others.

For example, the Lean methodology as applied to medicine evaluates the use of resources, measures the value to the patient, considers the use of resources in terms of their value to the patient, and eliminates those that are wasteful. Using methodologies such as Lean that are proven to eliminate waste and redundancies and optimize patient flow, hospitals may customize a project that will develop and implement a program of continuous improvement that will increase communication, integrate system workflows, provide actionable data to providers and patients, and identify and improve models of patient-centered care that address issues of safety, quality, and efficiency.

Implementation frequently requires a new "operational mindset" using tools such as Lean to identify and progressively eliminate inefficiencies while at the same time linking human performance, process performance and system performance into transformational performance in the delivery system.[128]

The process improvement, as a further example, may include elements such as identifying the value to the patient, managing the patient's journey, facilitating the smooth flow of patients and information, introducing "pull" in the patient's journey (e.g. advanced access), and/or continuously reducing waste by developing and amending processes awhile at the same time smoothing flow and enhancing quality and driving down cost.[129]

Furthermore, projects designed and implemented using the Care Logistics™ patient-centered, care coordination model involves managing the simultaneous logistics of a patient moving through the hospital. It may be used to help hospitals transform their operations to improve patient flow into cross departmental hubs and provide actionable data in real-time on key performance indicators, such as, but not limited to, length of stay, patient flow times, discharge process times, re-admission rates, and patient, provider and staff satisfaction.[130]

In addition, hospitals may design a process improvement initiative utilizing the NICHE program framework, which aims to facilitate the infusion of evidence-based geriatric best practices throughout institutions to improve nursing care for older adult patients. NICHE is based on the use of principles and tools to support a systemic change in nursing practice and in the culture of healthcare facilities to achieve patient-centered care.[131]

Project Options:

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128 Oujiri J, Ferrara C. "The Phoenix Project – Integrating Effective Disease Management Into Primary Care Using Lean Six-Sigma Tools." Duluth Clinic Presentation. 2010.
129 Bibby J. "Lean in Primary Care: The Basics – Sustaining Transformation." Asian Hospital and Healthcare Management (2011) 18.
130 http://www.carelogistics.com/
131 http://www.nicheprogram.org/

2.8.1 Design, develop, and implement a program of continuous, rapid process improvement that will address issues of safety, quality, and efficiency. Required core project components:

- **a)** Provide training and education to clinical and administrative staff on process improvement strategies, methodologies, and culture.
- **b)** Develop an employee suggestion system that allows for the identification of issues that impact the work environment, patient care and satisfaction, efficiency and other issues aligned with continuous process improvement.
- **c)** Define key safety, quality, and efficiency performance measures and develop a system for continuous data collection, analysis, and dissemination of performance on these measures ((i.e. weekly or monthly dashboard).
- **d)** Develop standard workflow process maps, staffing and care coordination models, protocols, and documentation to support continuous process improvement.
- **e)** Implement software to integrate workflows and provide real-time performance feedback.
- **f)** Evaluate the impact of the process improvement program and assess opportunities to expand, refine, or change processes based on the results of key performance indicators.

2.8.2 "Other" project option: Implement other evidence-based project to apply process improvement methodology to improve quality/efficiency in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project. Milestone I-16 includes suggestions for improvement metrics to use with this innovative project option.

Note: All of the project options in project area 2.8 should include a component to conduct quality improvement for the project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, "lessons learned," opportunities to scale all or part of the project to a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations.

Project Options tied to a customized outcome in a specified Category 3 domain

2.8.3 Project Option: Reduction in Potentially Preventable Admission Rates (PPAs) Implement an innovative and evidence based intervention that will lead to **reductions** in Potentially Preventable Admissions (PPAs) for providers that have demonstrated need or unsatisfactory performance in this area. This project requires reporting of specific metric(s) as associated with corresponding outcome(s) listed in **Category 3, Outcome Domain -2, <u>Potentially Preventable Admissions</u>**[132]. Providers selecting this project option should use process milestone(s) X, improvement milestone(s) Y, and the milestone development template listed at the

132 Category 3 Outcome Measures document

conclusion of this project area to describe how the proposed milestones relate to the specific intervention goals.

2.8.4 Project Option: Reduction in 30-Day Hospital Readmission Rates (Potentially Preventable Readmissions)[133]
Implement an innovative and evidence based intervention that will lead to reductions in 30 Day Readmissions for providers that have demonstrated need or unsatisfactory performance in this area. This project requires reporting of specific metric(s) as associated with corresponding outcome(s) listed in **Category 3, Outcome Domain- 3, Potentially Preventable Readmissions**[1]. Providers selecting this project option should use process milestone(s) X, improvement milestone(s) Y, and the milestone development template listed at the conclusion of this project area to describe how the proposed milestones relate to the specific intervention goals.

2.8.5 Project Option: Reduction in Potentially Preventable Complications (PPC)
Implement an innovative and evidence based intervention that will lead to **reductions** in Potentially Preventable Complications (PPCs) for providers that have demonstrated need or unsatisfactory performance in this area. This project requires reporting of specific metric(s) as associated with corresponding outcome(s) listed in **Category 3, Outcome Domain-4, Potentially Preventable Complications**[1]. Providers selecting this project option should use process milestone(s) X, improvement milestone(s) Y and the milestone development template listed at the conclusion of this project area to describe how the proposed milestones relate to the specific intervention goals.

2.8.6 Project Option: Reduce Inappropriate ED Use
Implement an innovative and evidence based intervention that will lead to **reductions** in inappropriate Emergency Department use for providers that have demonstrated need or unsatisfactory performance in this area. This project requires reporting of specific metric(s) as associated with corresponding outcome(s) listed in **Category 3, Outcome Domain -9, Right Care, Right Setting**[1]. Providers selecting this project option should use process milestone(s) X, improvement milestone(s) Y and the milestone development template listed at the conclusion of this project area to describe how the proposed milestones relate to the specific intervention goals.

2.8.7 Project Option: Improved Clinical Outcome for Identified Disparity Group
Implement an innovative and evidence based intervention that will lead to **improvements** in clinical outcomes for an identified disparity group for providers that have demonstrated need or unsatisfactory performance in this area. This project requires reporting of specific metric(s) as associated with corresponding outcome(s) listed in **Category 3, Outcome Domain -11, Addressing Health Disparities in Minority Population**[134]. Providers selecting this project option should use process milestones X, improvement milestones Y and the milestone development template listed at the conclusion of this project area to describe how the proposed milestones relate to the specific intervention goals.

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133 http://www.hhsc.state.tx.us/reports/2012/potentially-preventable-readmissions.pdf
134 Category 3 Outcome Measures document

2.8.8 Project Option: Improved Access to Care
Implement an innovative and evidence based intervention that will lead to **increase** in access to care for providers that have demonstrated need or unsatisfactory performance in this area. This project requires reporting of specific metric(s) as associated with corresponding outcome(s) listed in **Category 3, Outcome Domain - 1, Primary Care and Chronic Disease Management**[3]. Providers selecting this project option should use process milestone(s) X, improvement milestone(s) Y and the milestone development template listed at the conclusion of this project area to describe how the proposed milestones relate to the specific intervention goals.

2.8.9 Project Option: Improvement in Perinatal Health Indicator(s)
Implement an innovative and evidence based intervention that will lead to **improvements** in perinatal health outcomes for providers that have demonstrated need or unsatisfactory performance in this area. This project requires reporting of specific metric(s) as associated with corresponding outcome(s) listed in **Category 3, Outcome Domain - 8, Perinatal Care Outcomes**[3]. Providers selecting this project option should use process milestones X, improvement milestones Y and the milestone development template listed at the conclusion of this project area to describe how the proposed milestones relate to the specific intervention goals.

2.8.10 Project Option: Improve Clinical Indicator/Functional Status for Target Population
Implement an innovative and evidence based intervention that will lead to **improvements** in a selected clinical indicator for a targeted population for providers that have demonstrated need or unsatisfactory performance in this area. This project requires reporting of specific metric(s) as associated with corresponding outcome(s) listed in **Category 3, Outcome Domain - 10, Quality of Life/Functional Status**[3]. Providers selecting this project option should use process milestone(s) X, improvement milestone(s) Y and the milestone development template listed at the conclusion of this project area to describe how the proposed milestones relate to the specific intervention goals.

2.8.11 Project Option: Sepsis
Implement an innovative and evidence based intervention that will lead to **reductions** in Sepsis Complications (mortality, prevalence and incidence) for providers that have demonstrated need or unsatisfactory performance in this area. This project requires reporting of specific metric(s) as associated with corresponding outcome(s) listed in **Category 3, Outcome Domain -3, Potentially Preventable Complications**[135]. Providers selecting this project option should use process milestone(s) X, improvement milestone(s) Y and the milestone development template listed at the conclusion of this project area to describe how the proposed milestones relate to the specific intervention goals.

2.8.12 Project Option: Other
Implement an innovative and evidence based intervention that will lead to improvements in a health outcome not include elsewhere for providers that have demonstrated need or unsatisfactory performance in this area. This project requires reporting of specific metric(s) as associated with corresponding outcome(s) titled Other Outcome Improvement Target listed in each **Outcome Domain** in

135 Category 3 Outcome Measures document

Category 3. Providers selecting this project option should use process milestones X, improvement milestones Y and the milestone development template listed at the conclusion of this project area to describe how the proposed milestones relate to the specific intervention goals.

Rationale:
Every day, millions of Americans receive high-quality health care that helps to maintain or restore their health and ability to function. However, far too many do not. Quality problems are reflected in a wide variation in the use of health care services, underuse of some services, overuse of other services, and misuse of services, including an unacceptable level of errors.
A central goal of health care quality improvement is to maintain what is good about the existing health care system while focusing on the areas that need improvement.
Several types of quality problems in health care have been documented through peer-reviewed research. [136]

Variation in services. There continues to be a pattern of wide variation in health care practice, including regional variations and small-area variations. This is a clear indicator that health care practice has not kept pace with the evolving science of health care to ensure evidence-based practice in the United States.

Underuse of services. Millions of people do not receive necessary care and suffer needless complications that add to costs and reduce productivity. Each year, an estimated 18,000 people die because they do not receive effective interventions.

Overuse of services. Each year, millions of Americans receive health care services that are unnecessary, increase costs, and may even endanger their health. Research has shown that this occurs across all populations.

Misuse of services. Too many Americans are injured during the course of their treatment, and some die prematurely as a result.

Disparities in quality. Although quality problems affect all populations, there may be specific groups identified that have marked differences in quality of care and health outcome. These group may be defined by racial/ethnic differences, income states, geographic area or other social determinants of health.

Process Milestones:

- P-1. Milestone: Target specific workflows, processes and/or clinical areas to improve
  - P-1.1. Metric: Performing Provider review and prioritization of areas or processes to improve upon.

136 http://www.ahrq.gov/news/qualfact.htm

a. Submission of Performing Provider report
b. Data Source: TBD by Performing Provider
c. Rationale/Evidence: TBD by Performing Provider

P-2. Milestone: Identify/target metric to measure impact of process improvement methodology and establish baseline

P-2.1. Metric: Performing Provider identification of impact metrics and baseline.

a. Submission of Performing Provider report
b. Data Source: TBD by Performing Provider
c. Rationale/Evidence: TBD by Performing Provider

P-3. Milestone: Compare and analyze clinical/quality data, and identify at least one area for improvement

P-3.1. Metric: Analysis and identification of target area

a. Submission of analysis findings/summary and identification of target area
b. Data Source: Analysis
c. Rationale/Evidence: It is important to continue to identify areas needing improvement. Analysis report should include current performance for areas of highest needs, performance indictors analyzed, analysis methodology, relevant benchmarks, rationale for selection of improvement area, and identified performance improvement activities or interventions that would lead to improvements in the needed area.

P-4. Milestone: Define operational procedures needed to improve overall efficiencies in care management.

P-4.1. Metric: Report on at least two new operational procedures needed to improve overall efficiencies in care management

a. Submission of analysis findings/summary
b. Data source: Performing Provider report
c. Rationale/Evidence: TBD by Performing Provider

P-5. Milestone: Complete a Kaizen assessment

P-5.1. Metric: Implement at least one patient care centered process improvement project in X number of practices

a. Documentation of process improvement implementation in practices
b. Data Source: Performing Provider report
c. Rationale/Evidence: TBD by Performing Provider

P-6. Milestone: Implement a program to improve efficiencies and/or reduce program variation

P-6.1. Metric: Performance improvement events

a. Number of performance improvement events
b. Data Source: TBD by Performing Provider
c. Rationale/Evidence: Improving efficiencies and reducing variation will not only help to reduce waste and redundancies, but also will help providers/staff focus on value-added work and improve quality and experience of care for patients. Increasing efficiencies and reducing variation can help create more patient access and provider/staff capacity and enhance patient outcomes (right time, right place, right care).

P-7. Milestone: Implement a rapid improvement project using a proven methodology (i.e., Lean/Kaizen, Institute for Healthcare Improvement Rapid Cycle improvement method).

P-7.1. Metric: Rapid improvement cycle

a. Documentation that all of the steps included in the cycle methodology were performed: e.g. (1) Standardized an operation; (2) Measured the standardized operation (cycle time and amount of in-process inventory); (3) Gauged measurements against requirements; (4) Innovated to meet requirements and increase productivity; (5) Standardized the new, improved operations; (6) Continued the cycle
b. Data Source: Documentation of rapid improvement project such as idea sheets, attendance sheets, daily reports of progress made, final report out. Or documentation of materials produced by the improvement event such as new standard workflows.
c. Rationale/Evidence: Texas hospitals employ various quality and process improvement methodologies to identify inefficiencies and ineffective care. They use these tools to strengthen their infrastructure and maximize their resources. Lean is one example of a management engineering approach now being adopted successfully by health care organizations to address a range of quality and operational issues. The Lean method, specifically, provides a range of techniques to create a more efficient and effective workplace by having smooth work flows and eliminating waste in time, effort, or resources. The Institute for Healthcare Improvement and the Agency for Healthcare Research and Quality have evidence-based practices that highlight the success of many hospitals and healthcare systems that have utilized these process improvement methodologies.[137]

P-8. Milestone: Train providers/staff in process improvement

P-8.1. Metric: Number of providers/staff trained

a. Numerator: Number of providers/staff trained
b. Denominator: Total number of providers/staff

P-8.2. Number of trainings held

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137 http://www.ihi.org/Pages/default.aspx and http://www.ahrq.gov/qual/patientsafetyix.htm .

a. Data Source: Curriculum or other training schedules/materials
b. Rationale/Evidence: The training and inclusion of providers and frontline staff will encourage a culture of continuous performance improvement and help to make sure that improvements made are impactful and lasting.

P-9. Milestone: Complete a value stream map, which is a detailed, real-time sequence of steps in a given process to identify value-added and non-value-added steps for the patient and staff

P-9.1. Metric: Value stream mapping
a. Submission of completed value stream map
b. Data Source: Value stream map
c. Rationale/Evidence: Value stream mapping is a helpful method that can be used in Lean environments to identify opportunities for improvement in lead time. Value stream mapping can be used in any process that needs an improvement.

P-10. Milestone: Develop a quality dashboard that will quantify and determine the quality of care provided.

P-10.1. Metric: Submission of quality dashboard development, utilization and results.
a. Data source: Dashboard software, policies and procedures for use and sample dashboard report.
b. Rationale/Evidence: Quality dashboards can take many forms, based upon the needs and goals of the organization. Common components of a quality dashboard include: a performance dimension (or domain being measured), quality indicator(s) for that domain and statistics quantifying provider performance. Other components may include benchmarks, annual goals, performance targets and performance activities.

P-11. Milestone: Number of trainings conducted by designated trainee/process improvement champions

P-11.1. Metric: Trained by the trainee/champion trainings
a. Number of trainings conducted by designated process improvement trainees/champions
b. Number of providers/staff trained by designated process improvement trainees/champions
c. Data Source: Training program curriculum, educational materials, attendance lists, or other materials
d. Rationale/Evidence: Part of process improvement is implementing a culture change oriented toward continuous performance improvement.

P-12. Milestone: Report findings and learnings

P-12.1. Metric: Final report/report summary

a. Submission of report
b. Data Source: All data sources used for the process improvement events
c. Rationale/Evidence: While process improvement methodologies have demonstrated value in reducing/eliminating waste and non-value-added activities, these are difficult to measure, quantify and use to make a business case demonstrating a return-on-investment. Because this is an innovative methodology, the Performing Provider will report on whether the process improvement methodology was able to show improvement on a selected measure for learning purposes within and beyond the safety net.

P-13. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-13.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-13.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.

a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-14. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.

P-14.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.

a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals
b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-15. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.

P-15.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.
a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-15.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.
a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]

P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]
a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
b. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones:

I-13. Milestone: Progress toward target/goal

I-13.1. Metric: Number or percent of all clinical cases that meet target/goal
Numerator: Number of relevant clinical cases at target

a. Denominator: Total number of relevant clinical cases
b. Data Source: TBD by Performing Provider (e.g., quality dashboard)
c. Rationale/Evidence: It is estimated that 30% of health care spending - $600-700 billion – is unnecessary and wasteful. Reducing waste and ensuring that all patients receive appropriate care, especially preventive services, can result in dramatic improvements in health care efficiency and effectiveness.[138] Finding a way to measure this impact could be very beneficial.

I-14. Milestone: Measure efficiency and/or cost

I-14.1. Metric: TBD by Performing Provider
Numerator: TBD by Performing Provider

a. Denominator: TBD by Performing Provider
b. Data Source: TBD by Performing Provider
c. Rationale/Evidence: While process improvement methodologies have demonstrated value in reducing/eliminating waste and non-value added activities, these are difficult to measure, quantify and use to make a business case demonstrating a return-on-investment. Because this is an innovative methodology, the Performing Provider will report on whether the process improvement methodology was able to show improvement on a selected measure for learning purposes within and beyond the safety net.

138 National Priorities Partnership, http://www.nationalprioritiespartnership.org/PriorityDetails.aspx?id=598.

I-15. Milestone: Increase the number of process improvement champions

I-15.1. Metric: Number of designated quality champions
Number of trained and designated process improvement champions

a. Data Source: HR, or training curriculum or other program materials

b. Rationale/Evidence: Part of process improvement is implementing a culture change oriented toward continuous performance improvement.

I-16. Milestone: Improve Quality and efficiency using innovative project option. These are suggested metrics for the innovative project option but are not required.

I-16.1. Metric: Achieve X percent improvement for a minimum of X key performance indicators. Key performance indicators could include, but are not limited to: length of stay, patient flow times, discharge process times, ED patient holds.

I-16.2. Metric: Improved clinical indicator

I-16.3. Metric: Other, as determined by provider

<u>Customizable Improvement Milestone I-X</u>: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]

b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

2.9 Establish/Expand a Patient Care Navigation Program

Project Goal:
The goal of this project is to utilize community health workers, case managers, or other types of health care professionals as patient navigators to provide enhanced social support and culturally competent care to vulnerable and/or high-risk patients. Patient navigators will help and support these patients to navigate through the continuum of health care services. Patient Navigators will ensure that patients receive coordinated, timely, and site-appropriate health care services. Navigators may assist in connecting patients to primary care physicians and/or medical home sites, as well as diverting non-urgent care from the Emergency Department to site-appropriate locations. RHPs implementing this project will identify health care workers, case managers/workers or other types of health professionals needed to engage with patients in a culturally and linguistically appropriate manner that will be essential to guiding the patients through integrated health care delivery systems.
A study on Patient Navigation funded by the National Cancer Institute was done in TX and a manual for patient navigation programs directed towards Latino audiences was released following its completion.[139]

Project Options:

2.9.1 Provide navigation services to targeted patients who are at high risk of disconnect from institutionalized health care (for example, patients with multiple chronic conditions, cognitive impairments and disabilities, Limited English Proficient patients, recent immigrants, the uninsured, those with low health literacy, frequent visitors to the ED, and others)
Required core project components:

a) Identify frequent ED users and use navigators as part of a preventable ED reduction program. Train health care navigators in cultural competency.
b) Deploy innovative health care personnel, such as case managers/workers, community health workers and other types of health professionals as patient navigators.
c) Connect patients to primary and preventive care.
d) Increase access to care management and/or chronic care management, including education in chronic disease self-management.
e) Conduct quality improvement for project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, identifying "lessons learned," opportunities to scale all or part of the project to a broader patient population, and identifying key challenges associated with expansion of the project, including special considerations for safety-net populations.

2.9.2 "Other" project option: Implement other evidence-based project to establish/expand a patient care navigation program in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project.

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139 http://www.redesenaccion.org/sites/www.redesenaccion.org/files/PNmanualfinal.pdf

Milestone I-10 includes suggestions for improvement metrics to use with this innovative project option.

Note: All of the project options in project area 2.9 should include a component to conduct quality improvement for the project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, "lessons learned," opportunities to scale all or part of the project to a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations.

Rationale:
Patient navigators help patients and their families navigate the fragmented maze of doctors' offices, clinics, hospitals, out-patient centers, payment systems, support organizations and other components of the healthcare system. Services provided by patient navigators vary by program and the needs of the patient, but often include:[140]

- Facilitating communication among patients, family members, survivors and healthcare providers.
- Coordinating care among providers.
- Arranging financial support and assisting with paperwork.
- Arranging transportation and child care.
- Ensuring that appropriate medical records are available at medical appointments.
- Facilitating follow-up appointments.
- Community outreach and building partnership with local agencies and groups.
- Ensuring access to clinical trials.

There is no one common definition of patient navigators and the profile of a patient navigator vary widely by program. Many use trained community health workers who may be full-time employees or volunteers. Community health workers have close ties to the local community and serve as important links between underserved communities and the healthcare system. They also posses the linguistic and cultural skills needed to connect with patients from underserved communities. Community health workers are also known as community health advisors, lay health advocates and promotoras de salud. Healthcare navigators include trained social workers, nurses and nurse practitioners as well as trained lay persons/volunteers. Some navigation programs also use a team based approach that combines community health workers with one or more professionals with experience in healthcare or social work. While there is no set education required for a patient navigator to be successful, a successful navigator should be:

- Compassionate, sensitive, culturally attuned to the people and community being served and able to communicate effectively.
- Knowledgeable about the environment and healthcare system.
- Connected with critical decision makers inside the system, especially financial decision makers.

Process Milestones:

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140 http://www.altfutures.com/draproject/pdfs/Report_07_02_Patient_Navigator_Program_Overview.pdf

P-1. Milestone: Conduct a needs assessment to identify the patient population(s) to be targeted with the Patient Navigator program.

P-1.1. Metric: Provide report identifying the following:

- Targeted patient population characteristics (e.g., patients with no PCP or medical home, frequent ED utilization, homelessness, insurance status, low health literacy).
- Gaps in services and service needs.
- How program will identify, triage and manage target population (i.e. Policies and procedures, referral and navigation protocols/algorithms, service maps or flowcharts).
- Ideal number of patients targeted for enrollment in the patient navigation program
- Number of Patient Navigators needed to be hired
- Available site, state, county and clinical data including flow patients, cases in a given year by race and ethnicity, number of cases lost to follow-up that required medical treatment, percentage of monolingual patients
  - a. Data Source: Program documentation, EHR, claims, needs assessment survey
  - b. Rationale/Evidence: Patient care navigation has been established as a best practice to improve the care of populations at high risk of being disconnected from health care institutions.[141]

P-2. Milestone: Establish/expand a health care navigation program to provide support to patient populations who are most at risk of receiving disconnected and fragmented care[142] including program to train the navigators, develop procedures and establish continuing navigator education.

P-2.1. Metric: Number of people trained as patient navigators, number of navigation procedures, or number of continuing education sessions for patient navigators.

- a. Workforce development plan for patient navigator recruitment, training and education

P-2.2. Rationale: A navigator's education and skill level are main determinants of the cost of patient navigation. Education, a typical gauge for salary, can range from a peer educator recruited from the community and trained in a clinical setting to an oncology research nurse with a graduate degree. Metric: Number of unique patients enrolled in the patient navigation program;

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141 As an example, see "Limited English Proficiency Patient Family Advocate," available at AHRQ's Innovations Exchange, http://www.innovations.ahrq.gov/content.aspx?id=2726

142 Could be facility-oriented, illness/condition-oriented, and/or focused on patient populations who are at most risk of disconnected care (e.g., "Limited English Proficiency Patient Family Advocate" available here http://www.innovations.ahrq.gov/content.aspx?id=2726, urgent care, ED)

a. Data Source: Patient navigation program materials and database, EHR
b. Rationale/Evidence: Patient care navigation has been established as a best practice to improve the care of populations at high risk of being disconnected from health care institutions.[143]

P-2.3. Metric: Frequency of contact with care navigators for high risk patients.
a. Numerator: Number of care navigation encounters
b. Denominator: Number of unique patients enrolled in patient navigation program.
c. Data Source: Patient navigation program materials and database, EHR
d. Rationale/Evidence: Patient care navigation has been established as a best practice to improve the care of populations at high risk of being disconnected from health care institutions

P-3. Milestone: Provide care management/navigation services to targeted patients.

P-3.1. Metric: Increase in the number or percent of targeted patients enrolled in the program
a. Numerator: Number of targeted patients enrolled in the program
b. Denominator: Total number of targeted patients identified
c. Data Source: Enrollment reports
d. Rationale/Evidence: Ineffective navigation of the health care system by patients may lead to poorer outcomes and inefficiencies because of delayed care, failure to receive proper care or treatments, or care being received in more expensive locations (i.e., emergency rooms).[144]

P-4. Milestone: Increase patient engagement, such as through patient education, self-management support, improved patient-provider communication techniques, and/or coordination with community resources

P-4.1. Metric: Number of classes and/or initiations offered, or number or percent of patients enrolled in the program
a. Numerator: Number of patients enrolled in patient engagement programs
b. Denominator: Number of patients eligible to participate in engagement programs, as determined by provider.
c. Data Source: May vary, such as class participant lists
d. Rationale/Evidence: Increased patient engagement in such activities can empower patients with the knowledge, information, and confidence to better self-manage their conditions, helping the patients to stay healthy

P-5. Milestone: Provide reports on the types of navigation services provided to patients using the ED as high users or for episodic care. The navigation program is accountable for making PCP or medical home appointments and ensuring continuity of care.

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143 As an example, see "Limited English Proficiency Patient Family Advocate," available at AHRQ's Innovations Exchange, http://www.innovations.ahrq.gov/content.aspx?id=2726

144 Sofaer S. Navigating poorly charted territory: patient dilemmas in health care "nonsystems." Med Care Res Rev 2009;66(1 Suppl):75S–93S.

Especially for disenfranchised or medically complex patients, navigation is about guiding people through and across the HC system, from provider to provider, ensuring they can get to and make multiple appointments, get prescriptions filled, access to community services for people with special needs (such as getting cancer patients access to support groups), etc. the patient navigator represents the liaison between primary, secondary, tertiary and quaternary health care.

P-5.1. Metric: Collect and report on all the types of patient navigator services provided.

a. Data Source:

b. Rationale/Evidence: Patient Navigators are intended to help patients and their caregivers interact with various departments and processes within the health care system. Developing a report of the most prevalent types of services provided will allow the performing providers to tailor the services provided based upon patient needs. Reports on these types of activities could include frequency of primary care referrals, coordination with specialist care, diagnostic services, social services, pharmacy services, patient educations services and peer support networks.

P-6. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-6.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-6.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.

a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-7. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.

P-7.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.

a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals

b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-8. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.

P-8.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.

a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-8.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.

a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]
P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]
a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
b. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones:

I-6. Milestone: Increase number of PCP referrals for patients without a medical home who use the ED, urgent care, and/or hospital services.

I-6.1. Metric: Increase medical home empanelment of patients referred from navigator program.

a. Numerator: Number of new patients referred for services from Patient Navigator Program that are seen in primary care setting and empanelled to the medical home.

b. Denominator: Number of new patients referred for services from Patient Navigator Program.

c. Data Source: Performing Provider administrative data on patient encounters and scheduling records from patient navigator program.

d. Rationale: Patient care navigation has been established as a best practice to improve the care of populations at high risk of being disconnected from health care institutions.[145] Tying inpatient and outpatient care can help integrate inpatient and outpatient services and promote accountability for the coordination, cost and quality of care.

I-6.2. Metric: Percent of patients without a primary care provider (PCP) who received education about a primary care provider in the ED

a. Numerator: Number ED patients without a PCP documented in their medical record that receive (documented) education or resources to identify a PCP from a patient navigator.

b. Denominator: ED patients without a PCP documented in their medical record.

c. Data Source: Performing Provider administrative data on patient encounters and scheduling records from patient navigator program.

d. Rationale: Patient care navigation has been established as a best practice to improve the care of populations at high risk of being disconnected from health care institutions.[146] Tying inpatient and outpatient care can help integrate inpatient and outpatient services and promote accountability for the coordination, cost and quality of care.

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145 As an example, see "Limited English Proficiency Patient Family Advocate," available at AHRQ's Innovations Exchange, http://www.innovations.ahrq.gov/content.aspx?id=2726

146 As an example, see "Limited English Proficiency Patient Family Advocate," available at AHRQ's Innovations Exchange, http://www.innovations.ahrq.gov/content.aspx?id=2726

I-6.3. Metric: Percent of patients without a primary care provider who were referred to a primary care provider in the ED

a. Numerator: Number ED patients without a PCP documented in their medical record that receive (documented) referral to a PCP.
b. Denominator: ED patients without a PCP documented in their medical record.
c. Data Source: Performing Provider administrative data on patient encounters and scheduling records from patient navigator program.
d. Rationale: Patient care navigation has been established as a best practice to improve the care of populations at high risk of being disconnected from health care institutions.[147] Tying inpatient and outpatient care can help integrate inpatient and outpatient services and promote accountability for the coordination, cost and quality of care.

I-6.4. Metric: Percent of patients without a primary care provider who are given a scheduled primary care provider appointment

a. Numerator: Number of patients without a PCP documented in their medical record that receive an appointment with a PCP as a function of the care navigation program.
b. Denominator: Number of patients without a PCP documented in their medical record using the care navigation program.
c. Data Source: Performing Provider administrative data on patient encounters and scheduling records from patient navigator program.
d. Rationale: Patient care navigation has been established as a best practice to improve the care of populations at high risk of being disconnected from health care institutions.[148] Tying inpatient and outpatient care can help integrate inpatient and outpatient services and promote accountability for the coordination, cost and quality of care.

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147 As an example, see "Limited English Proficiency Patient Family Advocate," available at AHRQ's Innovations Exchange, http://www.innovations.ahrq.gov/content.aspx?id=2726

148 As an example, see "Limited English Proficiency Patient Family Advocate," available at AHRQ's Innovations Exchange, http://www.innovations.ahrq.gov/content.aspx?id=2726

I-6.5. Metric: Number/percent of patients with a primary care provider who are given a scheduled primary care provider appointment

a. Numerator: Number of patients that receive an appointment with a PCP as a function of the care navigation program.
b. Denominator: Number of patients using the care navigation program.
c. Data Source: Performing Provider administrative data on patient encounters and scheduling records from patient navigator program.
d. Rationale: Patient care navigation has been established as a best practice to improve the care of populations at high risk of being disconnected from health care institutions.[149] Tying inpatient and outpatient care can help integrate inpatient and outpatient services and promote accountability for the coordination, cost and quality of care.

I-6.6. Metric: Individual engagement measure derived from the individual engagement domain of the C-CAT

a. Numerator: Individual engagement: an organization should help its workforce engage all individuals, including those from vulnerable populations, through interpersonal communication that effectively elicits health needs, beliefs, and expectations; builds trust; and conveys information that is understandable and empowering. Measure is scored on 18 items from the patient survey of the C-CAT and 9 items from the staff survey of the C-CAT. Minimum of 100 patient responses and 50 staff responses.
b. Denominator: There are two components to the target population: staff (clinical and nonclinical) and patients. Sites using this measure must obtain at least 50 staff responses and at least 100 patient responses. Exclusion: Staff respondents who do not have direct contact with patients are excluded from questions that specifically address patient contact.
c. Data source: C-CAT
d. Rationale: 0-100 measure of individual engagement related to patient-centered communication, derived from items on the staff and patient surveys of the Communication Climate Assessment Toolkit.

149 As an example, see "Limited English Proficiency Patient Family Advocate," available at AHRQ's Innovations Exchange, http://www.innovations.ahrq.gov/content.aspx?id=2726

I-7. Milestone: Reduce number of ED visits and/or avoidable hospitalizations for patients enrolled in the navigator program

I-7.1. Metric: ED visits and/or avoidable hospitalizations

a. Numerator: Number of patients enrolled in the navigator program who have had an ED visit or an inpatient admission (timeframe TBD by Performing Provider)

b. Denominator: Total number of patients enrolled in the navigator program

c. Data Source: EHR, navigation program database, ED records, inpatient records

d. Rationale/Evidence: Avoidable hospitalizations and excessive use of ED are seen as key measures of patients' disconnect from the health care systems.150 As this is an innovative program, it is a good opportunity to measure whether the program can have a direct impact on reducing ED visits/avoidable hospitalizations.

I-8. Milestone: Reduction in ED use by identified ED frequent users receiving navigation services.

I-8.1. Metric: ED visits pre- and post-navigation services by individuals identified as ED frequent users.

a. Difference in total number of ED visits pre- and post-navigation services.

b. Data Source: Claims and EHR/registry

d. Rationale: TBD by provider

150 For example, see the care transitions work of Eric Coleman, MD, at http://www.caretransitions.org

I-9. Additional outcome metrics (to be specified by Performing Provider based upon target population and project rationale).

I-9.1. Metric: Improved clinical outcomes of target population. The clinical outcomes can be either intermediate (e.g. in Diabetes: HbA1c, lipid profile, blood pressure, serum microalbumin) or end result (e.g. mortality, morbidity, functional status, health status, quality of life or patient satisfaction).

a. Numerator: Average [clinical outcome] (TBD by provider) of patients participating in Navigator program.

b. Denominator: Average [clinical outcome] (TBD by provider) of all patients.

c. Data Source: EHR

d. Rationale: TBD by provider

I-9.2. Metric: Improved compliance with recommended care regimens.

a. Numerator: % compliance with [recommended care regimen] (TBD by provider) of patients participating in Navigator program.

b. Denominator: % compliance with [recommended care regimen] (TBD by provider) of all patients.

c. Data Source: EHR, claims

d. Rationale: TBD by provider

I-10. Milestone: Improvements in access to care of patients receiving patient navigation services using innovative project option. The following metrics are suggested for use with an innovative project option to increase access to the services but are not required.

I-10.1. Metric: Increase percentage of target population reached.

a. Numerator: Number of individuals of target population reached by the Patient Navigator Program.
b. Denominator: Number of individuals in the target population.
c. Data Source: Documentation of target population reached, as designated in the project plan.
d. Rationale/Evidence: This metric speaks to the efficacy of the innovative project in reaching its targeted population.

I-10.2. Metric: Increased number of primary care referrals.

a. Total number of visits for reporting period
b. Data Source: Registry, EHR, claims or other Performing Provider source
c. Rationale/Evidence: This measures the increased volume of visits and is a method to assess the ability for the Performing Provider to increase capacity to provide care.

I-10.3. Metric: Documentation of increased number of unique patients served by innovative program. Demonstrate improvement over prior reporting period.

a. Total number of unique patients encountered in the clinic for reporting period.
b. Data Source: Registry, EHR, claims or other Performing Provider source
c. Rationale/Evidence: This measures the increased volume of visits and is a method to assess the ability for the Performing Provider to increase capacity to provide care.

I-10.4. Metric: Improved clinical outcomes of target population. The clinical outcomes can be either intermediate (e.g. in Diabetes: HbA1c, lipid profile, blood pressure, serum microalbumin) or end result (e.g. mortality, morbidity, functional status, health status, quality of life or patient satisfaction).

a. Numerator: Average [clinical outcome] (TBD by provider) of patients participating in Navigator program.
b. Denominator: Average [clinical outcome] (TBD by provider) of all patients.
c. Data Source: EHR
d. Rationale: TBD by provider

I-10.5. Metric: Improved compliance with recommended care regimens.

a. Numerator: % compliance with [recommended care regimen] (TBD by provider) of patients participating in Navigator program.
b. Denominator: % compliance with [recommended care regimen] (TBD by provider) of all patients.
c. Data Source: EHR, claims
d. Rationale: TBD by provider

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]

b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

2.10 Use of Palliative Care Programs

Project Goal:[151]
Provide palliative care services to improve patient outcomes and quality of life. Palliative medicine represents a different model of care, focusing not on cure at any cost but on relief and prevention of suffering. Here the priority is supporting the best possible quality of life for the patient and family, regardless of prognosis. Ideally, the principles of palliative care can be applied as far upstream as diagnosis, in tandem with cure-directed treatment, although it's still associated in most people's minds with end-of-life care. There is an economic incentive for hospitals to support palliative care -- research shows significant reductions in pharmacy, laboratory, and intensive care costs -- though there's understandable reluctance to tout such benefits. After all, accusations of "death panels" effectively shut out government funding for palliative care as national debates about health care reform took shape.

Palliative care has emerged in the past decade. It takes an interdisciplinary approach – doctors, nurses, social workers and often chaplains – and blends it with curative care for seriously ill people. While palliative care is for people who are very sick, they don't have to have a six-month life expectancy. Some palliative care programs operate in hospitals; others treat people living at home. Growing numbers of community-based hospices also have palliative care services now. Pediatric palliative care is not available everywhere, although it's becoming more common at the major children's hospitals, In addition, hospices nationwide, which traditionally were often unwilling to treat dying children, have also become more open to pediatric care. The new health reform law allows dying children on Medicaid or the state Children's Health Insurance Program to get hospice or palliative care without halting other treatment[152].

Health care reform has the potential to improve palliative care by implementing care coordination (in hospitals and community) evidence-based programs that are already proven to be working. Within palliative care, patients receive dignified and culturally appropriate end-of-life care, which is provided for patients with terminal illnesses in a manner that prioritizes pain control, social and spiritual care, and patient/family preferences

Project Options:

2.10.1 Implement a Palliative Care Program to address patients with end-of-life decisions and care needs
Required core project components:

- **a)** Develop a business case for palliative care and conduct planning activities necessary as a precursor to implementing a palliative care program
- **b)** Transition palliative care patients from acute hospital care into home care, hospice or a skilled nursing facility
- **c)** Implement a patient/family experience survey regarding the quality of care, pain and symptom management, and degree of patient/family centeredness in care and improve scores over time

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151 The Center to Advance Palliative Care (CAPC)www.capc.org/reportcard
152 http://www.kaiserhealthnews.org/
153 Cost savings associated with US hospital palliative care consultation programs.
Morrison RS, Penrod JD, Cassel JB, Caust-Ellenbogen M, Litke A, Spragens L, Meier DE; Palliative Care Leadership Centers' Outcomes Group. Arch Intern Med. 2008 Sep 8; 168(16):1783-90.

d) Conduct quality improvement for project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, identifying "lessons learned," opportunities to scale all or part of the project to a broader patient population, and identifying key challenges associated with expansion of the project, including special considerations for safety-net populations.

2.10.2 "Other" project option: Implement other evidence-based project to implement use of palliative care programs in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project. Milestone I-14 includes suggestions for improvement metrics to use with this innovative project option.

Note: All of the project options in project area 2.10 should include a component to conduct quality improvement for the project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, "lessons learned," opportunities to scale all or part of the project to a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations.

Rationale:

While end-of-life care was once associated almost exclusively with terminal cancer, today people receive end-of-life care for a number of other conditions, such as congestive heart failure, other circulatory conditions, COPD, and dementia[154]. Further, some experts have suggested that palliative and hospice care could be more widely embraced for many dying patients. However, these experts say that overly rigid quality standards and poorly aligned reimbursement incentives discourage appropriate end-of-life care and foster incentives to provide inappropriate restorative care and technologically intensive treatments. These experts note that hospitals, nursing homes, and home health agencies need stronger incentives to provide better access to palliative care and care coordination either directly, themselves, or by contract with outside suppliers of hospice services[155]. It seems clear that improving care coordination near the end of life can improve care for patients with chronic conditions, however, in addition to the elderly with multiple chronic conditions and terminal illnesses, palliative care should also allow children who are enrolled in either Medicaid or CHIP to receive hospice services without foregoing curative treatment related to a terminal illness.

Process Milestones:

P-1. Milestone: Develop a hospital-specific business case for palliative care and conduct planning activities necessary as a precursor to implementing a palliative care program

P-1.1. Metric: Business case

154 MedPAC, 2008

155 Zerzan, Stearns, & Hanson, 2000; Hanley, 2004

a. Submission of business case
b. Data Source: Business case write-up; documentation of planning activities
c. Rationale/Evidence: Studies have established that palliative care reduces the cost of care.[156] It is widely accepted in the field that planning activities are necessary to establish successful palliative care programs.[157]

P-2. Milestone: Educate primary care specialties (e.g. family medicine, Internal Medicine, Pediatrics, Geriatrics and other IM subspecialties) in providing palliative care including non-cancer training.

P-2.1. Metric: Primary care specialties training and education in palliative care
Documentation: Provide training and education curriculum

a. Data source: Database that tracks type and number of training and education sessions by health professional category (family medicine, Internal Medicine, Pediatrics, Geriatrics and other IM subspecialties).
b. Rationale/Evidence: All primary care specialties are involved with chronic diseases and the associated chronic symptoms and management of these symptoms but may not have specific expertise in palliative care programs and planning. As the goal of this palliative program is to provide resources to patients and families to improve patient experiences, the education programs will also consider the use of palliative care medicine through pulmonary, cardiovascular, infectious diseases, oncology and renal subspecialties.

P-3. Milestone: Implement palliative care education and training programs for providers (physicians, RNs, PAs, NPs, etc.) that incorporates management of non-cancer patients.

P-3.1. Metric: Palliative care training and education for other providers

a. Documentation: Provide training and education curriculum
b. Data source: Database that tracks type and number of training and education sessions by health professional category (physicians, RNs, PAs, NPs, etc).
c. Rationale/Evidence: All primary care specialties are involved with chronic diseases and the associated chronic symptoms and management of these symptoms but may not have specific expertise in palliative care programs and planning. As the goal of this palliative program is to provide resources to patients and families to improve patient experiences, the education programs will also consider the use of palliative care medicine for health care personnel (including ancillary staff).

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156 For example, see a study by Sean Morrison, et al., http://www.med-ic.org/pdf/PC1.pdf
157 For example, see the website for CDPC (Center to Advance Palliative Care,) http://www.capc.org/building-a-hospital-based-palliative-care-program/designing

P-4. Milestone: Develop an EHR/system (e.g. a rounding tool or a registry or software) that analyzes the palliative care system data to determine if the program is effective

P-4.1. Metric: EHR system implementation with capacity for palliative care registry and metric analysis.

a. Documentation: Implementation of an EHR system in the palliative care program.

b. Data Source: Vendor agreement, documentation of EHR capacity and use

c. Rationale/Evidence: Measure all the metrics (e.g. percentage clinic visits documented in the EHR, the amount of lab values accurately placed in the patient chart, or even the number of e-prescriptions sent over an established timeframe) to document the palliative care program effectiveness. A study of 2021 hospitals showed that the quality of care provided improved among all types of hospitals that implemented a form of EHR[158]

P-5. Milestone: Implement/expand a palliative care program

P-5.1. Metric: Implement comprehensive palliative care program

a. Documentation: Charter for Palliative care program ; Operational Plan; ; palliative care team and hiring agreements;

b. Data Source: Palliative care program

c. Rationale/Evidence: There is widespread evidence that palliative care can improve the quality of care while reducing cost.[159]

P-6. Milestone: Increase the number of palliative care consults

P-6.1. Metric: Palliative care consults meet targets established by the program

a. Numerator: Number of palliative care consults

b. Denominator: Target number of palliative care consults

c. Data Source: EHR, palliative care database

d. Rationale/evidence: Palliative care is associated with improved patient outcomes, satisfaction and quality of life.

P-7. Milestone: Determine how many consults are submitted per number of patients admitted with chronic conditions or MCC (e.g. COPD exacerbation, heart failure exacerbation, fluid overload in an ESRD patient, etc) that are candidates for palliative care services.

P-7.1. Metric: Palliative care consults for patients with chronic conditions.

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158 http://www.healthcareitnews.com/news/study-highlights-lurking-question-measuring-ehr-effectiveness

159 See http://www.capc.org

a. Numerator: Number of palliative care consults for patients with PCC/MCC
b. Denominator: Total number of patients admitted with chronic conditions or MCC
c. Data Source: EHR, palliative care database
d. Rationale/evidence: Assess how effective is this consult service in large numbers of patients and families and how does it improve their health care experience. Not all patients with a chronic condition are candidates for palliative care. While the goal is to see the numbers go up (b/c they're likely very small at baseline), it should not include all pts with any chronic disease get a palliative care consult.

P-8. Milestone: Document the conditions for which palliative care is consulted.

P-8.1. Metric: Breadth of conditions for which palliative care is utilized.

a. Numerator: Number of chronic conditions for which the palliative care patients are consulted
b. Denominator: Total number of patients admitted with chronic conditions or MCC
c. Data source: EHR, palliative care database
d. Rational/evidence: While typically palliative care is utilized mostly for patients with advanced cancer, it is quite underutilized for other chronic conditions (e.g. COPD exacerbation, heart failure exacerbation, fluid overload in an ESRD patient, etc.)

P-9. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-9.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-9.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.

a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-10. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.

P-10.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.

a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals

b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-11. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.

P-11.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.

a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-11.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.

a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]
P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]
a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
b. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones:

I-9. Milestone: Palliative care patients transitioned from acute hospital care into hospice, home care, or a skilled nursing facility (SNF) with and without hospice services.

I-9.1. Metric: Transitions accomplished

a. Numerator: Number of palliative care discharges to home care, hospice, or SNF

b. Denominator: Total number of palliative care discharges

c. Data Source: EHR, data warehouse, palliative care database

d. Rationale/Evidence: The goal of palliative care is to minimize transfers to ICUs, stays in the hospital, and discharge home with no services; while maximizing patient transitions to home care, hospice and SNF when asked for by the patient/caregiver because those services often make the most sense given the patient's condition.

Per The Center to Advance Palliative Care (CAPC)[160] palliative care is appropriate for patients across the continuum of care and is not restricted to "*end of life care*".

I-10. Milestone: Among patients who died in the hospital, increase the proportion of those who received a palliative care consult

I-10.1. Metric: Percent of total in-hospital deaths who had a palliative care consult

a. Numerator: Number of patients who died in the hospital and received at least one palliative care consult

b. Denominator: Number of patients who died in the hospital

c. Data Source: EHR, data warehouse palliative care database

d. Rationale/Evidence: Ideally, most patients who died in the hospital would have received a palliative care consultation so that the patient and the family have the choice of how the patient spends his/her end of life.

160 www.capc.org/reportcard

I-11. Milestone: Establish the comfort of dying for patients with terminal illness within their end-of-life stage of care

I-11.1. Metric: Pain screening (NQF-1634) Percentage of hospice or palliative care patients who were screened for pain during the hospice admission evaluation / palliative care initial encounter.

a. Numerator: Patients who are screened for the presence or absence of pain (and if present, rating of its severity) using a standardized quantitative tool during the admission evaluation for hospice / initial encounter for palliative care.

b. Denominator: Patients enrolled in hospice for 7 or more days OR patients receiving hospital-based palliative care for 1 or more days.

c. Rationale/Evidence: The Hospice and Palliative Care - Pain Screening measure addresses pain for patients with high severity of illness and risk of death, including seriously and incurably ill patients enrolled in hospice or hospital-based palliative care. Research on care of patients with serious incurable illness and those nearing the end of life shows they experience high rates of pain (40-70% prevalence) and other physical, emotional, and spiritual causes of distress. (1, 2) The National Priorities Partnership has identified palliative and end-of-life care as one of its national priorities. A goal of this priority is to ensure that all patients with life-limiting illness have access to effective treatment for symptoms such as pain and shortness of breath. (3) The affected populations are large; in 2009, 1.56 million people with life-limiting illness received hospice care. (4) In 2008, 58.5% of US hospitals with 50 or more beds had some form of palliative care service, and national trends show steady expansion of these services. (5) Patients and family caregivers rate pain management as a high priority when living with serious and life-limiting illnesses. (6) The consequences of inadequate screening, assessment and treatment for pain include physical suffering, functional limitation, and development of apathy and depression. (7)[161]

d. Exclusion: Patients with length of stay 7 days in hospice or 1 day in palliative care.

I-11.2. Metric: Pain assessment (NQF-1637) - Percentage of hospice or palliative care patients who screened positive for pain and who received a clinical assessment of pain within 24 hours of screening.

a. Numerator: Patients who received a comprehensive clinical assessment to determine the severity, etiology and impact of their pain within 24 hours of screening positive for pain.

b. Denominator: Patients enrolled in hospice OR receiving palliative care who report pain when pain screening is done on the admission evaluation / initial encounter.

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161 http://www.nahc.org/regulatory/HospiceRegs/1634.PDF

c. Rationale/Evidence: Pain is under-recognized by clinicians and undertreated, resulting in excess suffering from patients with serious illness. Pain screening and assessments are necessary in order to improve the patient centered outcome of pain, and its effects on global outcomes of function and quality of life.[162]

d. Exclusion: Patients with length of stay 1 day in palliative care or 7 days in hospice, patients who were not screened for pain. Patients who screen negative for pain are excluded from the denominator.

I-11.3. Metric: Dyspnea screening (NQF-1639) - Percentage of hospice or palliative care patients who were screened for dyspnea during the hospice admission evaluation / palliative care initial encounter.

a. Numerator: Patients who are screened for the presence or absence of dyspnea and its severity during the hospice admission evaluation / initial encounter for palliative care.

b. Denominator: Patients enrolled in hospice for 7 or more days OR patients receiving hospital-based palliative care for 1 or more days.

c. Rationale/Evidence: Dyspnea is prevalent and undertreated for many populations of seriously ill patients, including those patients nearing the end of life. Screening for dyspnea is necessary to determine its presence and severity, and forms the basis for treatment decision-making. Unlike pain, structured clinical assessment of the symptom is less well-defined; yet similar to pain, effective treatment is available to alleviate symptom distress.[163]

d. Exclusion: Patients with length of stay 7 days in hospice or 1 day in palliative care.

I-11.4. Metric: Dyspnea treatment (NQF-1638) - Percentage of patients who screened positive for dyspnea who received treatment within 24 hours of screening.

a. Numerator: Patients who screened positive for dyspnea who received treatment within 24 hours of screening.

b. Denominator: Patients enrolled in hospice for 7 or more days OR patients receiving palliative care who report dyspnea when dyspnea screening is done on the admission evaluation / initial encounter.

c. Rationale/Evidence: Effective treatment for dyspnea is available, but not consistently administered. Evidence-based treatments include pharmacologic interventions such as opioids and inhaled bronchodilators, and non-pharmacologic interventions including oxygen for hypoxic patients, pulmonary rehabilitation and exercise in COPD, and drainage of pleural effusion.164

d. Exclusion: Palliative care patients with length of stay 1 day or hospice patients with length of stay 7 days, patients who were not screened for dyspnea, and/or patients with a negative screening.

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162 http://www.nahc.org/regulatory/HospiceRegs/1637.PDF
163 http://www.nahc.org/regulatory/HospiceRegs/1639.PDF
164 http://www.nahc.org/regulatory/HospiceRegs/1638-3.PDF

I-11.5. Metric: Treatment Preferences (NQF – 1641) - Percentage of patients with chart documentation of preferences for life sustaining treatments.

a. Numerator: Patients whose medical record includes documentation of life sustaining preferences
b. Denominator: Seriously ill patients enrolled in hospice OR receiving specialty palliative care in an acute hospital setting.
c. Rationale/Evidence: Patients with comprehensive medical records especially EHR fair better than those with less such care coordination
d. Exclusion: Patients with length of stay 1 day in palliative care or 7 days in hospice

I-12. Milestone: Implement a patient/family experience survey regarding the quality of care, pain and symptom management, and degree of patient/family centeredness in care and improve scores over time

I-12.1. Metric: Survey developed and implemented; scores increased over time

a. Result of survey scores
b. Data Source: Patient/family experience survey
c. Rationale/Evidence: Palliative care has been proven to result in increased patient and family satisfaction.[165]

165 See a Kaiser study linking palliative care and patient satisfaction, at http://www.kaisersantarosa.org/palliativecarestudy

I-13. Milestone: Administer the CARE survey (NQF-1632) - The CARE survey is mortality follow back survey that is administered to the bereaved family members of adult persons (age 18 and older) who died of a chronic progressive illness receiving services for at least 48 hours from a home health agency, nursing homes, hospice, or acute care hospital.

I-13.1. Metric: CARE- Consumer Assessment and Reports of End of Life

a. Numerator: Respondent reports of concerns with the quality of care, their self-efficacy in basic tasks of caregiving, or unmet needs that indicate an opportunity to improved end of life care provided by either a nursing home, hospital, hospice, or home health agency.

b. Denominator: Non-traumatic deaths and deaths from chronic progressive illnesses based on ICD 9/10 codes are included. A list will be provided as technical appendix to the proposed survey. Note the survey is for only persons that died with the following services or location of care: nursing home, hospital, hospice, or home health agency

c. Exclusion: deaths due to accidents, trauma, during surgery, lethal injection, acute overwhelming infections, and from complications of pregnancy.

d. Rationale/Evidence: The survey measures perceptions of the quality of care in terms of unmet needs, family reports of concerns with quality of care, and overall rating of the quality of care. The time frame is the last 2 days of life up to last week of life spent in a hospice, home health agency, hospital, or nursing home. The survey is based on structured literature review,(1) cognitive testing,(2) pre-test,(2) and national survey of the quality of end of life care.(3) The conceptual model is patient-focused, family-centered care(1) that posits that high quality care at the end of life is obtained when health care institutions: [166]

- provide the desired level of symptom palliation and emotional support;
- treat the patient with respect;
- promote shared decision making;
- attend to the needs of caregivers for information and skills in providing care for the patient;
- provide emotional support to the family before and after the patient's death; and

166 1. Teno JM, Casey VA, Welch L, Edgman-Levitan S. Patient-Focused, Family-Centered End-of-Life Medical Care: Views of the Guidelines and Bereaved Family Members. J Pain Symptom Manage-Special Section on Measuring Quality of Care at Life´s End II. 2001 Sep 2001; 22(3):738-751. 2. Teno JM, Clarridge B, Casey V, Edgman-Levitan S, Fowler J. Validation of Toolkit After-Death Bereaved Family Member Interview. J Pain Symptom Manage. 2001 Sep 2001; 22(3):752-758. 3. Teno JM, Clarridge BR, Casey V, et al. Family perspectives on end-of-life care at the last place of care. JAMA. 2004 Jan 7 2004; 291(1):88-93. 4. Rhodes RL, Mitchell SL, Miller SC, Connor SR, Teno JM. Bereaved family members´ evaluation of hospice care: what factors influence overall satisfaction with services? J Pain Symptom Manage. 2008 Apr 2008; 35(4):365-371. 5. Mitchell SL, Kiely DK, Miller SC, Connor SR, Spence C, Teno JM. Hospice care for patients with dementia. J Pain Symptom Manage. 2007 Jul 2007; 34(1):7-16. 6. Rhodes RL, Teno JM, Connor SR. African American bereaved family members´ perceptions of the quality of hospice care: lessened disparities, but opportunities to improve remain. J Pain Symptom Manage. 2007 Nov 2007; 34(5):472-479. 7. Connor SR, Teno J, Spence C, Smith N. Family Evaluation of Hospice Care: Results from Voluntary Submission of Data Via Website. J Pain Symptom Manage. 2005 Jul 2005; 30(1):9-17.

- coordinates care across settings of care and health care providers.

I-14. Milestone: Improvements in palliative care services using innovative project option. The following metrics are suggested for use with an innovative project option to increase access to palliative care services but are not required.

I-14.1. Metric: Target population reached through palliative care program

a. Numerator: Number of individuals of target population reached by the palliative care program.

b. Denominator: Number of individuals in the target population.

c. Data Source: Documentation of target population reached, as designated in the project plan.

d. Rationale/Evidence: This metric speaks to the efficacy of the innovative project in reaching its targeted population.

I-14.2. Metric: Improved access to palliative care services for residents of communities that did not have such services locally before the program. Demonstrate improvement over prior reporting period.

a. Total number of unique patients encountered for the reporting period.

b. Data Source: Registry, EHR, claims or other Performing Provider source

c. Rationale/Evidence: This measures the increased volume of visits and is a method to assess the ability for the Performing Provider to increase capacity to provide care.

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]

b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

2.11 **Conduct Medication Management**

Project Goal:
The goal of **c**onducting Medication Management is to provide information that facilitates the appropriate use of medications in order to control illness and promote health[167]. Medication management is the monitoring of medications a patient takes to confirm that the patient is complying with a medication regimen, while also ensuring the patient is avoiding potentially dangerous drug interactions and other complications. This is especially important for patients taking large numbers of medications to address chronic illnesses and multiple diseases. Taking numerous medications is known as polypharmacy and it is particularly common among older adults, as they are more likely to need medications to manage an array of chronic conditions.

There are a number of aspects to medication management, all of which are focused on making sure that medications are used appropriately. Keeping track of all of the medications currently in use by a patient is an important part of medication management. This can include creating printed lists describing medications, their dosages, and how they are being used. These lists can be kept in patient charts and provided to patients to help them track the drugs they use and understand why various medications are being prescribed.

Monitoring medication administration is also key. Medications usually need to be taken in specific doses at set intervals. Missing doses or timing doses incorrectly can cause complications. Medication management can include everything from using devices that issue reminders to patients to take their medications to filling pill cases for patients and marking the lid of each compartment to indicate when the contents need to be taken[168].

The specific purpose of this project area is to provide the platform to conduct Medication Management so that patients receive the right medications at the right time across the Performing Provider in order to reduce medication errors and adverse effects from medication use.

Project Options:

2.11.1 Implement interventions that put in place the teams, technology, and processes to avoid medication errors

Required core project components:

- **a)** Develop criteria and identify targeted patient populations; e.g. chronic disease patient populations that are at high risk for developing complications, co-morbidities, and/or utilizing acute and emergency care services.
- **b)** Develop tools to provide education and support to those patients at highest risk of an adverse drug event or medication error.
- **c)** Conduct root cause analysis of potential medication errors or adverse drug events and develop/implement processes to address those causes

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167 The Patient-Centered Medical Home: Integrating Comprehensive Medication Management to Optimize Patient Outcomes. 2nd ed, 2012.
168 http://www.wisegeek.com/

d) Conduct quality improvement for project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, identifying "lessons learned," opportunities to scale all or part of the project to a broader patient population, and identifying key challenges associated with expansion of the project, including special considerations for safety-net populations.

2.11.2 Evidence-based interventions that put in place the teams, technology and processes to avoid medication errors. This project option could include one or more of the following components:

a) Implement a medication management program that serves the patient across the continuum of care targeting one or more chronic disease patient populations

b) Implement Computerized Physician Order Entry (CPOE)

c) Implement pharmacist-led chronic disease medication management services in collaboration with primary care and other health care providers.

2.11.3 "Other" project option: Implement other evidence-based project to conduct medication management in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project. Milestone I-20 includes suggestions for improvement metrics to use with this innovative project option.

Note: All of the project options in project area 2.11 should include a component to conduct quality improvement for the project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, "lessons learned," opportunities to scale all or part of the project to a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations.

Rationale:

More than 3.5 billion prescriptions are written annually in the United States[169], and four out of five patients who visit a physician leave with at least one prescription[170]. Medications are involved in 80 percent of all treatments and impact every aspect of a patient's life. The two most commonly identified drug therapy problems in patients receiving comprehensive medication management services are: (1) the patient requires additional drug therapy for prevention, synergistic, or palliative care; and (2)the drug dosages need to be titrated to achieve therapeutic levels that reach the intended therapy goals[171].According to the World Health Organization, adherence to therapy for chronic diseases in developed countries averages 50 percent, and the major consequences of poor adherence to therapies are poor health outcomes and increased health care costs[172].Drug therapy problems occur every day and add substantial costs to the health care system. Drug-related morbidity and mortality costs exceed

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169 Sommers JP. Prescription drug expenditures in the10 largest states for persons under age 65, 2005.2008. Agency for Healthcare Research and Quality. Available at: http://meps.ahrq.gov/mepsweb/data_files/publications/st196/stat196.pdf.
170 The chain pharmacy industry profile. National Association of Chain Drug Stores. 2001.
171 Cipolle R, Strand L, Morley P. Pharmaceutical care practice: The clinician's guide. McGraw-Hill; 2004.
172 World Health Organization. Adherence to long-term therapies: Evidence for action. 2003. Available at: http://whqlibdoc.who.int/publications/2003/9241545992.pdf.

$200 billion annually in the U.S., exceeding the amount spent on the medications themselves[173]. The Institute of Medicine noted that while only 10 percent of total health care costs are spent on medications, their ability to control disease and impact overall cost, morbidity, and productivity—when appropriately used—is enormous[174].

Process Milestones:

P-1. Milestone: Implement/expand a medication management program and/or system

- P-1.1. Metric: Program elements
  - a. Documentation of program, including people, processes and technologies
  - b. Data Source: Written medication management plan including workflow for providers.
  - c. Rationale/Evidence: A delivery system with a written medication management plan that is consistently followed by all providers can reduce medication errors and increase patient compliance with their medication regimens.

P-2. Milestone: Develop criteria and identify targeted patient populations

- P-2.1. Metric: Establish evidence based criteria for medication management planning in target population based on assessment of population needs
  - a. Documentation of medication management program criteria
  - b. Data Source: Written criterion for target population and program participation.
  - c. Rationale/Evidence: Establishment of guidelines for identifying target population and criteria for program participation in the medication management program will allow for a more systematic adoption and integration into clinical processes.
- P-2.2. Metric: Written medication management plan(s)
  - a. Numerator: Number of patients in targeted patient population that consistently receive medication management counseling.
  - b. Denominator: Number of patients in targeted patient population
  - c. Data Source: Paper or electronic health record citing medication management counseling provided; medication reconciliation documented in paper or electronic health record
  - d. Rationale/Evidence: Patients in targeted population who consistently receive medication management counseling and medication reconciliation are more likely to consistently adhere to their medication regimen and maintain better control of their medical condition.

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173 Johnson J, Bootman JL. Drug-related morbidity and mortality. Arch Intern Med. 1995; 155(18):1949-1956; Johnson JA, Bootman JL. Drug-related morbidity and mortality. Am J Health Syst Pharm. 1997; 54(5):554-558; Ernst, FR, Grizzle AJ. Drug-related morbidity and mortality: Updating the cost-of-illness model. J Am Pharm Assoc. 2001; 41(2):192-199.
174 Centers for Medicare & Medicaid Services. National Health Expenditures. January 2008.

P-3. Milestone: Develop and utilize medication management tools to provide education to patients with cognitive impairment, low health literacy and/or limited English proficiency[175]

P-3.1. Metric: Identify and utilize evidence based health literacy assessment to guide clinical recommendations and patient education.

a. Documentation of assessment tool and use in clinical processes.

b. Data Source: Evidence based assessment tools used, policies and procedures around how findings are integrated into patient care.

c. Rationale/Evidence: Health literacy is the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions. As an example of evidence based tools, AHRQ-funded researchers have developed two tools (REALM-SF and SAHLSA-50 for Spanish-speaking patients) to measure—individuals' reading comprehension in a medical context which is an aspect of health literacy. These tools can be used for research, clinical, or program planning purposes.[176]

P-3.2. Metric: Increase the number of patients with cognitive impairment, low health literacy and/or limited English proficiency who receives appropriate medication management tools.

a. Numerator: Number of patients with cognitive impairment, low health literacy and/or limited English proficiency who receive appropriate medication management tools.

b. Data source: Electronic or Paper Medical Record

c. Rationale: Patients with cognitive impairment, low health literacy and/or limited English proficiency have worst health outcomes. Low health literacy correlates with improper use of medication. Many tools have been developed to help mitigate these factors.

P-4. Milestone: Implement an evidence based program based on best practices for medication reconciliation to improve medication management and continuity between acute care and ambulatory setting.

P-4.1. Metric: Written plan to provide medication reconciliation as part of the transition from acute care to ambulatory care

a. Documentation of program policies and procedures that ensure medication reconciliation upon admission and discharge at each care setting for all patients.

b. Data Source: Medication Management Plan

c. Rationale/Evidence: Patients who receive medication reconciliation as part of the transition from acute to ambulatory care are more likely to have and adhere to an appropriate medication regimen.

P-5. Milestone: Implement a medication refill process

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175 http://www.ama-assn.org/ama1/pub/upload/mm/433/wessel-0410.pdf

176 http://www.ahrq.gov/populations/sahlsatool.htm

P-5.1. Metric: A written medication refill process including workflow for all providers involved in the medication refills (may be designated for a given medication (e.g., Plavix) or conditions/diagnosis (e.g., transient ischemic attack)).

a. Numerator: The number of patients empanelled to the clinic (who are on medication X or have condition A) who adhere to the medication refill process

b. Denominator: The total number of patients empanelled to the clinic (who are on medication X or have condition A).

c. Data Source: Clinic records of patient calls and/or patient's paper or electronic health record. Alternatively, it may be easier to track patients who do not adhere to the new refill process by having the chart flagged when the patient calls/does not follow protocol. The hospital can use pharmacy data to get the total number of patients from the clinic who refilled a given medication that month.

d. Rationale/Evidence: A delivery system with a standard medication refill process that is consistently adhered to will be more likely to provide the right medications at the right time for their patients.

P-6. Milestone: Develop health information technology claims-based algorithms to identify patients in need of medication reconciliation, management or education. Such algorithms typically search historical claims for the physician billing for the most recent claims with an evaluation and management (E&M) code or pharmacy claim, or the largest share of E&M visits for the patient[177]. Claims-based approaches are expeditious because the insurer avoids the costs of collecting information from patients and physicians.

P-6.1. Metric: Documented HIT claims-based algorithms to identify patients in need of medication reconciliation, management or education.

a. Data source: Electronic Health Record

b. Rationale/Evidence: Health information technology has been shown to improve quality of care by increasing adherence to guidelines, supporting disease surveillance and monitoring, and decreasing medication errors through decision support and data aggregation capabilities.[178]

P-7. Milestone: Implement Computerized Provider Order Entry (CPOE) to allow providers to enter medical orders directly via computer, replacing the more traditional paper, verbal, telephone, and fax methods.

P-7.1. Metric: create a system to implement CPOE

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177 Rosenblatt, Roger A., et al., "The Generalist Role of Specialty Physicians: Is There a Hidden System of Primary Care?" Journal of the American Medical Association, Vol. 279, No. 17 (May 6, 1998).

178 Chaundry et al., 2007

a. Data source: documentation of plan
b. Rationale: Ambulatory CPOE (ACPOE), which refers to CPOE in outpatient settings, allows providers to place electronic orders for medications.

P-8. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-8.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-8.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.

a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-9. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.

P-9.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.

a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals
b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-10. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.

P-10.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.
a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-10.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.
a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]

P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]
a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
b. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Measures:

I-8. Milestone: Identify patients with chronic disease who receive medication management in their discharge instructions appropriate for their chronic disease.

I-8.1. Metric: X percent increase of patients with chronic disease who receive appropriate disease specific medication management

a. Numerator: Number of patients with a chronic medical condition who receive medication management instruction at discharge

b. Denominator: total number of patients with the respective chronic medical condition

c. Data source: Chronic disease registry and hospital EHR

d. Rationale/evidence: Targeted patients who consistently receive medication management are more likely to adhere to their medication regime and receive the right medication at the right time.

I-9. Milestone: Manage medications for targeted patients

I-9.1. Metric: Increase the number of patients (meeting criteria for chronic condition) contacted or receiving medication management

a. Numerator: Number of patients that consistently receive medication management counseling at the point of care

b. Denominator: Number of patients in targeted panel size/patient population (targeted as defined by Performing Provider)

c. Data Source: Paper or electronic health record

d. Rationale/Evidence: Targeted patients who consistently receive medication management are more likely to adhere to their medication regime and receive the right medication at the right time.

I-10. Milestone: Increase patient understanding of their medication reconciliation measures pre-med management and post-med management. Use validated medication understanding and self-efficacy tools to measure the impact of the medication reconciliation.

I-10.1. Metric: Average change in pre and post intervention scores of patient knowledge.

a. Numerator: Sum of change scores for all patients receiving a pre and post intervention assessment.

b. Denominator: Number of patients that received both a pre and post intervention assessment.

c. Data Source: EHR, Program records.

d. Rationale/Evidence[179]: Patient misunderstanding of prescription medication instructions has been identified as both a patient safety and a health literacy concern. Patients often misunderstand the proper dosage of the medication as well as misunderstand the warnings associated with the medication. Medication errors and injuries often result from patients' unintentional misuse of or non-adherence to prescription medication. Among other factors, health literacy and self-efficacy have been repeatedly recognized as predictors in one's ability to understand medication instructions and ultimately to adhere to medication regimens.

I-11. Milestone: Increase the number of patients receiving medication management from acute care to the ambulatory setting

I-11.1. Metric: Percent of discharged patients who received medication reconciliation as part of the transition from acute to ambulatory care

a. Numerator: Number of discharged patients who received medication reconciliation

b. Denominator: Number of discharged patients

c. Data: electronic health records; discharge data;

d. Rationale/Evidence: Patients who receive medication reconciliation as part of the transition from acute to ambulatory care are more likely to have and adhere to an appropriate medication regimen.

179 http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3184839/

I-12. Milestone: Implement electronic prescription writing at the point of care

I-12.1. Metric: Increase the number of new and refill prescriptions written and generated electronically

a. Numerator: Number of new and refill prescriptions written and generated electronically

b. Denominator: Number of new and refill prescriptions written in a specific time period

c. Data Source: Paper or electronic health record

d. Rationale/Evidence: If consistently and completely used, electronic prescribing has the potential to reduce medication errors and increase patient compliance with their medication regimen.

I-13. Milestone: Implement electronic medication reconciliation at the point of care

I-13.1. Metric: Increase the number of patients that receive electronic medication reconciliation at the point of care

a. Numerator: Number of patients in panel size/population size that receive electronic medication reconciliation at the point of care

b. Denominator: Number of patients in panel size/population size

c. Data Source: Paper or electronic health record

d. Rationale/Evidence: Implementing electronic medication reconciliation can help ensure that providers consistently deliver accurate medication reconciliation at the point of care.

I-14. Milestone: Provide reconciliation of medications at discharge

I-14.1. Metric: Increase number or percent of identified patients that have medications reconciled as a standard part of the discharge process.

a. Numerator: Number of targeted patients with medications reconciled (targeted TBD by Performing Provider) when discharged from a hospitalization.

b. Denominator: Total number of targeted patients hospitalized during a specific time period.

c. Data Source: Discharge paperwork from paper or electronic health record.

d. Rationale/Evidence: Consistently providing medication reconciliation at the time of discharge from a hospitalization enhances the likelihood of patients adhering to an appropriate medication regimen and allows for the reduction of medication errors that may result from the lack of medication reconciliation when a patient transitions from one care setting to another.

I-15. Milestone: Increase number or percent of patients that receive consultation by clinical pharmacists , prior to discharge in the in-patient setting and upon refilling a new prescription in the outpatient setting.

I-15.1. Metric: X% of patients receiving consultation by clinical pharmacists

a. Numerator: Number of targeted patients covered by clinical pharmacists (targeted TBD by Performing Provider)

b. Denominator: Total number of targeted patients

c. Data Source: Paper or Electronic health record indicating patient is assigned to a clinical pharmacist. Appointment records for clinical pharmacy.

d. Rationale: Clinical pharmacists are more likely to obtain detailed and accurate patient's medical history and keep better record of patient's medications than doctors

I-16. Milestone: Improvement in selected clinical measures in target population

I-16.1. Metric: TBD by Performing Provider Percent of patients who have shown improvement in selected clinical measures (e.g., blood pressure or LDL-cholesterol) in targeted patient population

a. Numerator: Number of patients that have shown improvement (as defined by their provider) in a selected clinical measure compared to their baseline measures over a defined period of time.

b. Denominator: Number of patients in panel/targeted sample size.

c. Rationale/Evidence: Patients and providers that set mutually agreed upon goals over a defined period of time are more likely to monitor the patient's progress in a consistent manner and intervene appropriately when a patient is not making progress towards their goals.

I-17. Milestone: Increase the number of patient visits for which a medication is prescribed that have medication reconciliation and prescription generation performed electronically

I-17.1. Metric: Percent of patient visits at which a medication was prescribed that had medication reconciliation and prescription generation performed electronically

a. Numerator: Number of patient visits for which a medication is prescribed have medication reconciliation and prescription generation performed electronically

b. Denominator: Total number of eligible patient visits (eligible as defined by the Performing Provider)

c. Data source: Electronic health record

d. Rationale: Patients are most at risk during transitions in care across settings, services, providers, or levels of care; Development, reconciliation & communication of an accurate medication list throughout the continuum of care is essential in the reduction of transition-related adverse drug events

I-18. Milestone: CPOE utilization measure

I-18.1. Metric: Increase the number of computerized provider order entries

a. Numerator: number of entry orders per patient

b. Denominator: total number of patients in the system

c. Data source: electronic health record, computerized provider order entry (CPOE) platform

d. Rationale: Computerized provider order entry (CPOE) holds promise to improve the safety and efficiency of medication and test ordering processes by reducing order entry errors. Order entry errors can occur, for example, when providers order medications that adversely interact with medications the patient is already taking or when duplicate tests or procedures are ordered due to incomplete information in a patient's medical record. CPOE, if implemented and used correctly, can automatically check for many such potential errors, helping to avoid potentially hazardous drugs or unnecessary tests and procedures. In contrast, verbal and written order entry processes, without systematic integration of patients' medical information, may result in order entry errors that pose a serious threat to patient safety and reduce health care efficiency.

I-19. Milestone: NQF endorsed measures

I-19.1. Metric: Proportion of Days Covered (PDC): 5 Rates by Therapeutic Category

a. The percentage of patients 18 years and older who met the proportion of days covered (PDC) threshold of 80% during the measurement year. A performance rate is calculated separately for the following medication categories: Beta-Blockers (BB), Angiotensin-Converting Enzyme Inhibitor/Angiotensin-Receptor Blocker (ACEI/ARB), Calcium-Channel Blockers (CCB), Diabetes Medication, Statins.

b. Data Source: pill counts, patient reports, or pharmacy claims data

c. Rationale/Evidence: The proportion of days covered (PDC) is a newer method than the MPR but has been studied extensively in recent years. The PDC tends to be operationally defined more consistently than is the MPR. The PDC calculation is based on the fill dates and days' supply for each fill of a prescription; however, it differs from the MPR in that the PDC is not a simple summation of the days' supply.[180]

I-19.2. Metric: Adherence to Chronic Medications: Medication Possession Ratio (MPR) for chronic medications for individuals over 18 years of age [NQF0542]

a. Numerator: The sum of the days' supply that fall within the measurement window for each class of chronic medications for each patient in the denominator. For each beneficiary, several MPRs may be calculated, one for each drug class for which the beneficiary has at least one fill. Time window: Anytime during the measurement period (12 consecutive months)

b. Denominator: Part D beneficiaries with at least one claim for any active ingredient within a drug class. Time window: Anytime during the measurement period (12 consecutive months). MPR Denominator:

- New users: Number of days from the first prescription to the end of measurement period.
- Continuous users: Number of days from the beginning to the end of the measurement period.

c. Exclusions:

- Patients who died during the measurement period.
- Patients who are actively enrolled in multiple plans concurrently as of the end of the measurement period.
- Patients who have a zero or missing value for days' supply on any Part D claim for any active ingredient in a drug class listed.
- Patients with two or more prescriptions within the same class on the same date of service.

180 http://www.urac-amcp.org/URAC_AMCP_Winter_2011_%28web%29.pdf

I-19.3. Metric: Medication Reconciliation Post-Discharge (MRP)

a. Percentage of discharges from January 1 to December 1 of the measurement year for patients 65 years of age and older for whom medications were reconciled on or within 30 days of discharge.

b. Numerator: Medication reconciliation conducted by a prescribing practitioner, clinical pharmacist or registered nurse, as documented through administrative or medical record review on or within 30 days of discharge. Medication reconciliation is defined as a type of review in which the discharge medications are reconciled with the most recent medication list in the outpatient medical record, on or within 30 days after discharge.

c. Denominator: All discharges from an in-patient setting for health plan members who are 66 years and older as of December 31 of the measurement year.

d. Exclusion: Exclude both the initial discharge and the readmission/direct transfer discharge if the readmission/direct transfer discharge occurs after December 1 of the measurement year. If the discharge is followed by a readmission or direct transfer to an acute or non-acute facility within the 30-day follow-up period, count the only the readmission discharge or the discharge from the facility to which the member was transferred.

I-20. Milestone: Improvements in medication management for patients receiving services using innovative project option. The following metrics are suggested for use with an innovative project option to increase access to medication management services but are not required.

I-20.1. Metric: Target population reached through medication management program

a. Numerator: Number of individuals of target population reached by the medication management program.

b. Denominator: Number of individuals in the target population.

c. Data Source: Documentation of target population reached, as designated in the project plan.

d. Rationale/Evidence: This metric speaks to the efficacy of the innovative project in reaching its targeted population.

<u>Customizable Improvement Milestone I-X</u>: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]

b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

2.12 Implement/Expand Care Transitions Programs

Project Goal:
The goal of this project is to implement improvements in care transitions and coordination of care from inpatient to outpatient, post-acute care, and home care settings in order to prevent increased health care costs and hospital readmissions. Care transitions refer to the movement of patients from one health care provider or setting to another. For people with serious and complex illnesses, transitions in setting of care—for example from hospital to home or nursing home, or from facility to home- and community-based services—have been shown to be prone to errors.[181] Safe, effective, and efficient care transitions and reduced risk of potentially preventable readmissions require cooperation among providers of medical services, social services, and support services in the community and in long-term care facilities. High-risk patients often have multiple chronic diseases. The implementation of effective care transitions requires practitioners to learn and develop effective ways to successfully manage one disease in order to effectively manage the complexity of multiple diseases.[182]The discontinuity of care during transitions typically results in patients with serious conditions, such as heart failure, chronic obstructive pulmonary disease, and pneumonia, falling through the cracks, which may lead to otherwise preventable hospital readmission. [183]The goal is to ensure that the hospital discharges are accomplished appropriately and that care transitions occur effectively and safely.

Project Options:

2.12.1 Develop, implement, and evaluate standardized clinical protocols and evidence-based care delivery model to improve care transitions
Required core project components:

- **a)** Review best practices from a range of models (e.g. RED, BOOST, STAAR, INTERACT, Coleman, Naylor, GRACE, BRIDGE, etc.).
- **b)** Conduct an analysis of the key drivers of 30-day hospital readmissions using a chart review tool (e.g. the Institute for Healthcare Improvement's (IHI) State Action on Avoidable Re-hospitalizations (STAAR) tool) and patient interviews.
- **c)** Integrate information systems so that continuity of care for patients is enabled
- **d)** Develop a system to identify patients being discharged potentially at risk of needing acute care services within 30-60 days
- **e)** Implement discharge planning program and post discharge support program
- **f)** Develop a cross-continuum team comprised of clinical and administrative representatives from acute care, skilled nursing, ambulatory care, health centers, and home care providers.
- **g)** Conduct quality improvement for project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, identifying "lessons learned," opportunities to scale all or

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181Coleman EA. "Falling Through the Cracks: Challenges and Opportunities for Improving Transitional Care for Persons with Continuous Complex Care Needs." Journal of the American Geriatrics Society (2003) 51:549-555
182 Rittenhouse D, Shortell S, et al. "Improving Chronic Illness Care: Findings from a National Study of Care Management Processes in Large Physician Practices." Medical Care Research and Review Journal (2010) 67(3): 301-320
183 Coleman, E., Parry, C., et. al. "The Care Transitions Intervention: a patient centered approach to ensuring effective transfers between sites of geriatric care." Home Health Care Serv Q (2003) 22 (3): 1-17

part of the project to a broader patient population, and identifying key challenges associated with expansion of the project, including special considerations for safety-net populations.

2.12.2 Implement one or more pilot intervention(s) in care transitions targeting one or more patient care units or a defined patient population. Examples of interventions include, but are not limited to, implementation of:

- Discharge checklists
- "Hand off" communication plans with receiving providers
- Wellness initiatives targeting high-risk patients
- Patient and family education initiatives including patient self-management skills and "teach-back"
- Post-discharge medication planning
- Early follow-up such as homecare visits, primary care outreach, and/or patient call-backs.

2.12.3 "Other" project option: Implement other evidence-based project to implement/expand care transitions program in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project. Milestone I-15 includes suggestions for improvement metrics to use with this innovative project option.

Note: All of the project options in project area 2.12 should include a component to conduct quality improvement for the project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, "lessons learned," opportunities to scale all or part of the project to a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations.

Note: Providers selecting one of these project options should ensure that overlaps do not exist with the EHR Incentive Program or other available demonstration funding.

Rationale[184]:

When a patient's transition is less than optimal, the repercussions can be far-reaching — hospital readmission, an adverse medical event, and even mortality. Without sufficient information and an understanding of their diagnoses, medication, and self-care needs, patients cannot fully participate in their care during and after hospital stays. Additionally, poorly designed discharge processes create unnecessary stress for medical staff causing failed communications, rework, and frustrations. A comprehensive and reliable discharge plan, along with post-discharge support, can reduce readmission rates, improve health outcomes, and ensure quality transitions. Patient transition is a multidimensional concept and may include transfer from the hospital to home, or nursing home, or from facility to home- and community-based services, etc.

Process Milestones:

184 http://www.ihi.org/offerings/Training/ReduceReadmissions/July2011ReducingReadmissions/Pages/default.aspx

P-1. Milestone: Develop or implement best practices or evidence-based protocols (such as Partnership for Patients) for effectively communicating with patients and families during and post-discharge to improve adherence to discharge and follow-up care instructions

P-1.1. Metric: Care transitions protocols

a. Submission of protocols

b. Data Source: Submission of protocols, Care transitions program materials

c. Rationale/Evidence: Protocols for discharge planning and post discharge follow-up will allow for wider and more affective system adoption of new practices.

P-2. Milestone: Implement standardized care transition processes

P-2.1. Metric: Care transitions policies and procedures

a. Submission of protocols,

b. Data Source: Policies and procedures of care transitions program materials

c. Rationale/Evidence: In order to allow for system adoption of care transition processes, it is critical to develop policies and procedures identifying responsible parties, activities, timelines and anticipated outcomes related to a successful discharge and follow-up care.

P-3. Milestone: Establish a process for hospital-based case managers to follow up with identified patients hospitalized related to the top chronic conditions to provide standardized discharge instructions and patient education, which address activity, diet, medications, follow-up care, weight, and worsening symptoms; and, where appropriate, additional patient education and/or coaching as identified during discharge

P-3.1. Metric: Care transitions protocols

a. Submission of protocols,

b. Data Source: Care transitions program materials

c. Rationale/Evidence: Patient education around discharge and transitional care will ensure that patients, family members and other care givers are empowered and better able to self-manage follow-up care.

P-4. Milestone: Conduct an assessment and establish linkages with community-based organizations to create a support network for targeted patients post-discharge

P-4.1. Metric: Care transitions assessment

a. Submission of care transitions assessment and resource planning documents
b. Data Source: Care transitions assessment and resource planning documents
c. Rationale/Evidence: It is important to try to coordinate care with facilities outside a provider's own delivery system so that patients going in and out of the delivery system can receive optimal care, wherever possible. The Community Based Care Transitions Program is an example of this innovative work. [185]

P-5. Milestone: Using a validated risk assessment tool, create a patient identification system.
P-5.1. Metric: Patient stratification system

a. Data Source: Submission of risk assessment tool and patient stratification report and description of provider utilization of report findings.
b. Rationale/Evidence: This process is designed to identify patients requiring care management and to accommodate a quicker allocation of resources to those patients with high-risk health care needs

P-6. Milestone: Train/designate more ED case managers
P-6.1. Metric: Number of trained and/or designated ED case managers over baseline
a. Number of ED case managers trained
b. Data Source: HR, job descriptions, training curriculum
c. Rationale/Evidence: Employing ED case managers will allow for better access for those patients using ED services for post-discharge care.

P-7. Milestone: Develop a staffing and implementation plan to accomplish the goals/objectives of the care transitions program
P-7.1. Metric: Documentation of the staffing plan.
a. Data Source: Staffing and implementation plan.
b. Rationale/Evidence: This describes the number and types of staff needed and the specific roles of each participant

P-8. Milestone: Improve discharge summary timeliness.
P-8.1. Metric: Improve percent discharge summary completion within 48 hours of discharge.

185 http://www.innovations.cms.gov/resources/CCTP_HowtoApply.html)

a. Numerator: Number of patients for which discharge summary is complete within 48 hours of discharge.
b. Denominator: Number of patients discharged
c. Data Source: Automated report from Health Information Services or other
d. Rationale/Evidence: This process ensures that all providers are informed around impatient treatment as well as post acute care plans.

P-9. Milestone: Implement a case management related registry

P-9.1. Metric: Documentation of registry implementation

a. Data source: Registry reports demonstrating case management functionality.
b. Rationale/Evidence: Implementation of proactive and seamless case management services will improve patient outcomes around patient discharge and ensure better coordinated care transitions.

P-10. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-10.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-10.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.

a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-11. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim

measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.

P-11.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.

a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals

b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-12. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.

P-12.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.

a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-12.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.

a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]

P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
b. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones:

I-10. Milestone: Identify the top chronic conditions (e.g., heart attack, heart failure and pneumonia) and other patient characteristics (e.g., medical home assignment and demographics such as age) or socioeconomic factors (e.g., homelessness) that are common causes of avoidable readmissions

I-10.1. Metric: Identification and report of those conditions, socioeconomic factors, or other patient characteristics resulting in highest rates of re-admissions.

a. List by frequency of most prevalent chronic conditions, patient factor or other socioeconomic factors in patient panel resulting in highest re-admission rates.
b. Data Source: Registry or EHR report/analysis
c. Rationale/Evidence: Assessing the most prevalent conditions and factors that lead to re-admissions will allow the provider to address the needs of the patient population more effectively.

I-11. Milestone: Improve the percentage of patients in defined population receiving standardized care according to the approved clinical protocols and care transitions policies

I-11.1. Metric: Number over time of those patients in target population receiving standardized, evidence-based interventions per approved clinical protocols and guidelines

a. Numerator: Number of patients that receive all recommended education, care and services as dictated by approved and evidence based care guidelines.
b. Denominator: Number of patients discharged or eligible for care transition services
c. Data Source: Registry or EHR report/analysis

I-12. Milestone: Reduce the percentage of high users of ED services with ambulatory care sensitive conditions[186]

I-12.1. Metric: Identify high users with ambulatory care sensitive conditions.

a. Numerator: Number of high users with ambulatory sensitive conditions identified for care transitions program

b. Denominator: Number of high users with ambulatory sensitive conditions

c. Data source: care transitions program registry, claims, EHR or other provider records

I-13. Milestone: Increase the number or percent of patients in the case management related registry

I-13.1. Metric: Increase in the number or percentage of patients in the case management related registry; patients may be targeted from ED and inpatient areas

a. Numerator: Number of unique patients in the registry.

b. Denominator: Number of targeted patients

c. Data Source: EHR, claims, registry or other program documents

I-14. Milestone: Implement standard care transition processes in specified patient populations.

I-14.1. Metric: Measure adherence to processes.

a. Numerator: Number of patients in defined population receiving care according to standard protocol.

b. Denominator: Number of population patients discharged.

c. Data Source: Hospital administrative data and the patient medical record.

186 Admissions for ambulatory sensitive conditions are gaining more attention as an important prevention quality indicator tied to reliable primary care

I-15. Milestone: Improve care transitions using innovative project option. **Note, all providers must report on Metric I-15.1 and I-15.2 listed below for this project option. Hospitals must report on all metrics listed below I-15.

I-15.1. Metric: Increase percentage of target population reached.

a. Numerator: Number of individuals of target population reached by the innovative project.

b. Denominator: Number of individuals in the target population.

c. Data Source: Documentation of target population reached, as designated in the project plan.

d. Rationale/Evidence: This metric speaks to the efficacy of the innovative project in reaching it targeted population.

I-15.2. Metric: Evaluate the intervention(s):

a. Numerator: number of patients transitioned by type of transition

b. Denominator: total number of patients transitioned

c. Data source: data file of all transitioned patients in one year

d. Rationale: identify "lessons learned," opportunities to later scale all or part of the intervention(s) to a broader patient population, and identify key challenges associated with expansion of the intervention(s), including special considerations for safety-net populations

I-15.3. Metric: (NQF 0648): Percentage of patients, regardless of age, discharged from an inpatient facility to home or any other site of care for whom a transition record was transmitted to the facility or primary physician or other health care professional designated for follow-up care within 24 hours of discharge

a. Numerator: Patients for whom a transition record was transmitted to the facility or primary physician or other health care professional designated for follow-up care within 24 hours of discharge
Time Window: Each time a patient is discharged from an inpatient facility

b. Denominator: All patients, regardless of age, discharged from an inpatient facility (e.g., hospital inpatient or observation, skilled nursing facility, or rehabilitation facility) to home/self care or any other site of care
Time Window: Each time a patient is discharged from an inpatient facility

c. Data Source: EHR

d. Rationale/Evidence: By requiring the completion and prompt transmission of a detailed "transition record" for discharged patients, this measure is promoting a significant enhancement to the customary use of the "discharge summary," the traditional means of information transfer for which existing standards require completion within 30 days. Numerous studies have documented the prevalence of communication gaps and discontinuities in care for patients after discharge, and the significant effect of these lapses on hospital readmissions and other indicators of the quality of transitional care. Current information and communication technology can facilitate the routine completion and transmission of a transition record within 24 hours of discharge, which could greatly reduce communication gaps and may have a positive downstream effect on patient outcomes.

I-15.4. Metric: (NQF 0649): Percentage of patients, regardless of age, discharged from an emergency department (ED) to ambulatory care or home health care, or their caregiver(s), who received a transition record at the time of ED discharge including, at a minimum, all of the specified elements

a. Numerator: Patients or their caregiver(s) who received a transition record at the time of emergency department (ED) discharge including, at a minimum, all of the following elements:
   - Major procedures and tests performed during ED visit, AND
   - Principal diagnosis at discharge OR chief complaint, AND
   - Patient instructions, AND
   - Plan for follow-up care (OR statement that none required), including primary physician, other health care professional, or site designated for follow-up care, AND
   - List of new medications and changes to continued medications that patient should take after ED discharge, with quantity prescribed and/or dispensed (OR intended duration) and instructions for each.

b. Denominator: All patients, regardless of age, discharged from an emergency department (ED) to ambulatory care (home/self care) or home health care.

c. Data Source: EHR

d. Rationale/evidence: Providing a detailed transition record at the time of ED discharge enhances the patient's preparation to self-manage post-discharge care and comply with the post-discharge treatment plan. Additionally, randomized trials have shown that many hospital readmissions can be prevented by patient education, pre-discharge assessment, and domiciliary aftercare. One recent study found that patients participating in a hospital program providing detailed, personalized instructions at discharge, including a review of medication routines and assistance with arranging follow-up appointments, had 30% fewer subsequent emergency visits and hospital readmissions than patients who received usual care at discharge.

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]

b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached

- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]

b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

CATEGORY 2 BEHAVIORAL HEALTH INFRASTRUCTURE PROJECTS

GOAL: Integrate behavioral health with physical health and other evidence-based services and supports.

The goals of the projects under this heading are to create service delivery models, which engage / integrate behavioral, physical and other community-based services and supports to provide services to individuals with a broad range of behavioral health conditions in the most appropriate community-based settings and to empower the individual to better manage their health / wellness.

According to a recent study released by the Robert Wood Johnson Foundation, only 33% of patients with BH conditions (24% of the adult population) receive adequate treatment.[187] Patients with BH issues experience higher risk of mortality and poor health outcomes, largely due to a lack of preventive health services and poorly controlled co-morbid medical disease. Risk increases with the severity of the behavioral health diagnoses. In Texas for example, persons with severe mental illness live over 29 years less, on average, than the general population.[188] Behavioral health conditions, also account for increased health care expenditures such as higher rates of potentially preventable inpatient admissions. Texas Medicaid data on potentially preventable inpatient readmissions demonstrates that behavioral health conditions are a significant driver of inpatient costs. Mental health and substance abuse conditions comprise 8 percent of initial inpatient readmissions to general acute and specialty inpatient hospitals but represent 24 percent of potentially preventable admissions.[189]

Complex medical and social issues including multiple chronic health conditions, low income, housing insecurity, social isolation, and lack of natural supports systems severely impact health and social functioning for persons with more severe behavioral health diagnoses such as schizophrenia, bipolar disorder and major depressive disorder. Substance use disorders, alone or in combination with mental health conditions, have significant physical consequences, leading to disability and increased acute and long term service expenditures.

Gaps in the service delivery system have far reaching costs and consequences. For example, the Texas state psychiatric hospital system is in crisis -- nearing or already over capacity, in large part due to gaps in the continuum of services and supports for individuals with more complex chronic mental health conditions. These individuals require a stable, supportive housing, integrated with community-based clinical and psychosocial services to prevent continual cycling through the street, to emergency room, jail and inpatient hospital.[190]

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187 Druss BG, Reisinger Walker E., "Mental Disorders and Medical Co-Morbidity." Robert Wood Johnson Foundation, The Synthesis Project: Issue 21 (2011).

188 Parks, J, Svendsen, D, et. al. "Morbidity and Mortality in People with Serious Mental Illness", National Association of State Mental Health Program Directors, 2006.

189 Potentially Preventable Readmissions in the Texas Medicaid Population, Fiscal Year 2010, Texas Health and Human Services Commission (2012)

190 Continuity of Care Task Force Final Report, DSHS, (2010)

Providing adequate health care to people with behavioral health conditions requires a comprehensive, person-centered approach within an integrated, "no wrong door" access, and delivery system. The system should include early and accurate assessment. It should facilitate access to acute and long term services as well as short term, community-based alternatives for stabilizing individuals in a behavioral health crisis; discharge planning to transition the individual back to the community from the inpatient setting; and post-discharge support services.

Evidence-based and evidence-informed strategies exist which can facilitate person-centered care for people with behavioral health conditions.

These approaches include:

- organizational realignment and process improvements to better integrate behavioral and physical health care and ensure that there is "no wrong door" to accessing needed treatment;
- self-management and wellness programs which empower individuals to better manage their chronic physical and behavioral health conditions; and
- specialized services and supports directed at high need / high cost populations which integrate clinical and other interventions to address the complex needs of persons with more severe illnesses and social challenges.

Integration: Organizational Realignment and Process Improvement

Health care systems which successfully integrate behavioral health and primary care services demonstrate improved care, cost savings, increased provider and consumer satisfaction.[191] This is especially important for medically indigent populations, which have co-occurring chronic health and mental health conditions. Treatments for individuals who present with mental health and/or substance abuse concerns are integrated with physical health via person-centered approaches.

The Four Quadrant Clinical Integration Model provides a promising, person-centered conceptual framework for organizational realignment.
Each quadrant considers the behavioral health and physical health risk and complexity of the population and suggests the major system elements that would be utilized to meet the needs of the individuals within that subset of the population. The Four Quadrant model is not intended to be prescriptive about what happens in each quadrant, but to serve as a conceptual framework for collaborative planning in each local system. Ideally it would be used as a part of collaborative planning for each new HRSA BH site, with the CHC and the local provider(s) of public BH services using the framework to decide who will do what and how coordination for each person served will be assured.

The use of the Four Quadrant Model to consider subsets of the population, the major system elements and clinical roles would result in the following broad approaches:

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191 Integrating Publicly Funded Physical and Behavioral Health Services: A Description of Selected Initiatives, Health Management Associates (2007).

- Quadrant I: Low BH-low physical health complexity/risk, served in primary care with BH staff on site; very low/low individuals served by the PCP, with the BH staff serving those with slightly elevated health or BH risk.
- Quadrant II: High BH-low physical health complexity/risk, served in a specialty BH system that coordinates with the PCP.
- Quadrant III: Low BH-high physical health complexity/risk, served in the primary care/medical specialty system with BH staff on site in primary or medical specialty care, coordinating with all medical care providers including disease managers.
- Quadrant IV: High BH-high physical health complexity/risk, served in both the specialty BH and primary care/medical specialty systems; in addition to the BH case manager, there may be a disease manager, in which case the two managers work at a high level of coordination with one another and other members of the team.

Other integration models include the IMPACT Model[192] and Wagner's Chronic Care Model.

Process improvements, such as adoption of evidence-based clinical practice guidelines for detection and treatment of depression and other conditions and for assessment of suicide risk can improve outcomes in both primary and specialty behavioral clinical settings. For example, one effective evidence-based strategy that has been shown to improve outcomes for depression, the most prevalent BH disorder, is the DIAMOND/IMPACT model of care. Key elements of such care models are screening for high prevalence mental health conditions, co-location of BH clinicians into primary care settings, collaborative meetings held by primary care and BH team members to discuss cases, training of primary care and BH staff on effective screening and collaborative care, the presence of tracking systems and registries to support effective monitoring of patients, the "Stepped Care" approach for appropriate level of treatment, care management for the highest risk patients with mental health and substance abuse disorders, and relapse prevention, among others.[193] Other examples of evidence-base practices include Screening, Brief Intervention and Referral to Treatment (SBIRT) for substance use disorders. SBIRT employs a brief assessment, performed by physical health providers in settings such as hospital emergency rooms and clinics to determine the presence of substance use issues, intervene and refer the individual to appropriate treatment. Independent evaluation of Texas SBIRT study determined that it resulted in significant inpatient / emergency department savings and increased appropriate use of services in the state's largest public hospital district.[194]

Self-Management and Wellness Programs

Successfully engaging the individual consumer in disease self-management and wellness activities related to chronic physical and behavioral health conditions empowers person-centered recovery and improved health outcomes. The Chronic Disease Self-Management Program developed at Stanford University to help people manage physical conditions such as diabetes and chronic pain, and Wellness

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192 Excerpted from the IMPACT website at the University of Washington at http://impact-uw.org/about/key.html.
193 Katon W., MD. "The Diamond Model." (based on Katon's Collaborative Care Model for depression) and Unutzer J.,MD. "IMPACT Study." (as well as numerous other controlled trials). Institute for Clinical Systems Improvement and Minnesota Family Health Services. Presentation to the Institute for HealthCare Improvement Annual Forum, Dec. 2010.
194 Insight Project Research Group (2009). SBIRT outcomes in Houston: Final report on InSight, a hospital district-based program for patients at risk for alcohol or drug use problems. Alcoholism: Clinical and Experimental Research, 33(8): 1-8.

Recovery Action Planning (WRAP) which is directed toward managing severe mental illness[195], are two prominent examples of evidenced-based, self-management models. Giving the individual consumer control over health resources is another complementary promising practice.

Health navigation and individual health planning are related practices. The Texas and Minnesota Demonstrations to Maintain Independence and Employment (DMIE) studies which focused on medically indigent adults with behavioral health disorders, used health care navigation to achieve positive results in health care utilization and wellness measures.[196] In Texas DMIE, health navigation and support from case managers trained in Motivational Interviewing resulted in increased access to and use of appropriate health services, including: more use of preventative care; more outpatient, more mental health and dental visits; greater adherence and persistence in taking prescribed medications for chronic conditions such as hypertension, respiratory conditions, diabetes, high cholesterol; more medical stability for chronic conditions and greater satisfaction with healthcare.[197]

Self-directed resource use models empower the individual to purchase goods and services to promote wellness and recovery. There is an evidence base for these models. For example, adults with severe mental illness and co-occurring physical disabilities in the Arkansas Cash and Counseling program were less likely to fall, have respiratory infections, develop bed sores, or spend a night in hospital or a nursing home if they had access to individual budgets than if they did not [198]. Similarly, an evaluation of the New Jersey Cash and Counseling program found that it was equally successful for participants with SMI as those with other types of disabilities[199].

In the Texas Self-Directed Care study (SDC), individuals with severe mental illness are empowered to manage a flexible fund to purchase goods and services with assistance from an advisor. Consumers have broad latitude for making substitutions of traditional services and supports within a typical maximum budget of $4,000 / year. Experience during the first year of the SDC indicates that individuals in the intervention group are making significant gains in recovery, wellness and employment relative to the control group.

Specialized Services and Supports for High Need Sub-Populations

The Texas Continuity of Care Task Force[200] analyzed needs and recommendations for improving services to severely mentally ill individuals who move repeatedly through multiple systems, such as criminal justice, general acute inpatient and mental health. Among the recommendations was the development of:

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195 Copeland, M.E. "Wellness recovery action plan: a system for monitoring, reducing and eliminating uncomfortable or dangerous physical symptoms and emotional feelings." Occupational Therapy in Mental Health. 17, 127–150 (2002).

196 Ozaki, R., Schneider, J., Hall, J., Moore, J., Linkins, K., Brya, J., Oelschlaeger, A., Bohman, T., Christensen, K., Wallisch, L., Stoner, D., Reed, B.,Ostermeyer, B. (2011). Personal navigation, life coaching, and case management: Approaches for enhancing health and employment support services. Journal of Vocational Rehabilitation, (34)2, 83-95.

197 Bohman, T., Wallisch, L., Christensen, K., Stoner, D., Pittman, A., Reed, B.,Ostermeyer, B. (2011). Working Well – The Texas Demonstration to Maintain Independence and Employment: 18-month outcomes. Journal of Vocational Rehabilitation, (34)2, 97-106.

198 Shen, C., Smyer, M.A., Mahoney, K.J., Loughlin, D.M. et al., (2008). Does Mental Illness Affect Consumer Direction of Community-Based Care? Lessons From the Arkansas Cash and Counseling Program. The Gerontologist, 48(1), 93-104.

199 Shen, C., Smyer, M., Mahoney, K.J., Simon-Rusinowitz, L. et al., (2008). Consumer-Directed Care for Beneficiaries With Mental Illness: Lessons From New Jersey's Cash and Counseling Program. Psychiatric Services, 59, 1299-1306.

200See Continuity of Care Task Force Report at: http://www.dshs.state.tx.us/mhsa/continuityofcare/)

- supported housing,
- assisted living,
- smaller, community-based living options, and
- services, such as cognitive rehabilitative modalities, to address the individual's limitations in organizing, planning and completing activities.

Services could be provided in a variety of settings, including individual homes, apartments, adult foster homes, assisted living facilities, and small group (three- to four-bed) community-supported residential settings. Examples of services could include cognitive and psychosocial rehabilitation; supported employment; transition assistance to establish a residence; peer support; specialized therapies; medical services, transportation medications and personal assistance.

2.13 Provide an intervention for a targeted behavioral health population to prevent unnecessary use of services in a specified setting (i.e., the criminal justice system, ER, urgent care etc.).

Project Goal:
Provide specialized services to complex behavioral health populations such as people with severe mental illnesses and/or a combination of behavioral health and physical health issues. These populations often have multiple concomitant issues such as substance use, traumatic injuries, homelessness, cognitive challenges, and lack of daily living skills and lack of natural supports. The State's mental health system provides rehabilitative services and pharmacotherapy to people with certain severe psychiatric diagnoses and functional limitations, but can serve only a fraction of the medically indigent population. It does not serve other high risk behavioral health populations and does not provide the range of services needed to deal with complex psychiatric and physical needs. These complex populations become frequent users of local public health systems.

The goal of this project is to avert outcomes such as potentially avoidable inpatient admission and readmissions in settings including general acute and specialty (psychiatric) hospitals; to avert disruptive and deleterious events such as criminal justice system involvement; to promote wellness and adherence to medication and other treatments; and to promote recovery in the community. This can be done by providing community based interventions for individuals to prevent them from cycling through multiple systems, such as the criminal justice system; the general acute and specialty psychiatric inpatient system; and the mental health system. Examples of interventions could include integrated medical and non-medical supports such as transition services to help individuals establish a stable living environment, peer support, specialized therapies, medical services, personal assistance, and short or long term residential options.

Residential options linked to a range of support services can effectively improve health outcomes for vulnerable individuals, such as the long-term homeless with severe mental illness. One such model in Colorado demonstrated a drastic 80 percent decrease in overnight hospital stays and a 76 percent decrease in nights in jail (Wortzel, 2007). Research indicates that among residents of permanent supportive housing:

- Rates of arrest and days incarcerated are reduced by 50%;
- Emergency room visits decrease by 57%;
- Emergency detoxification services decrease by 85%; and
- Nursing home utilization decreased by 50%.[201]

Project Options:

2.13.1 Design, implement, and evaluate research-supported and evidence-based interventions tailored towards individuals in the target population.
Required core components:

a) Assess size, characteristics and needs of target population(s) (e.g., people with severe mental illness and other factors leading to extended or

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201 Lewis, D., Corporation for Supportive Housing, Permanent Supportive Housing Program & Financial Model for Austin/Travis County, TX, 2010. Retrieved from http://www.caction.org/homeless/documents/AustinModelPresentation.pdf

repeated psychiatric inpatient stays. Factors could include chronic physical health conditions; chronic or intermittent homelessness, cognitive issues resulting from severe mental illness and/or forensic involvement.

b) Review literature / experience with populations similar to target population to determine community-based interventions that are effective in averting negative outcomes such as repeated or extended inpatient psychiatric hospitalization, decreased mental and physical functional status, nursing facility admission, forensic encounters and in promoting correspondingly positive health and social outcomes / quality of life.

c) Develop project evaluation plan using qualitative and quantitative metrics to determine outcomes.

d) Design models which include an appropriate range of community-based services and residential supports.

e) Assess the impact of interventions based on standardized quantitative measures and qualitative analysis relevant to the target population. Examples of data sources include: standardized assessments of functional, mental and health status (such as the ANSA and SF 36); medical, prescription drug and claims/encounter records; participant surveys; provider surveys. Identify "lessons learned," opportunities to scale all or part of the intervention(s) to a broader patient populations, and identify key challenges associated with expansion of the intervention(s), including special considerations for safety-net populations.

2.13.2 "Other" project option: Implement other evidence-based project to provide an intervention for a targeted behavioral health population to prevent unnecessary use of services in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project.

Note: All of the project options in project area 2.13 should include a component to conduct quality improvement for the project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, "lessons learned," opportunities to scale all or part of the project to a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations.

Note: Community-based interventions should be comprehensive and multispecialty. They should incorporate two or more components, such as those listed below depending on the needs of the target populations being served. These interventions should have significant flexibility to add more components if they are appropriate to meet the needs of the target population. Community-based components may include (but are not limited to):

- Residential Assistance (Foster/Companion Care, Supervised Living, Residential Support Services)
- Assisted living;
- Cognitive Adaptation Training (CAT) – an evidence-based service that uses tools and motivational techniques to establish and refine daily living skills;
- Psychosocial Rehabilitation;

- Supported employment;
- Minor home modifications;
- Home delivered meals;
- Transition assistance – assistance to establish a basic household, including security deposits, essential furnishings, moving expenses, bed and bath linens;
- Adaptive aids (e.g., medication-adherence equipment, communication equipment, etc.);
- Transportation to appointments and community-based activities;
- Specialized behavioral therapies:
  - Cognitive Behavioral Therapy – An empirically supported treatment that focuses on maladaptive patterns of thinking and the beliefs that underlie such thinking; and
  - Dialectical Behavior Therapy – A manualized treatment program (derived from cognitive behavioral therapy) that provides support in managing chronic crisis and stress to keep individuals in outpatient treatment settings;
- Prescription medications;
- Peer support – A service that models successful health and mental health behaviors. It is provided by certified peer specialists who are in recovery from mental illness and/or substance use disorders and are supervised by mental health professionals;
- Respite care (short term);
- Substance abuse services (specialized for individuals who have experienced prolonged or repeated institutionalization);
- Visiting Nursing and / or community health worker services;
- Employment supports
- Nutritional counseling
- Occupational therapy; Speech and language therapy; and Physical therapy.

Components must be articulated into a system which uses a CQI design such as the CMS Quality Framework for HCBS services. (Anita Yuskauskas, 2010) and/or be informed by guidance such as the SAMHSA evidence-based toolkit for permanent supported housing (http://store.samhsa.gov/product/Permanent-Supportive-Housing-Evidence-Based-Practices-EBP-KIT/SMA10-4510) or other evidence-based system

Process Milestones:

P-1. Milestone: Conduct needs assessment of complex behavioral health populations who are frequent users of community public health resources.

P-1.1. Metric: Numbers of individuals, demographics, location, diagnoses, housing status, natural supports, functional and cognitive issues, medical utilization, ED utilization

a. Data Source: Project documentation; Inpatient, discharge and ED records; State psychiatric facility records; survey of stakeholders (inpatient providers, mental health providers, social services and forensics); literature review

P-2. Milestone: Design community-based specialized interventions for target populations. Interventions may include (but are not limited to) Residential Assistance (Foster/Companion Care, Supervised Living, Residential Support Services)

- Assisted living;
- Cognitive Adaptation Training (CAT) – an evidence-based service that uses tools and motivational techniques to establish and refine daily living skills;
- Psychosocial Rehabilitation;
- Supported employment;
- Minor home modifications;
- Home delivered meals;
- Transition assistance – assistance to establish a basic household, including security deposits, essential furnishings, moving expenses, bed and bath linens;
- Adaptive aids (e.g., medication-adherence equipment, communication equipment, etc.);
- Transportation to appointments and community-based activities;
- Specialized behavioral therapies:
  - Cognitive Behavioral Therapy – An empirically supported treatment that focuses on maladaptive patterns of thinking and the beliefs that underlie such thinking; and
  - Dialectical Behavior Therapy – A manualized treatment program (derived from cognitive behavioral therapy) that provides support in managing chronic crisis and stress to keep individuals in outpatient treatment settings;
- Prescription medications;
- Peer support – A service that models successful health and mental health behaviors. It is provided by certified peer specialists who are in recovery from mental illness and/or substance use disorders and are supervised by mental health professionals;
- Respite care (short term);
- Substance abuse services (specialized for individuals who have experienced prolonged or repeated institutionalization);
- Visiting Nursing and / or community health worker services;
- Employment supports
- Nutritional counseling
- Occupational therapy; Speech and language therapy; and Physical therapy.

P-2.1. Metric: Project plans which are based on evidence / experience and which address the project goals

a. Project documentation

P-3. Milestone: Enroll and serve individuals with targeted complex needs (e.g., a diagnosis of severe mental illness with concomitant circumstances such as chronic physical health conditions, chronic or intermittent homelessness, cognitive issues resulting from severe mental illness, forensic involvement, resulting in extended or repeated stays at inpatient psychiatric facilities.)

P-3.1. Metric: Number of targeted individuals enrolled / served in the project.

a. Project documentation

P-4. Milestone: Evaluate and continuously improve interventions

P-4.1. Metric: Project planning and implementation documentation demonstrates plan, do, study act quality improvement cycles

a. Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement (e.g., how the project continuously uses data such as weekly run charts or monthly dashboards to drive improvement)

P-5. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-5.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-5.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.

a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-6. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.

P-6.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.

a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals
b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-7. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.

P-7.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.
a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-7.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.
a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]

P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]
a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
b. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones:

I-1. Milestone: Criminal Justice Admissions/Readmissions

I-1.1. Metric: X% decrease in preventable admissions and readmissions into Criminal Justice System;

a. Numerator: The percentage of individuals receiving specialized interventions that had a potentially preventable admission/readmission to a criminal justice setting (e.g. jail, prison, etc.) within the measurement period.

b. Denominator: The number of individuals receiving specialized interventions.
This would be measured at specified time intervals throughout the project to determine if there was a decrease.

c. Data Source: a. Claims/ encounter and clinical record data; anchor hospital and other hospitals, criminal justice system records, local MH authority and state MH (CARE) data system records

d. Rationale/Evidence: See Project Goal

I-2. Milestone: Nursing Facility Admissions/Readmissions

I-2.1. Metric: X% decrease in preventable admissions and readmissions to nursing facilities;

a. Numerator: The percentage of individuals receiving specialized interventions who had a potentially preventable admission/readmission within the measurement period.

b. Denominator: The number of individuals receiving specialized interventions.
This would be measured at specified time intervals throughout the project to determine if there was a decrease.

c. Data Source: Nursing facility admission data from Medicaid / DADS

d. Rationale/Evidence: See Project Goal

I-3. Milestone: Adherence to Antipsychotics for Individuals with Schizophrenia

I-3.1. Metric: The percentage of individuals with schizophrenia receiving the specialized interventions who are prescribed an antipsychotic medication that had a Proportion of Days Covered (PDC) for antipsychotic medications greater than or equal to 0.8 during the measurement period (12 consecutive months)

a. Numerator: The percentage of individuals with schizophrenia who filled at least two prescriptions for an antipsychotic and had a PDC for antipsychotic medication that is greater than or equal to 0.8.

b. Denominator: The number of individuals at the end of the measurement period with schizophrenia with at least two claims for an antipsychotic during the measurement period.
This would be measured at specified time intervals throughout the project to determine if there was a decrease.

c. Data Source: Claims and Encounter Data

d. Rationale/Evidence: NOTE: This metric is currently under review by NQF; not finalized.

I-4. Milestone: Anti-depressant medication management over six months for Major Depressive Disorder and anti-depressant medication during acute phase over 12 weeks (NQF# 0105)

I-4.1. Metric: The percentage of individuals with Major Depressive Disorder receiving the specialized interventions who were diagnosed with a new episode of major depression and treated with antidepressant medication, and who remained on an antidepressant medication treatment.

a. Numerator:

i. Effective Acute Phase Treatment: The number of individuals with Major Depressive Disorder receiving specialized interventions with at least 84 days (12 weeks) of continuous treatment with antidepressant medication during the 114-day period following the Inpatient Service Day (IPSD) (inclusive).

ii. Effective Continuation Phase Treatment: The number of individuals with Major Depressive Disorder receiving specialized interventions with at least 180 days (6 months) of continuous treatment with antidepressant medication (Table AMM-D) during the 231-day period following the IPSD (inclusive).

b. Denominator: The number of individuals with Major Depressive Disorder receiving specialized interventions who are diagnosed with a New Episode of major depression and treated with antidepressant medication.

c. Data Source: Claims and Encounter Data

d. Rationale/Evidence: See project goal.

NOTE: RHP may also select from physical health measures, including but not limited to: NQF# 0549--Pharmacotherapy Management of COPD Exacerbation (PCE); NQF# 0047--Asthma: Pharmacologic Therapy for Persistent Asthma; NQF#0575-- Comprehensive Diabetes Care: HbA1c control (< 8.0%); and NQF# 0074 Chronic Stable Coronary Artery Disease: Lipid Control.

I-5. Milestone: Functional Status

I-5.1. Metric: The percentage of individuals receiving specialized interventions who demonstrate improved functional status on standardized instruments (e.g. ANSA, CANS, etc.)

a. Numerator: The percent of individuals receiving specialized interventions who demonstrate improvement from baseline to annual functional assessment.

b. Denominator: The number of individuals receiving specialized interventions.

c. Data Source: Standardized functional assessment instruments (e.g. ANSA, CANS, etc.)

d. Rationale/Evidence: See project goal.

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]

b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

2.14 Implement person-centered wellness self-management strategies and self directed financing models that empower consumers to take charge of their own health care.

Project Goal:
Create wellness, self-management programs that employ research supported interventions singly or in combination to help individuals manage their chronic physical and behavioral health conditions. Examples of research-supported individual wellness self management strategies include Wellness Recovery Action Planning (WRAP), the Chronic Disease Self Management Program; Motivational Interviewing; client-managed wellness accounts; and health navigation / individual health planning models to empower the individual to achieve their health goals. These interventions should be closely coordinated with the patient's medical home.

Successfully engaging the individual consumer in disease self management and wellness activities related to chronic physical and behavioral health conditions empowers person-centered recovery and improved health outcomes. The Chronic Disease Self Management Program, developed at Stanford University to help people manage physical conditions such as diabetes and chronic pain, and Wellness Recovery Action Planning (WRAP) which is directed toward managing severe mental illness[202], are two prominent examples of evidenced-based, self-management models. Giving the individual consumer control over health resources is another complementary promising practice.

Health navigation and individual health planning are related practices. The Texas and Minnesota Demonstrations to Maintain Independence and Employment (DMIE), which focused on medically indigent adults with behavioral health disorders, used health care navigation to achieve positive results in health care utilization and wellness measures.[203] In Texas DMIE, health navigation and support from case managers trained in Motivational Interviewing resulted in increased access to and use of appropriate health services, including: more use of preventative care; more outpatient, more mental health and dental visits; greater adherence and persistence in taking prescribed medications for chronic conditions such as hypertension, respiratory conditions, diabetes, high cholesterol; more medical stability for chronic conditions and greater satisfaction with healthcare.[204]

Self directed resource use models empower the individual to purchase goods and services to promote wellness and recovery. There is an evidence base for these models. For example, adults with severe mental illness and co-occurring physical disabilities in the Arkansas Cash and Counseling program were less likely to fall, have respiratory infections, develop bed sores, or spend a night in hospital or a nursing home if they had access to individual budgets than if they did not[205]. Similarly, an evaluation of the New

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202 Copeland, M.E. "Wellness recovery action plan: a system for monitoring, reducing and eliminating uncomfortable or dangerous physical symptoms and emotional feelings." Occupational Therapy in Mental Health. 17, 127–150 (2002).
203 Ozaki, R., Schneider, J., Hall, J., Moore, J., Linkins, K., Brya, J., Oelschlaeger, A., Bohman, T., Christensen, K., Wallisch, L., Stoner, D., Reed, B.,Ostermeyer, B. (2011). Personal navigation, life coaching, and case management: Approaches for enhancing health and employment support services. Journal of Vocational Rehabilitation, (34)2, 83-95.
204 Bohman, T., Wallisch, L., Christensen, K., Stoner, D., Pittman, A., Reed, B.,Ostermeyer, B. (2011). Working Well – The Texas Demonstration to Maintain Independence and Employment: 18-month outcomes. Journal of Vocational Rehabilitation, (34)2, 97-106.
205 Shen, C., Smyer, M.A., Mahoney, K.J., Loughlin, D.M. et al., (2008). Does Mental Illness Affect Consumer Direction of Community-Based Care? Lessons From the Arkansas Cash and Counseling Program. The Gerontologist, 48(1), 93-104.

Jersey Cash and Counseling program found that it was equally successful for participants with SMI as those with other types of disabilities[206].

In the Texas Self-Directed Care study (SDC), individuals with severe mental illness are empowered to manage a flexible fund to purchase goods and services with assistance from an advisor. Consumers have broad latitude for making substitutions of traditional services and supports within a typical maximum budget of $4,000 / year. Experience during the first year of the SDC indicates that individuals in the intervention group are making significant gains in recovery, wellness and employment relative to the control group.

Project Options:

2.14.1 Establish interventions to promote person-centered wellness self-management strategies and train staff / contractors to empower consumers to take charge of their own health care.

Required core project components:

a) Develop screening process for project inclusion

b) Identify population for intervention using claims and encounter data, clinical records, or referrals from providers.

c) Recruit eligible individuals based on administrative and diagnostic data

d) Establish interventions and train staff / contractors

e) Hire staff (including the following minimum qualifications):

- Wellness and Health Navigation: Bachelors level professional with experience in mental health and/or wellness initiatives or a peer specialist who has successfully completed the DSHS certification program for peer specialists
- WRAP Facilitator: an individual trained and credentialed as a WRAP facilitator using the WARP model developed by Mary Ellen Copeland (See: http://www.mentalhealthrecovery.com/wrap/).

f) Train staff in motivational interviewing and person-centered planning

g) Assess project outcomes. Conduct quality improvement for project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, identifying "lessons learned," opportunities to scale all or part of the project to a broader patient population, and identifying key challenges associated with expansion of the project, including special considerations for safety-net populations.

2.14.2 Implement self-directing financing models including wellness accounts. Note: If selected, this must be implemented as part of a person-centered wellness project as described in 2.14.1.

Required core project components:

a) Establish wellness account funding mechanisms.

b) Establish policies and procedures for program operations.

c) Establish accountability systems to track outcomes and expenditures.

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206 Shen, C., Smyer, M., Mahoney, K.J., Simon-Rusinowitz, L. et al., (2008). Consumer-Directed Care for Beneficiaries With Mental Illness: Lessons From New Jersey's Cash and Counseling Program. Psychiatric Services, 59, 1299-1306.

d) Implement interventions.
e) Assess project outcomes.

2.14.3 "Other" project option: Implement other evidence-based project to implement person-centered wellness self-management strategies and self-directed financing models that empower consumers to take charge of their own health care in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project.

Note: All of the project options in project area 2.14 should include a component to conduct quality improvement for the project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, "lessons learned," opportunities to scale all or part of the project to a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations.

Process Milestones:

P-1. Milestone: Develop screening criteria and a process for selecting eligible participants
P-1.1. Metric: Screening criteria and process are documented
a. Data Source: Project documentation

P-2. Milestone: Identify population for intervention
P-2.1. Metric: Number of individuals meeting program entry criteria
a. Data Source: Project records

P-3. Milestone: Hire staff
P-3.1. Metric: Number of staff hired
a. Data Source: Project personnel records

P-4. Milestone: Train staff in required knowledge, skills and abilities
P-4.1. Metric: Number of staff trained
a. Data Source: Data Source: Project training records; Training curricula

P-5. Milestone: Establish wellness account funding mechanisms
P-5.1. Metric: Accounts are established with entity that will pay for wellness items
Flexible wellness funds may cover the following categories of purchases:

- Devices that promote wellness goals (e.g., digital scale, BP monitor, mobile device and / or app for physical activity, etc.)
- Transportation to wellness activities (e.g., support groups, gym, etc.)
- Subscriptions or memberships to promote wellness (e.g., YMCA, fitness magazine)
- Behavioral Interventions not currently covered by STAR+PLUS (e.g., relaxation, visualization, etc.)
- Individual wellness education
- Family-based Wellness Training and Interventions
- Nutritional or Medical Food

- Other items approved by the Project Manager
  a. Data Source: Project documents i.e., contracts, agreements

P-6. Milestone: Establish policies and procedures for program operations
P-6.1. Metric: Written documents are produced
a. Data Source: Project documentation

P-7. Milestone: Establish accountability systems to track outcomes and expenditures.
P-7.1. Metric: Forms and databases are created to support program operations and evaluation
a. Data Source: Project documentation

P-8. Milestone: Establish person-centered wellness self-management program to provide support to individuals with chronic physical and / or behavioral health conditions. Examples of strategies could include but are not limited to the use of wellness navigators to assist individuals with behavioral health conditions and co-morbid chronic physical diagnoses, establishing a flexible wellness account system to be used for individuals to purchase wellness related items, provide healthcare navigation to assist high risk behavioral health consumers in accessing health and behavioral health services, or providing WRAP or other evidence-based training to people assisting individuals with severe mental illness.
P-8.1. Metric: Number of targeted individuals participating in the wellness self-management programs
a. Data Source: Project documentation
P-8.2. Metric: Number of intervention sites
a. Data Source: Project documentation

P-9. Milestone: Develop assessment materials and procedures that allow identification, tracking, and monitoring on self-defined individual wellness goals.
P-9.1. Metric: Forms and databases are created to support program operations and evaluation
a. Data Source: Project documentation

P-10. Milestone: Evaluate and continuously improve wellness self-management programs
P-10.1. Metric: Project planning and implementation documentation demonstrates plan, do, study act quality improvement cycles
a. Data Source: Project reports include examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement (i.e. how the project continuously uses data such as weekly run charts or monthly dashboards to drive improvement)

P-11. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-11.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-11.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.

a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-12. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.

P-12.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.

a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals

b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-13. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.

P-13.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.

a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-13.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.
a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]
P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]
a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
b. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones

I-11. Milestone: Participants who are Self Managing

I-11.1. Metric: Percentage of participants successfully managing their health

a. Numerator: Number of participants achieving self-defined individual wellness goals

b. Denominator: Number of people participating in the person centered self-management project.

c. Data Source: Project data; individual wellness plans; claims and encounter data; medical records.

I-12. Milestone: Receipt of Recommended Preventative Services

I-12.1. Metric: The percentage of individuals who participate in the person centered self-management project and who also receive services as recommended by the US Preventative Services Task Force.

a. Numerator: The number of individuals who participate in the person centered self-management project receiving services as recommended by the US Preventative Services Task Force

b. Denominator: The number of individuals who participate in the person centered self-management project.

c. Data Source: Project data; individual wellness plans; claims and encounter data; medical records.

d. Rationale/Evidence: See project goal.

I-13. Milestone: Emergency Department Use

I-13.1. Metric: X% reduction in inappropriate use of Emergency Department Care by individuals in the person centered self-management project.

a. Numerator: total number of individuals participating in the person centered self-management project who utilize Emergency Department services receiving services.

b. Denominator: total number of individuals participating in the person centered self-management project
This would be measured at baseline and specified time intervals throughout the project to determine if there was an increase.

c. Data Source: Project data; claims and encounter data; medical records.

d. Rationale: see project description.

I-14. Milestone: Prescription Medication Adherence/Compliance

I-14.1. Metric: X% increase in adherence and compliance with prescribed medications for conditions such as depression, schizophrenia, bipolar disorder and chronic physical health conditions such as diabetes

a. Numerator: total number of individuals participating in the person centered self-management project that are adherent / compliant to their prescribed medication regime.

b. Denominator: total number of individuals participating in the person centered self-management project.
This would be measured at baseline and specified time intervals throughout the project to determine if there was an increase.

c. Data Source: Project data; claims and encounter data; medical records.

I-15. Milestone: Consumer satisfaction with Care and Health Status

I-15.1. Metric: X% of people report satisfaction with care and health status

a. Numerator: The number of individuals in the person centered self-management project reporting satisfaction with services.

b. Denominator: The number of individuals in the person centered self-management project.

c. Data Source: Survey data from CAHPS, MHSIP or other validated instrument.

d. Project Rationale: See Project Description

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]

b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

2.15 Integrate Primary and Behavioral Health Care Services

Project Goal
Integrate primary care and behavioral health care services in order to improve care and access to needed services.

The concept of a medical home that can address the needs of the whole person is increasingly recognized as a key in improving both access to care, continuity of care, improved outcomes. The importance of simultaneously addressing the physical health needs and the behavioral health needs of individuals has become recognized over the past three decades.

A recent study of adults discharged from psychiatric hospitals found 20% with chronic and serious conditions such as HIV infection, brain trauma, cerebral palsy and heart disease. As many as 75% of individuals with schizophrenia have been found to have high rates of serious physical illnesses, such as diabetes, respiratory, heart and/or bowel problems and high blood pressure. High rates were also seen for vision (93%), hearing (78%), and dental (60%) problems … the effects of atypical antipsychotic medications, which exacerbate this predisposition, individuals with schizophrenia have especially high rates of diabetes. Cardiovascular diseases are also very prevalent among people with mental illnesses. Again, psychiatric medications exacerbate the problem because they are associated with obesity and high triglyceride levels, known risk factors for cardiovascular disease. Adults with serious mental illnesses are known to have poor nutrition, high rates of smoking and a sedentary lifestyle—all factors that place them at greater risk for serious physical disorders, including diabetes, cardiovascular disease, stroke, arthritis and certain types of cancers. Despite such extensive medical needs, adults with serious mental illnesses often do not receive treatment… Among people with schizophrenia, fewer than 70% of those with co-occurring physical problems were currently receiving treatment for 10 of 12 physical health conditions studied.[207]

Medical Homes and similar collaborative care approaches have been determined to be beneficial in the treatment of mental illness in a variety of controlled studies.[208]

Behavioral health problems are often cyclical in nature meaning that over a course of months or years a person may experience periods of time when symptoms are well controlled (or in remission) while at other times symptoms can range from moderate to severe. The concept of a Medical home where physical and behavioral health care is integrated and provides supports for individuals who are in any quadrant of the National Council for Community Behavioral Health (NCCBH) Four Quadrant Clinical Integration Model at a given time.

The use of the Four Quadrant Model to consider subsets of the population, the major system elements and clinical roles would result in the following broad approaches:

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207 Bazelon Center for Mental Health Law (2004), GET IT TOGETHER How to Integrate Physical and Mental Health Care for People with Serious Mental Disorders
208 Thielke, S., Vannoy, S. & Unützer, J. (2007). Integrating mental health and primary care. Primary Care: Clinics in Office Practice, 34

- Quadrant I: Low BH-low physical health complexity/risk, served in primary care with BH staff on site; very low/low individuals served by the PCP, with the BH staff serving those with slightly elevated health or BH risk.
- Quadrant II: High BH-low physical health complexity/risk, served in a specialty BH system that coordinates with the PCP.
- Quadrant III: Low BH-high physical health complexity/risk, served in the primary care/medical specialty system with BH staff on site in primary or medical specialty care, coordinating with all medical care providers including disease managers.
- Quadrant IV: High BH-high physical health complexity/risk, served in both the specialty BH and primary care/medical specialty systems; in addition to the BH case manager, there may be a disease manager, in which case the two managers work at a high level of coordination with one another and other members of the team.

Other integration models include the IMPACT Model[209] and Wagner's Chronic Care Model.

Through the integration of behavioral health and physical health care services, opportunities to address both conditions during a single visit are vastly increased. Co-location, when coupled with protocols, training, technology and team building has the potential to improve communications between providers and enhance coordination of care. Additionally, access to care is enhanced because individuals do not have to incur the cost or inconvenience of arranging transportation or making multiple trips to different locations to address physical and behavioral health needs.

Finally, given the ever-increasing cost of transportation, a "one stop shopping" approach for health care improves the chances that individuals with multiple health needs will be able to access the needed care in a single visit and thereby overcome the negative synergy that exists between physical and behavioral health conditions.

Co-location alone is not synonymous with integration. Levels of interaction between physical and behavioral health providers may range from traditional minimally collaborative models to fully integrated collaborative models.

1. **Minimal Collaboration:** mental health providers and primary care providers work in separate facilities, have separate systems, and communicate sporadically.
2. **Basic Collaboration at a Distance:** separate systems at separate sites; periodic communication about shared patients, typically by telephone or letter.
3. **Basic Collaboration On-site:** separate systems, but shared facility; more communication, but each provider remains in his/her own professional culture.
4. **Close Collaboration in a Partly Integrated System:** providers share the same facility and have some systems in common (scheduling appointments, medical records); regular face-to-face communication; sense of being part of a team.
5. **Close Collaboration in a Fully Integrated System:** providers are part of the same team and system; the patient experiences mental health treatment as part of their regular primary care or vice versa.

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209 Excerpted from the IMPACT website at the University of Washington at http://impact-uw.org/about/key.html.

Delivery system reform projects proposed under this category should be structured to achieve level 4 or, preferably level 5 levels of interaction.

Project Options:

2.15.1 Design, implement, and evaluate projects that provide integrated primary and behavioral health care services.
Required core components:

a) Identify sites for integrated care projects, which would have the potential to benefit a significant number of patients in the community. Examples of selection criteria could include proximity/accessibility to target population, physical plant conducive to provider interaction; ability / willingness to integrate and share data electronically; receptivity to integrated team approach.

b) Develop provider agreements whereby co-scheduling and information sharing between physical health and behavioral health providers could be facilitated.

c) Establish protocols and processes for communication, data-sharing, and referral between behavioral and physical health providers

d) Recruit a number of specialty providers (physical health, mental health, substance abuse, etc. to provide services in the specified locations.

e) Train physical and behavioral health providers in protocols, effective communication and team approach. Build a shared culture of treatment to include specific protocols and methods of information sharing that include:

- Regular consultative meetings between physical health and behavioral health practitioners;
- Case conferences on an individualized as-needed basis to discuss individuals served by both types of practitioners; and/or
- Shared treatment plans co-developed by both physical health and behavioral health practitioners.

f) Acquire data reporting, communication and collection tools (equipment) to be used in the integrated setting, which may include an integrated Electronic health record system or participation in a health information exchange – depending on the size and scope of the local project.

g) Explore the need for and develop any necessary legal agreements that may be needed in a collaborative practice.

h) Arrange for utilities and building services for these settings

i) Develop and implement data collection and reporting mechanisms and standards to track the utilization of integrated services as well as the health care outcomes of individual treated in these integrated service settings.

j) Conduct quality improvement for project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, identifying "lessons learned," opportunities to scale all or part of the project to a broader patient population, and identifying key challenges associated with expansion of the project, including special considerations for safety-net populations.

2.15.2 "Other" project option: Implement other evidence-based project to integrate primary and behavioral health care services in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the

"Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project.

Note: All of the project options in project area 2.15 should include a component to conduct quality improvement for the project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, "lessons learned," opportunities to scale all or part of the project to a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations.

Process Milestones

P-1. Milestone: Conduct needs assessment to determine areas of the state where the co-location of services has the potential to benefit a significant number of people who have physical/behavioral health needs.

- P-1.1. Metric: Numbers of patients in various areas who might benefit from integrated services. Demographics, location, & diagnoses
  - a. Data Sources: Inpatient, discharge and ED records; survey of primary care providers; survey of behavioral health providers; state demographic information relating to treated health conditions; Medicaid claims data

P-2. Milestone: Identify existing clinics or other community-based settings where integration could be supported. It is expected that physical health practitioners will share space in existing behavioral health settings, but it may also be possible to include both in new settings or for physicians to share their office space with behavioral health practitioners.

- P-2.1. Metric: Discussions/Interviews with community healthcare providers (physical and behavioral), city and county governments, charities, faith-based organizations and other community based helping organizations.
  - a. Data Source: Information from persons interviewed

P-3. Milestone: Develop and implement a set of standards to be used for integrated services to ensure effective information sharing, proper handling of referrals of behavioral health clients to physical health providers and vice versa.

- P-3.1. Number and types of referrals that are made between providers at the location
  - a. Data Sources: Surveys of providers to determine the degree and quality of information sharing; Review of referral data and survey results
- P-3.2. Number of referrals that are made outside of the location
  - a. Data Sources: Surveys of providers to determine the degree and quality of information sharing; Review of referral data and survey results
- P-3.3. Number of referrals which follow the established standards
  - a. Data Sources: Surveys of providers to determine the degree and quality of information sharing; Review of referral data and survey results

P-4. Milestone: Assess ease of access to potential locations for project implementation

P-4.1. Metric: Access to major roadways, bus routes, or proximity to a large number of individuals who may benefit from services.
a. Data Source: City/County data, maps, demographic data relating to prevalence of health conditions.

P-5. Milestone: Develop integrated sites reflected in the number of locations and providers participating in the integration project:
P-5.1. Metric: Number of agreements signed for the provision of integrated services
a. Data Source: Project data
P-5.2. Metric: Number of primary care providers newly located in behavioral health settings.
a. Data Source: Project data

P-5.3. Metric: Number of behavioral health providers newly located in primary care clinics.
a. Data Source: Project data

P-6. Milestone: Develop integrated behavioral health and primary care services within co-located sites.
P-6.1. Metric: Number of providers achieving Level 4 of interaction (close collaboration in a partially integrated system).
a. Data Source: Project data
P-6.2. Metric: Number of providers achieving Level 5 of interaction (close collaboration in a fully integrated system)
a. Data Source: Project data

P-7. Milestone: Evaluate and continuously improve integration of primary and behavioral health services.
P-7.1. Metric: Project planning and implementation documentation demonstrates plan, do, study act quality improvement cycles
a. Data Source: Project reports include examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement (e.g. how the project continuously uses data such as weekly run charts or monthly dashboards to drive improvement)

P-8. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.
P-8.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-8.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.
a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-9. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.
P-9.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.
a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals
b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-10. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.
P-10.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.

a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-10.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.
a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]
P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]
a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
b. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones

I-8. Milestone: Integrated Services

I-8.1. Metric: X% of Individuals receiving both physical and behavioral health care at the established locations.

a. Numerator: Number of individuals receiving both physical and behavioral health care in project sites

b. Denominator: Number of individuals receiving services in project sites.

c. Data Source: Project data; claims and encounter data; medical records

I-9. Milestone: Coordination of Care

I-9.1. Metric: X% of Individuals with a treatment plan developed and implemented with primary care and behavioral health expertise

a. Numerator: Number of individuals with treatment plans developed and implemented with primary care and behavioral health expertise

b. Denominator: Number of individuals receiving services at project sites.

c. Data Source: Project data; claims and encounter data; medical records

I-10. Milestone: No-Show Appointments

I-10.1. Metric: X% decrease the "no shows" for behavioral and physical health appointments.

a. Numerator: Number of appointments for behavioral or physical health services that were not kept in the project sites.

b. Denominator: Number of scheduled appointments for behavioral and physical health services in the project site.
This would be measured at baseline and at specified time intervals throughout the project.

c. Data Source: Project Data; Clinic Registry Data; Claims and Encounter Data

I-11. Milestone: Health Metrics

I-11.1. Metric: X% Increase in Positive Results of Standardized Health Metrics, which may include :

- Objective health indicators such as Body Mass Index, glycated hemoglobin (A1c), blood pressure, and other specific blood assays, etc.
- Behavioral health instruments such as the Child Behavior Checklist (CBCL) the Quality of Life (QOL) Questionnaire, the Child Needs and Strengths Assessment (CANS), the Adult Needs and Strengths Assessment (ANSA).

a. Numerator: The number of people receiving services at project sites with positive results on standardized health metrics.

b. Denominator: The number of people receiving services at project sites.

c. Data Source: Project Data; Medical Records; Claims and Encounter Data.
This would be measured at baseline and at specified time intervals throughout the project.

I-12. Milestone: Improved Consumer satisfaction with Integrated Services
- I-12.1. Metric: X% of People report satisfaction with integrated services
  - a. Numerator: The number of individuals receiving integrated services that have expressed satisfaction with services.
  - b. Denominator: The number of individuals receiving integrated services
  - c. Survey data from CAHPS, MHSIP or other validated instrument.
  - d. Data from completed consumer satisfaction surveys.

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]
- I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]
  - a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]
  - b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

2.16 Provide virtual psychiatric and clinical guidance to all participating primary care providers delivering services to behavioral patients regionally.

Project Goal

Provide ready access to psychiatric consultation in primary care to enhance and improve treatment for individuals with behavioral health conditions. Virtual psychiatric consultation may include (but is not limited to) the following modalities of communication: telephone, instant message, video conference, facsimile, and e-mail. Primary Care Providers (PCPs) tend to be the first (and often last) stop for services for individuals with mental illness and substance use disorders. Indeed, more than 1/3 of all patients rely solely on PCPs to treat psychiatric disorders. These individuals may have medical conditions that are created or exacerbated by untreated or under-treated mental illness and substance abuse. This trend means PCPs should have adequate resources and expertise to treat behavioral health conditions. Treating behavioral health conditions during a PCP visit reduces the chances of losing the patient during the referral process.

The goal of this project is to provide PCPs delivering services regionally with the necessary resources and guidance to adequately treat patients who present with behavioral health conditions. Clinical guidance will be provided remotely via the following communication methods: telephone, instant message, video conference, facsimile, and e-mail. Access to these services will allow the medical treatment team to utilize behavioral health expertise in areas including, but not limited to: diagnostic impressions, psychiatric medication administration, trajectory and outcomes of mental health diagnoses, cultural considerations relevant to behavioral health treatment, and referral recommendations for ongoing treatment, and behavioral health self-management resources. PCPs will increase their knowledge base about behavioral health conditions while also having quick access to cutting edge and research based behavioral health interventions over several communication methods. This effort will bridge the often disparate disciplines of behavioral and physical health, providing better outcomes for patients who increasingly rely on primary care settings for treatment of their behavioral health conditions.

Project Options:

2.16.1 Design, implement, and evaluate a program to provide remote psychiatric consultative services to all participating primary care providers delivering services to patients with mental illness or substance abuse disorders

Required core project components:

a) Establish the infrastructure and clinical expertise to provide remote psychiatric consultative services.

b) Determine the location of primary care settings with a high number of individuals with behavioral health disorders (mental health and substance abuse) presenting for services, and where ready access to behavioral health expertise is lacking. Identify what expertise primary care providers lack and what they identify as their greatest needs for psychiatric and/or substance abuse treatment consultation via survey or other means.

c) Assess applicable models for deployment of virtual psychiatric consultative and clinical guidance models

d) Build the infrastructure needed to connect providers to virtual behavioral health consultation. This may include:

- Procuring behavioral health professional expertise (e.g., Psychiatrists, Psychologists, Psychiatric Nurses, Licensed Professional Counselors, Masters level Social Workers, Licensed Chemical Dependency

Counselors, Licensed Marriage and Family Therapists, Certified Peer specialists, and Psychiatric Pharmacists,). This will include expertise in children and adolescents (e.g. Child and Adolescent Psychiatrists, Psychologists, Nurses, and Pharmacists); expertise in psychotropic medication management in severe mental illness.

e) Ensuring staff administering virtual psychiatric consultative services are available to field communication from medical staff on a 24-hour basis.

f) Identify which medical disciplines within primary care settings (nursing, nursing assistants, pharmacists, primary care physicians, etc.) could benefit from remote psychiatric consultation.

g) Provide outreach to medical disciplines in primary care settings that are in need of telephonic behavioral health expertise and communicate a clear protocol on how to access these services.

h) Identify clinical code modifiers and/or modify electronic health record data systems to allow for documenting the use of telephonic behavioral health consultation.

i) Develop and implement data collection and reporting standards for remotely delivered behavioral health consultative services.

j) Review the intervention(s) impact on access to telephonic psychiatric consults and identify "lessons learned," opportunities to scale all or part of the intervention(s) to a broader patient population, and identify key challenges associated with expansion of the intervention(s), including special considerations for safety-net populations

Optional Project Components:

k) Develop a database or information resource center for behavioral health professionals to ensure appropriate research based interventions are being communicated to providers.

l) Develop or adapt best practice resources and research based literature to medical professions on a range of behavioral health topics that frequently occur in primary care settings (including guidelines for best practices for administration of psychotropic medications for specific mental health conditions and monitoring of these medications).

2.16.2 "Other" project option: Implement other evidence-based project to provide virtual psychiatric and clinical guidance to all participating primary care providers delivering services to behavioral health patients regionally in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project.

Note: All of the project options in project area 2.16 should include a component to conduct quality improvement for the project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, "lessons learned," opportunities to scale all or part of the project to a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations.

Process Milestones:

P-1. Milestone: Conduct needs assessment of complex behavioral health populations and primary care providers who could benefit from telephonic psychiatric consultation.

P-1.1. Metric: Conduct needs assessment including items such as the following:

- Numbers of patients who could benefit from project
- Numbers of PCP locations that could benefit from project
- Description of expertise that PCPs have identified they lack and that
- would be most helpful if offered by a telephonic consultative service
- Demographics, location, & diagnoses

a. Data Source: Inpatient, discharge and ED records; survey of primary care providers; literature review

P-2. Milestone: Design psychiatric consultation services that would allow medical professionals in primary care settings to access professional behavioral health expertise (via methods such as telephone, instant messaging, video conference, facsimile, and e-mail).

P-2.1. Metric: Establish project plans which are based on evidence / experience and which address the project goals

a. Data Source: Project documentation

P-2.2. Metric: Documentation of use of the psychiatric consultative services by primary care providers

a. Data Source: Follow-up surveys of primary care providers to indicate that they are using the service and that it is meeting their needs

P-3. Milestone: Enroll primary care settings into the remote behavioral health consultation services.

P-3.1. Metric: Number of PCP settings that use psychiatric consultative services

a. Data Source: Project documentation

P-4. Milestone: Determine the impact of the project.

P-4.1. Metric: Evaluation plan including metrics, operational and evaluation protocols

a. Data Source: Project documentation

P-5. Milestone: Evaluate and continuously improve psychiatric consultative services

P-5.1. Metric: Project planning and implementation documentation demonstrates plan, do, study act quality improvement cycles

a. Data Source: Project reports include examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement (i.e. how the project continuously uses data such as weekly run charts, monthly dashboards, and feedback from primary care providers to drive improvement)

P-6. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-6.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-6.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.

a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-7. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.

P-7.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.

a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals

b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-8. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.

P-8.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.

a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-8.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.
a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]
P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]
a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
b. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones:

I-6. Milestone: ED Use

I-6.1. Metric: X% reduction of Emergency Department usage for individuals with mental illness and/or substance use disorders who are treated in primary care settings which had access to virtual psychiatric consultative services.

a. Numerator: total number of individuals receiving care in primary care settings which had access to virtual psychiatric consultative services who used Emergency Departments
Denominator: total number of individuals receiving care in primary care settings which had access to virtual psychiatric consultative services. *This would be measured at specified time intervals throughout the project.*

b. Data Source: Project data; Claims data and encounter data from ED

c. Rationale: see project description.

I-7. Milestone: Evidence Based Protocols and Guidelines

I-7.1. Metric: X% Increase use of evidence-based treatment protocols and adherence to evidence-based guidelines for specific behavioral health conditions (these conditions could include schizophrenia, autism, bipolar depression, etc) by primary care physicians

a. Numerator: The number of primary care providers with access to psychiatric consultative services who used evidence based protocols and guidelines to treat behavioral health conditions.

b. Denominator: The number of primary care providers with access to psychiatric consultative services to treat behavioral health conditions. *This would be measured at specified time intervals throughout the project.*

c. Data Source: Project Data; Provider Survey Data; Medical Records

I-8. Milestone: Improved Consumer Satisfaction with Treatment

I-8.1. Metric: Percentage of people reporting satisfaction with treatment

a. Numerator: The number of individuals receiving care in primary care settings which had access to virtual psychiatric consultative services and who have expressed satisfaction with services.

b. Denominator: The number of individuals receiving care in primary care settings which had access to virtual psychiatric consultative services

c. Data Source: Survey data from CAHPS, MHSIP or other validated instrument.

I-9. Milestone: Primary Care Provider Satisfaction with virtual Psychiatric Consultative Services

I-9.1. Metric: Percentage of Primary Care Providers reporting improved satisfaction with virtual psychiatric consultative services.

a. Numerator: The number of primary care providers with access to virtual psychiatric consultative services who express satisfaction with these services.

b. Denominator: The number of primary care providers with access to virtual psychiatric consultative services

c. Data Source: Primary Care Provider Survey data

I-10. Milestone: Adherence to antipsychotics for individuals with schizophrenia who are seen in primary care settings.

I-10.1. Metric: Percentage of individuals with schizophrenia who are prescribed an antipsychotic medication that had a Proportion of Days Covered (PDC) for antipsychotic medications greater or equal to 0.8 during the measurement period (12 consecutive months).

a. Numerator: Individuals with schizophrenia who filled at least two prescriptions for any oral antipsychotic medication and have a Proportion of Days Covered (PDC) for antipsychotic medications of at least 0.8.

b. Denominator: Individuals at least 18 years of age as of the end of the measurement period with schizophrenia with at least two claims for an antipsychotic during the measurement period (12 consecutive months) who were seen in a primary care setting.

c. Data Source: Claims data; Project Data (RHP's may also consider automated devices which measure prescription utilization)

I-11. Milestone: Anti-depressant medication management over six months or Major Depressive Disorder anti-depressant medication during acute phase over 12 weeks (NQF# 0105)

I-11.1. Metric: The percentage of individuals with behavioral health disorders who are seen in primary care settings who were diagnosed with a new episode of major depression and treated with antidepressant medication, and who remained on an antidepressant medication treatment.

a. Numerator:

- Effective Acute Phase Treatment: The number of individuals with behavioral health disorders who are seen in primary care settings with at least 84 days (12 weeks) of continuous treatment with antidepressant medication during the 114-day period following the Inpatient Service Day (IPSD) (inclusive).
- Effective Continuation Phase Treatment: The number of individuals with behavioral health disorders who are seen in primary care settings with at least 180 days (6 months) of continuous treatment with antidepressant medication (Table AMM-D) during the 231-day period following the IPSD (inclusive).

b. Denominator: The number of individuals who are seen in primary care settings with behavioral health disorders who are diagnosed with a New Episode of major depression and treated with antidepressant medication.
c. Data Source: Claims and Encounter Data
d. Rationale/Evidence: See project goal.

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]
I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]
a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]
b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

2.17 Establish improvements in care transition from the inpatient setting for individuals with mental health and / or substance abuse disorders.

Project Goals:
The goal of this project is to implement improvements in care transitions and coordination of care from inpatient to outpatient, post-acute care, and home care settings in order to prevent increased health care costs and hospital readmissions of individuals with mental health and substance use (behavioral health) disorders. For people with mental health and substance use disorders, these transitions are especially critical in reducing the risk of readmission. Texas Medicaid data on potentially preventable inpatient readmissions demonstrates that behavioral health conditions are a significant driver of inpatient costs. Mental health and substance abuse conditions comprise 8 percent of initial inpatient readmissions to general acute and specialty inpatient hospitals but represent 24 percent of potentially preventable admissions.[210] The implementation of effective care transitions requires that providers learn and develop effective ways to successfully manage one disease in order to effectively manage the complexity of multiple diseases.[211] Preventable admissions in Texas are commonly indicative of "the absence of excellent care, especially during the transition from inpatient care to care at home or in a post-acute facility."[212]

Relatively simple steps can make a real difference. These include scheduling the follow-up appointment before discharge, voice-to-voice transfer of care between the attending physician and the primary care physician / provider community-based services, reconciling medication instructions, and follow-up phone calls or visits after discharge. More complex populations with severe behavioral health disorders and other issues, such as homelessness may require more intensive follow-through post discharge. Strategies, such as Critical Time Intervention (CTI), are designed to prevent recurrent adverse outcomes, such as readmissions among persons with severe mental illness. Such interventions may include pre-transition planning, intensive transition support, assessment and adjustment of support and transfer to community sources of care. Peer support can be an important strategy for individuals transitioning from inpatient to community settings. In Texas, the Department of State Health Services, has developed a peer certification program which could be leveraged by partnerships to develop peer support capacity.

Project Options:

2.17.1 Design, implement, and evaluate interventions to improve care transitions from the inpatient setting for individuals with mental health and/or substance abuse disorders.

Required core project components:

a) Develop a cross-continuum team comprised of clinical and administrative representatives from acute care, ambulatory care, behavioral health and community-based non-medical supports

b) Conduct an analysis of the key drivers of 30-day hospital readmissions for behavioral health conditions using a chart review tool (e.g. the Institute for

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210 Potentially Preventable Readmissions in the Texas Medicaid Population, Fiscal Year 2010, Texas Health and Human Services Commission (2012)
211 Rittenhouse D, Shortell S, et al. "Improving Chronic Illness Care: Findings from a National Study of Care Management Processes in Large Physician Practices." Medical Care Research and Review Journal (2010) 67(3): 301-320
212 Ibid.

Healthcare Improvement's (IHI) State Action on Avoidable Re-hospitalizations (STAAR) tool) and patient and provider interviews.

c) Identify baseline mental health and substance abuse conditions at high risk for readmissions, (example include schizophrenia, bipolar disorder, major depressive disorder, chemical dependency).

d) Review best practices for improving care transitions from a range of evidence-based or evidence-informed models

e) Identify and prioritize evidence-based strategies and clinical protocols that support seamless care transitions and reduce preventable 30-day readmissions.

f) Implement two or more pilot intervention(s) in care transitions targeting one or more patient care units or a defined patient population. Examples of interventions include, but are not limited to, implementation of:

g) Conduct quality improvement for project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, identifying "lessons learned," opportunities to scale all or part of the project to a broader patient population, and identifying key challenges associated with expansion of the project, including special considerations for safety-net populations.

2.17.2 "Other" project option: Implement other evidence-based project to establish improvement in care transition from the inpatient setting for individuals with mental health and / or substance abuse disorders in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project.

Note: All of the project options in project area 2.17 should include a component to conduct quality improvement for the project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, "lessons learned," opportunities to scale all or part of the project to a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations.

Examples of interventions include, but are not limited to, implementation of:

- Discharge checklists
- "Hand off" communication plans with receiving medical and behavioral health providers
- Wellness initiatives targeting high-risk behavioral health patients, such as WRAP, health planning and motivation strategies, Screening, Brief Intervention and Referral to Treatment (SBIRT) for substance use disorders,
- Individual and family education initiatives including self-management skills.
- Post-discharge medication planning
- Early follow-up such as homecare visits, primary care outreach, and/or patient call-backs.

- Transition and wellness support from certified peer specialists for mental health and /or substance use disorders.
- More intensive follow-through programs, such as CTI or other evidence-informed practices, for individuals with more severe behavioral health disorders and other challenges, such as homelessness.
- Electronic data exchange for critical clinical information to support excellent continuity of care.

Process Milestones

P-1. Milestone: Establish Task Force or Team to support or lead project.
- P-1.1. Establishment of Task Force or Team
  - a. Documentation of task force or team

P-2. Milestone: Collect information and /or analyze data on factors contributing to preventable readmissions within 30 days. Metrics may include:
- P-2.1. Conduct a minimum of 10 interviews with patient/family members regarding an occurrence of a preventable 30 day hospital readmission
- P-2.2. Review interview data conducted by multidisciplinary team
- P-2.3. Improve electronic reporting of readmission data
- P-2.4. Develop an electronic report on readmission data
- P-2.5. Chart review Reports
- P-2.6. Determine baseline metric for all cause 30 day readmission
- P-2.7. Identification of key factors that increase the likelihood of preventable 30 day readmissions for individuals with mental health and substance use disorders
  - a. Data Sources:
    - Documented summary of interview results
    - Report template on readmission
    - Minutes of meetings analyzing interview results
    - Report on readmission data
    - Report listing key contributing factors

P-3. Milestone: Identify baseline high-risk patients analyzing Diagnoses, Diagnostic-related Groups (DRGs) and /or other data elements regarding 30-day readmissions for acute care and home care patients. (Examples of other data elements include but are not limited to age, social support, co-occurring behavioral health conditions, and housing status)
- P-3.1. Documentation of chart review
  - a. Documentation of Chart Review Report

P-4. Milestone: Hire clinician(s) with care transition/disease management expertise.
- P-4.1. Position offer letters
  - a. Documentation of position of offer letters/ Human Resources records

P-5. Milestone: Develop an assessment tool to identify patients who are at high risk for readmission.
- P-5.1. Multidisciplinary committee approves assessment tool

a. Approved sample tool and meeting minutes

P-6. Milestone: Identify evidence-based frameworks that support seamless care transitions and impact preventable 30-day readmissions.
P-6.1. Selection of an evidence based framework
a. Meeting minutes displaying the selection of evidence based framework

P-7. Milestone: Develop operations manual for care transitions intervention with administrative protocols and clinical guidelines.
P-7.1. Development of operations manual
a. Written operations manual

P-8. Milestone: Pilot test care management/ intervention approaches at selected provider sites (inpatient or outpatient).Metrics may include:
P-8.1. Implementation of evidence-based interventions on a pilot inpatient unit, including number of patients served by the pilot;
P-8.2. Implementation of pilot program involving inpatient and community behavioral health providers, including number of patients served by the pilot
a. Data Sources: Detailed implementation plan; program records

P-9. Milestone: Analyze pilot test results
P-9.1. Analyze pilot report
a. Copy of report
b. Data Source: Evidence of how pilot test results were used in rapid-cycle improvement to inform the scaled-up plans for a hospital care transition process or community-based program for high-risk patients

P-10. Milestone: Develop plan(s) for a (1) hospital care transition process or (2) community-based aftercare / follow-up program for high-risk patients, or (3) to provide care management tools and health information exchanges with post-acute providers.
P-10.1. Care management tool and Plan
P-10.2. Transition Process Improvement Plan
P-10.3. Community-based aftercare plan
a. Internal hospital records/documentation

P-11. Milestone: Evaluate and continuously improve care transitions programs
P-11.1. Project planning and implementation documentation demonstrates plan, do, study act quality improvement cycles
a. Project reports include examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement (i.e. how the project continuously uses data such as weekly run charts, monthly dashboards with data on readmissions, and feedback from patients to drive improvement)

P-12. Milestone: Conduct study to determine feasibility of providing a wellness, self management and /or peer support program on hospital campus for patients with high risk diagnoses.
P-12.1. Hospital program plan

a. Internal hospital records/documentation

P-13. Milestone: Conduct baseline study and annual reassessments of high-risk patients readmitted to hospital < 30 days to determine interval between hospital discharge and visit to PCP/ behavioral health provider.
P-13.1. Study of at least X high risk patients readmitted in less than 30 days to hospital in a given year
a. Internal hospital records/documentation

P-14. Milestone: Collect baseline patient-centered measures for high-risk patients.
P-14.1. Baseline report on X number of high-risk patients
a. Internal hospital records/documentation

P-15. Milestone: Educate appropriate clinical staff on key contributing factors to preventable readmissions.
P-15.1. X % of key clinical staff completing educational sessions
a. Data Sources: Internal hospital records/documentation; Training curricula

P-16. Milestone: Dedicate additional Advanced Practice RN resources to provide a bridge visit to high risk patients between hospital discharge and PCP visit.
P-16.1. Advanced Practice RN position descriptions and work schedule
P-16.2. Number of patients seen by Advanced Practice RNs
a. Documentation of Advanced Practice RN position descriptions and work schedule

P-17. Milestone: Re-engineer hospital discharge process for all admitted patients.
P-17.1. Development of high-risk tool and discharge checklist
a. Documentation of high risk tool and discharge check list including medication reconciliation

P-18. Milestone: Develop reports and studies on lessons learned and share with health care community.
P-18.1. Development of “Lessons Learned” report
a. Internal hospital records/documentation

P-19. Milestone: Implement enhanced assessment tool for inpatients with substance abuse and behavioral health issues.
P-19.1. Multidisciplinary committee approves assessment tool
a. Documentation of committee approval of tool

P-20. Milestone: Identify community-based care transition partners.
P-20.1. Number of care transition partners
P-20.2. Number of partner post-acute facilities
a. Internal hospital records/documentation

P-21. Milestone: Assess current knowledge / barriers to implementing evidence-based care transition tool or framework.

P-21.1. Completion of survey or report
a. Internal hospital records/documentation

P-22. Milestone: Train hospital staff on standard use of evidence-based care transition tool or framework.
P-22.1. X% of hospital staff trained
a. Internal hospital records/documentation
b. Training curricula

P-23. Milestone: Train post-acute partners on standard use of evidence-based care transition tool or framework.
P-23.1. X% of post-acute partners trained
a. Internal hospital records/documentation

P-24. Milestone: Document workflow protocol including use of evidence-based care transition tool or framework.
P-24.1. Completion of written workflow protocol
a. Internal hospital records/documentation

P-25. Milestone: Implement workflow protocol including use of evidence-based care transition tool or framework.
P-25.1. Dissemination of written workflow protocol to appropriate staff
a. Internal hospital records/documentation

P-26. Milestone: Establish baseline measure for the percentage of "High Risk" patients with customized care plans before discharge.
P-26.1. Percentage of "High Risk" patients with customized care plans before discharge
a. Report on "High Risk" patients with customized care plan before discharge

P-27. Milestone: Creation of Patient Experience of Care Council, (including patient / caregiver representation) to provide advice to Regional Healthcare Partnership on factors influencing care transition and strategies for improving care transition.
P-27.1. Council creation meeting minutes
a. Internal hospital records/documentation

P-28. Milestone: Gap analysis regarding patient communication with doctors, nurses, and/or discharge information.
P-28.1. Analysis complete
a. Internal hospital records/documentation

P-29. Milestone: Develop peer specialist positions that focus on providing emotional support and practical guidance regarding the discharge and recovery process. Techniques could include: teaching patients techniques, such as keeping wellness journals or recovery inventories; meeting with patients individually and in recovery support groups, conducting panel presentations to provide the patient perspective to physicians, nurses, medical and nursing students and other hospital staff; conducting evidence-based self

help training sessions with patients. (Examples of EBPs include Wellness Recovery Action Planning (WRAP), Chronic Disease Self Management)

P-29.1. X position postings and hiring roster

a. Internal personnel records

P-30. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-30.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-30.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.

a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-31. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.

P-31.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.

a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals

b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-32. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.

P-32.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.

a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-32.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.

a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]

P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]

b. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).

- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones

I-30. Milestone: Enrollment in Community Based Support Program

I-30.1. Metric: X% increase the number of high-risk patients enrolled in community-based support programs.

a. Numerator: number of high-risk patients in the RHP Project Sites who were enrolled in community support programs

b. Denominator: number of high-risk patients in the RHP Project Sites

c. Data Source: Documented, implemented support plans approved by transition / service team

I-31. Milestone: Warm Handoffs

I-31.1. Metric: X% increase the use of warm handoffs (a clinician to clinician real time live communication) for adult inpatients being discharged to the community

a. Numerator: Number of individuals in target population transitioned from adult inpatient units into community behavioral health programs via a warm handoff.

b. Denominator: Number of individuals in target population transitioned from adult inpatient units into community behavioral health programs

c. Data Source: Report on percentage of adult transfers to alternative care settings during which warm handoff occurred

I-32. Milestone: Teachback Methodology Education

I-32.1. Metric: X% increase in selected hospital clinicians (e.g. RNs, hospitalists) educated on use of teach-back methodologies.

a. Numerator: The number of selected hospital clinicians (e.g. RNs, hospitalists) who have been educated on use of teach-back methodologies

b. Denominator: The number of selected hospital clinicians (e.g. RNs, hospitalists)in the RHP Project Site

c. Data Source: Provider Survey; Project Data; Clinician Logs

I-33. Milestone: Patient Teachback

I-33.1. Metric: X% increase in patients educated using the teach-back methodology in RHP project sites

a. Numerator: The number of patients in RHP Project sites educated using the teachback methodology

b. Denominator: The number of patients in RHP Project sites

c. Data Source: Provider Survey; Project Data; Clinician Logs

I-34. Milestone: Care Transition Tool

I-34.1. Metric: X % increase in selected hospital clinicians (e.g. RNs, hospitalists) educated on use of evidence based care transition tool or framework.

a. Numerator: The number of selected hospital clinicians (e.g. RNs, hospitalists) who have been educated on use of use of evidence based care transition tool or framework

b. Denominator: The number of selected hospital clinicians (e.g. RNs, hospitalists) in the RHP Project Site

c. Data Source: Provider Survey; Project Data; Clinician Logs

I-35. Milestone: Use of Care Transition Tool by Post-Acute Partner Staff

I-35.1. Metric: X% increase in Post-Acute Partner Staff educated on use of evidence based care transition tool or framework.

a. Numerator: The number of Post-Acute Partner Staff who have been educated on use of use of evidence based care transition tool or framework

b. Denominator: The number of Post-Acute Partner Staff in the RHP Project Site

c. Data Source: Provider Survey; Project Data; Clinician Logs

I-36. Milestone: Patient / Family Communication

I-36.1. Metric: X% increase in patients / families who are provided with appropriate education upon discharge

a. Numerator: The number of patients / families who are provided with appropriate education upon discharge

b. Denominator: The number of patients / families who are in the RHP Project Site

c. Data Source: Provider Survey; Project Data; Clinician Logs; Patient / Family Satisfaction Survey

I-37. Milestone: Improvement in percentage of “High Risk” patients with customized care plans before discharge

I-37.1. X percent improvement in percentage of “High Risk” patients with customized care plans before discharge

a. Report on “High Risk” patients with customized care plan before discharge

I-38. Milestone: Customized Care Plans

I-38.1. Metric: X% increase in High Risk Patients who are discharged with customized care plans

a. Numerator: The number of high risk patients discharged from inpatient settings who are provided with customized care plans upon discharge

b. Denominator: The number of high risk patients discharged from inpatient settings within the RHP Project Site

c. Data Source: Medical Records; Project Data; Clinician Logs; Patient / Family Satisfaction Survey

I-39. Milestone: Enhanced Screening and Assessment

I-39.1. Metric: X% increase in target inpatient population members screened and assessed for a substance abuse or mental health disorder

a. Numerator: The number of patients in the target population discharged from inpatient settings who were screened and assessed for a substance abuse or mental health disorder.

b. Denominator: The number of patients in the target population discharged from inpatient settings

c. Data Source: Medical Records; Project Data; Clinician Logs

I-40. Milestone: Assessment and Follow-up

I-40.1. Metric: X% increase in target inpatient population members who have been discharged and have received clinician follow-up calls to review treatment plans and assess compliance.

a. Numerator: The number of patients in the target population discharged from inpatient settings who have received follow-up contact (two attempts) to review treatment plans and assess compliance.

b. Denominator: The number of patients in the target population discharged from inpatient settings

c. Data Source: Medical Records; Project Data; Clinician Logs

I-41. Milestone: Timely Transmission of Transition Record (NQF# 0648)

I-41.1. Metric: X% increase in discharged patients for whom a transition record was transmitted to the receiving community provider within 24 hours of discharge.

a. Numerator: The number of discharged patients within the RHP project site for whom a transition record was transmitted to the receiving community provider within 24 hours of discharge.

b. Denominator: The number of discharged patients within the RHP project site.

c. Data Source: Medical Records; Project Data; Clinician Logs

I-42. Milestone: Follow-up after Hospitalization

I-42.1. Metric: X% increase in number of patients receiving Follow-Up After Hospitalization for Mental Illness within 7 and 30 days (NQF#-576)

a. Numerator: Number of discharges for target population who were hospitalized for treatment of selected mental health disorder s and who had an outpatient visit, an intensive outpatient encounter or partial hos pitalization with a mental health practitioner within 7 and 30 days after discharge.

b. Denominator: Number of discharges for target population who were hospitalized for treatment of selected mental health disorders

c. Data Source: Project Data; Encounter/ Claims Data; Medical Records

I-43. Milestone: Preventable All-Cause Admissions and Readmissions

I-43.1. Metric: X% decrease in preventable all-cause admissions and readmissions to psychiatric and other inpatient facilities;

a. Numerator: The number of individuals in the target population in the RHP service area receiving improved care transition services that had a potentially preventable readmission within the measurement period.

b. Denominator: The number of individuals in the RHP service area in the target population receiving improved care transition services
This would be measured at specified time intervals throughout the project to determine if there was a decrease.

c. Data Source: Claims/ encounter and clinical record data; anchor hospital and other partner hospitals, local MH authority and state MH(CARE) data system records

d. Rationale/Evidence: See Project Goal

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]

b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

2.18 Recruit, train, and support consumers of mental health services to provide peer support services

Project Goal:
The goal of this project is to use consumers of mental health services who have made substantial progress in managing their own illness and recovering a successful life in the community to provide peer support services. These services are supportive and not necessarily clinical in nature. Building on a project originally established under the State's Mental Health Transformation grant, consumers are being trained to serve as peer support specialists. In addition to the basic peer specialist training and certification, an additional training is provided to certified peers specialists in "whole health". With the whole health training peer specialists learn to work with other consumers to set achievable goals to prevent or self-manage chronic diseases such as diabetes and COPD. While such training currently exists, very limited numbers of peers are trained due to resource limitations. Evidence exists that such an approach can work with particularly vulnerable populations with serious mental illness[213]. The need for strategies to improve the health outcomes for people with behavioral health disorders is evidenced by their disparate life expectancy (dying 29 years younger than the general population[214]), increased risk of mortality and poor health outcomes as severity of behavioral health disorders increase[215]

Project Options

2.18.1 Design, implement, and evaluate whole health peer support for individuals with mental health and /or substance use disorders.
Required core project components:

- **a)** Train administrators and key clinical staff in the use of peer specialists as an essential component of a comprehensive health system.
- **b)** Conduct readiness assessments of organization that will integrate peer specialists into their network.
- **c)** Identify peer specialists interested in this type of work.
- **d)** Train identified peer specialists in whole health interventions, including conducting health risk assessments, setting SMART goals, providing educational and supportive services to targeted individuals with specific disorders (e.g. hypertension, diabetes, or health risks (e.g. obesity, tobacco use, physical inactivity.
- **e)** Implement health risk assessments to identify existing and potential health risks for behavioral health consumers.
- **f)** Identify patients with serious mental illness who have health risk factors that can be modified.
- **g)** Implement whole health peer support.

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213 Benjamin G. Druss, MD, MPH, Liping Zhao, MSPH, Silke A. von Esenwein, PhD, Joseph R. Bona, MD, MBA, Larry Fricks, Sherry Jenkins-Tucker, Evelina Sterling, MPH, CHES, Ralph DiClemente, PhD, and Kate Lorig, RN, DrPH, The Health and Recovery Peer (HARP) Program: A peer-led intervention to improve medical self-management for persons with serious mental illness, Schizophrenia Research, Volume 118, Issue 1 , Pages 264-270, May 2010
214 Parks, J, Svendsen, D, et. al. "Morbidity and Mortality in People with Serious Mental Illness", National Association of State Mental Health Program Directors, 2006.
215 Druss BG, Reisinger Walker E., "Mental Disorders and Medical Co-Morbidity." Robert Wood Johnson Foundation, The Synthesis Project: Issue 21 (2011).

h) Connect patients to primary care and preventive services.

i) Track patient outcomes. Review the intervention(s) impact on participants and identify "lessons learned," opportunities to scale all or part of the intervention(s) to a broader patient population, and identify key challenges associated with expansion of the intervention(s), including special considerations for safety-net populations.

2.18.2 "Other" project option: Implement other evidence-based project to recruit, train, and support consumers of mental health services to provide peer support services in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project.

Note: All of the project options in project area 2.18 should include a component to conduct quality improvement for the project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, "lessons learned," opportunities to scale all or part of the project to a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations.

Process Milestones:

P-1. Milestone: Train administrators and key clinicians (e.g. PCP, BH clinicians) on:

- Understanding what recovery/wellness is and that it is possible
- Understanding the value of peer specialists and peer support workers
- Understanding how to integrate and support peer workers in their organizations

P-1.1. Metric: Number of staff trained

P-1.2. Metric: Positive participant evaluations of training

a. Data Source: Training records and training evaluation records

P-2. Milestone: Conduct an organizational readiness assessment to determine what changes must occur to successfully integrate peers into the traditional workforce.

P-2.1. Metric: Number of assessments conducted

a. Data Source: Organization records of assessment scores

P-3. Milestone: Identify and train peer specialists to conduct whole health classes.

P-3.1. Metric: Number of peers trained in whole health planning

a. Data Source: Training records

P-4. Milestone: Select and implement a health risk assessment (HRA) tool.

P-4.1. Metric: Number of HRAs completed by consumers.

a. Data Source: Internal data base

P-5. Milestone: Identify health risks of consumers with serious mental illness.

P-5.1. Metric: Number of consumers identified with modifiable health risks.

a. Data Source: Internal data base

P-6. Milestone: Implement peer specialist services that produce person-centered wellness plans targeting individuals with specific chronic disorders or identified health risk factors.

P-6.1. Metric: Number of participants receiving peer services.

P-6.2. Metric: Number and quality of person centered wellness plans.

a. Data Source: Internal records and clinical records

P-7. Milestone: Evaluate and continuously improve peer support services

P-7.1. Metric: Project planning and implementation documentation demonstrates plan, do, study act quality improvement cycles

a. Data Source: Project reports include examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement (i.e. how the project continuously uses data such as weekly run charts, monthly dashboards with data on readmissions, and feedback from consumers to drive improvement)

P-8. Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-8.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-8.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.

a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-9. Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim

measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.

P-9.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.

a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals

b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-10. Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.

P-10.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.

a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-10.2. Metric: Implement the "raise the floor" improvement initiatives established at the semiannual meeting.

a. Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" and "raise the bar" for performance across providers.

Customizable Process Milestone P-X: This milestone(s) may be used to include process milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

P-X Milestone: [Plan should include text describing process milestone intended to assist in achieving improvements in project area]

P-X.1 Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the process milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the process metric]
b. Data Source: [Plan should include data source]

Examples of Metrics to be further refined and described by the performing provider for Process Milestone P-X:

- Metric: Conduct needs assessment, literature review for evidence-based practices and tailor intervention to local context
- Metric: Engage stakeholders, identify resources and potential partnerships, and develop intervention plan (including implementation, evaluation, and sustainability).
- Metric: Community or population outreach and marketing, staff training, implement intervention.
- Metric: Evaluate intervention, modify intervention as appropriate, develop policies/ procedures, and share lessons learned

Improvement Milestones

I-17. Milestone: Receipt of Recommended Preventative Services

I-17.1. Metric: The percentage of individuals 18 years and older who receive peer support services and who also receive services as recommended by the US Preventative Services Task Force.

a. Numerator: The number of people receiving services as recommended by the US Preventative Services Task Force
b. Denominator: Individuals aged 18 years and older who receive peer support services.
c. Data Source: Clinical Records
d. Rationale/Evidence: See project goal.

I-18. Milestone: Health Outcomes

I-18.1. Metric: Improvements in standardized health measures for consumers who participate in whole health peer support

a. Numerator: The number of people who participate in whole health peer support and experience improvement in standardized health measures
b. Denominator: The number of people who participate in whole health peer support in the RHP Sites.
c. Data Source: Project Data; Medical Record Data; Participant Surveys;

Note: RHP may select from health measures, including but not limited to: NQF# 0549-- Pharmacotherapy Management of COPD Exacerbation (PCE); NQF# 0047--Asthma: Pharmacologic Therapy for Persistent Asthma; NQF#0575-- Comprehensive Diabetes Care: HbA1c control (< 8.0%); and NQF# 0074 Chronic Stable Coronary Artery Disease: Lipid Control.

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this

milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]

I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]

a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]

b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

2.19 Develop Care Management Function that integrates primary and behavioral health needs of individuals

Project Goal:
Provide a targeted care management intervention program for the population of people with co-occurring mental health, substance use and chronic physical disorders to increase use of primary and specialty care and reducing the use of ER, crisis and jail diversion services. The prevalence of co-occurring mental health, substance use and chronic physical disorders is high in the indigent population. This is due to the lack of access to and the complexity of navigating primary care and specialty care services. These individuals end up consuming a great deal of community resources due to ER visits, involvement of crisis response systems and often unnecessary incarcerations when routine treatment would be a better alternative. Early engagement in appropriate services to address the multiple conditions for these individuals, as well as their needs for housing and social support, requires both behavioral health case managers and chronic disease care managers working closely to make service settings accessible and to track progress.

Project Options:

2.19.1 Design, implement, and evaluate care management programs and that integrate primary and behavioral health needs of individual patients
Required core project components:

a) Conduct data matching to identify individuals with co-occurring disorders who are:
- not receiving routine primary care,
- not receiving specialty care according to professionally accepted practice guidelines,
- over-utilizing ER services based on analysis of comparative data on other populations,
- over-utilizing crisis response services.
- Becoming involved with the criminal justice system due to uncontrolled/unmanaged symptoms.

b) Review chronic care management best practices such as Wagner's Chronic Care Model and select practices compatible with organizational readiness for adoption and implementation.

c) Identification of BH case managers and disease care managers to receive assignment of these individuals.

d) Develop protocols for coordinating care; identify community resources and services available for supporting people with co-occurring disorders.

e) Identify and implement specific disease management guidelines for high prevalence disorders, e.g. cardiovascular disease, diabetes, depression, asthma.

f) Train staff in protocols and guidelines.

g) Develop registries to track client outcomes.

h) Review the intervention(s) impact on quality of care and integration of care and identify "lessons learned," opportunities to scale all or part of the intervention(s) to a broader patient population, and identify key challenges associated with expansion of the intervention(s), including special considerations for safety-net populations.

2.19.2 "Other" project option: Implement other evidence-based project to develop care management function that integrates primary and behavioral health needs in an innovative manner not described in the project options above. Providers implementing an innovative, evidence-based project using the "Other" project option may select among the process and improvement milestones specified in this project area or may include one or more customizable process milestone(s) P-X and/or improvement milestone(s) I-X, as appropriate for their project.

Note: All of the project options in project area 2.19 should include a component to conduct quality improvement for the project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, "lessons learned," opportunities to scale all or part of the project to a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations.

Process Milestones:

P-1. Milestone: Implement the medical home model in primary care clinics

P-1.1. Metric: Increase number of primary care clinics using medical home model

a. Numerator: Number of primary care clinics using medical home model

b. Denominator: Total number of primary care clinics

c. Data Source: Project data

d. Rationale/Evidence: NAPH found that nearly 40% of programs could offer either anecdotal or quantitative evidence of reduced ED usage—attributed to the redirection of primary care-seeking patients from the ED to a medical home.[216] In addition to reductions in ED utilization, the medical home model has helped improve the delivery and quality of primary care and reduce costs.

P-2. Milestone: Identify community agencies that have the relevant data to identify the service utilization patterns of persons with co-occurring disorders.

P-2.1. Metric: Listing of relevant agencies and the data elements each has available.

a. Data Source: Records of lead organization

P-3. Milestone: Data sharing agreements are in place to allow authorized use of information among relevant agencies.

P-3.1. Metric: Number of agencies participating in data sharing agreements.

a. Data Source: Written documents

P-4. Milestone: Data matching is performed identifying service utilization patterns of people with co-occurring disorders and analysis conducted to identify over and under utilization patterns.

P-4.1. Metric: Data analysis report produced.

a. Data Source: Written report

P-5. Milestone: BH case managers and disease care managers are identified.

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P-5.1. Metric: Number of staff identified with the capacity to support the targeted population.
a. Data Source: Staff rosters and documents of caseloads.

P-6. Milestone: Care coordination protocols are developed.
P-6.1. Metric: Written protocols are easily available to staff.
a. Data Source: Written protocols

P-7. Milestone: Disease management guidelines are identified and being used to guide treatment.
P-7.1. Metric: Evidence that guidelines are being followed.
a. Data Source: Clinical records.

P-8. Milestone: Staff members are trained in care coordination protocols and practice guidelines for disorders identified in the data matching.
P-8.1. Metric: Percent of staff receiving training.
a. Data Source: Training records

P-9. Milestone: Identify registries to track client outcomes. If no registry available, follow steps 9-19.
P-9.1. Metric: Registries are being used to track specific individual outcomes for each disorder.
a. Data Source: Registry document on line.

P-10. Milestone: Assess chronic disease registry functionality in electronic health record (EHR) systems.
P-10.1. Metric: Review and analyze functionality and interface capability for EHR systems used by hospitals and affiliated provider practices to determine if they have necessary elements for a chronic disease registry. Necessary elements may include inpatient admissions, emergency department visits, test results, medications, weight, activity level changes and/or diet changes
a. Data Source: EHR systems

P-11. Milestone: Develop an interface plan between EHR systems used by hospital and affiliated physician office practices.
P-11.1. Metric: Production of interface model
a. Data Source: EHR systems

P-12. Milestone: Issue Request for Proposal for a chronic disease registry.
P-12.1. Metric: Analyze responses from top vendors to determine gaps in hospital/physician practice EHR systems to support a chronic disease registry
a. Data Source: Documentation of RFP

P-13. Milestone: Select appropriate IT solution based on system functionality and procure a chronic disease registry.
P-13.1. Metric: Procurement contract
a. Data Source: Documentation of contract

P-14. Milestone: Evaluate workflow and use of chronic disease registry using Lean methodology.
- P-14.1. Metric: Review current and future state of workflow using chronic disease registry and identification of barriers to implementation
  - a. Data Source: Review of Lean event

P-15. Milestone: Identify hospital and affiliated organization staff that will use the chronic disease registry.
- P-15.1. Metric: list of users by location and by priority of use by functional area
  - a. Data Source: List of users

P-16. Milestone: Develop an implementation plan for a chronic disease registry.
- P-16.1. Metric: Development of implementation plan
  - a. Data Source: Documentation of plan

P-17. Milestone: Pilot test the selected chronic disease registry.
- P-17.1. Metric: Evaluate and identify gaps in information exchange in the registry within the hospital's identified staff and departments
  - a. Data Source: Implementation and testing plan

P-18. Milestone: Identify target patient population with chronic disease to be entered into the registry.
- P-18.1. Metric: Document patients to be entered into the registry
  - a. Data Source: Internal hospital records/documentation

P-19. Milestone: Develop and implement test plan to determine accuracy of information populated into the registry.
- P-19.1. Metric: Implement and document results of test plan
  - a. Data Source: Test plan

P-20. Milestone: Educate and train staff on the chronic disease registry.
- P-20.1. Metric: Documentation of training materials/attendance
  - a. Data Source: Attendance list and educational content

Improvement Milestones:

I-21. Milestone: Increase use of routine preventive and primary care.
- I-21.1. Metric: X% increase in routine visits.
  - a. Data Source: Encounter / claims data
- I-21.2. Metric: X% decrease in no show rates
  - a. Data Source: Clinic registry data

I-22. Milestone: Increase use of specialty care in line with professionally accepted practice guidelines.
- I-22.1. Metric: X% increase/decrease use of specialty care according to practice guidelines
  - a. Data Source: Internal quality review documents

I-23. Milestone: Decrease use of high cost settings such as ER, inpatient, jail
- I-23.1. Metric: X% decrease in ER, jail days
  - a. Data Source: Encounter / claims data, arrest records
- I-23.2. Metric: X% decrease in potentially preventable inpatient stays
  - a. Data Source: Encounter / claims data

I-24. Milestone: Go-Live – Enter patient information in the disease registry for target patient population with chronic disease.
- I-24.1. Metric: Identify gaps, via a review of the identified registry elements above, in treatments as identified Best Practices for the target patient population with a chronic disease
  - a. Data Source: Documentation of patients entered and gaps identified

I-25. Milestone: Identify patients with chronic disease entered into registry who receive instructions appropriate for their chronic disease such as: activity level, diet, medication management, etc.
- I-25.1. Metric: X percent increase of patients with chronic disease who receive appropriate disease specific instructions.
  - a. Data Source: Chronic disease registry

Customizable Improvement Milestone I-X: This milestone(s) may be used to include improvement milestones and metrics that are not otherwise included for this project area. If customizable milestones are included, the provider should explain the justification for using this milestone and the rationale and evidence supporting its use in the project narrative in the RHP Plan.

I-X. Milestone: [Plan should include text describing improvement milestone]
- I-X.1. Metric: [Plan should include text describing a quantitative or qualitative indicator of progress toward achieving the improvement milestone]
  - a. Baseline/goal [Plan should include the appropriate baseline or goal relevant to the improvement metric]
  - b. Data Source: [Plan should include data source]

Examples of metrics to be further refined and described by the Performing Provider for Improvement Milestone I-X:

- Metric: Target population reached
- Metric: Short-term outcomes (e.g., increased knowledge and awareness, increased skills, adoption of new guidelines, policies or practices, policy development.
- Metric: Intermediate outcomes (e.g., changes in provider norms, increased adherence to guidelines by providers, increased adherence to guidelines by patients)
- Metric: Long-term outcomes (e.g., changes in patient utilization rates, changes in provider behavior).
- Metric: Other program output measure as identified by the performing provider.

Category 3 Quality Improvements

Category 3 Introduction
The overall objective of Category 3 is to assess the effectiveness of Category 1 and 2 interventions. As described in the Program Funding and Mechanics (PFM) Protocol, each project selected in Categories 1 and 2 will have an associated outcome measure from Category 3.

For the purposes of the RHP Planning and PFM Protocols, outcome measures are defined as "*measures that assess the results of care experienced by patients, including patients' clinical events, patients' recovery and health status, patients' experiences in the health system, and efficiency/cost."*

Outcomes in Category 3 consist of Process Milestones during DY2 and DY3 and Improvements Targets beginning no later than DY4. Process milestones will define what activities are undertaken to prepare for measuring and reporting of the outcomes in future years. These activities could include development of the plans to prepare for reporting, establishment of the baselines, and preparing data systems, among other activities.

Outcomes for Category 3 include

- Process Milestones for DY 2 and DY3
- Improvement Targets for DY4 and DY5 (could also be in DY3 for hospital inpatient projects)

The process milestones and improvement targets listed in this category will be specified by the performing provider, tailored to meet the target population and intervention goals of the related Category 1 and 2 projects.

The outcome improvement targets are labeled as standalone measures or non-standalone measures. Providers can select among the following methods to meet Category 3 requirements for each Category 1 and 2 project:

- **At least one standalone measure:** Providers can select a standalone measure from any outcome domain listed in the table below for Category 1 and 2 projects. Cost-related outcomes may be used as the standalone outcome only for project area 2.5 (Cost Containment). Cost outcomes can be selected as non-standalone measures for other project areas.
- **At least one standalone measure and additional non-standalone measure(s):** One or more non-standalone measures from any outcome domain can be combined with at least one standalone measure. If the selected measures are from different domains, the provider must includes a valid, evidence-based rationale explaining how the measures are complementary.
- **A combination of at least 3 non-standalone measures from the same outcome domain:** A provider can select a combination of 3 non-standalone measures for a Category 1 or 2 project as long as the measures come from the same outcome domain.

All Category 3 improvement targets listed below are evidence based and nationally endorsed by National Quality Forum (NQF), Agency for Healthcare Research and Quality (AHRQ), Centers for Medicare and Medicaid Services (CMS) or another nationally recognized organization.
Outcomes included in Category 3 for DY4 and DY5 as listed below do not represent an all-inclusive list of outcome measures. Performing providers can propose additional outcomes specific to their projects. The two tables below can be used as a guide for identifying outcome domains as they relate to the Category 1 and 2 project areas.

Project Area → / Outcome Domain ↓	1.1 PC Capacity	1.2 PC Work-force	1.3 Chronic Disease Registry	1.4 Interp. Services/ Culturally Competent Care	1.5 Collect REAL Data	1.6 Urgent Care/ Advice	1.7 Telemedi-cine/ Telehealth	1.8 Dental Servi-ces	1.9 Specialty Care Capacity	1.10 Perfor-mance Improve-ment	1.11 Tech. assisted services for BH	1.12 Appropriate levels of BH care	1.13 BH crisis stabilization services	1.14 Work-force for BH
PC & Chronic Disease (&)	X	X	X			X	X		X		X			X
PPA (*)	X	X	X	X	X	X	X	X	X		X			X
PPR (*)	X	X	X	X	X	X	X		X		X		X	X
PPC/ HAC (&)				X		X	X		X	X				
Cost (^)	X	X	X			X	X	X	X	X	X	X	X	X
Patient Satisfaction-ion (*)	X	X	X	X		X	X	X	X	X	X	X	X	X
Oral Health (&)								X						
Perinatal Outcomes (&)	X	X					X		X		X			
Right Care (*)	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Functional Status/QOL (*)	X	X	X		X			X			X	X	X	
Health Disparities (&)	X	X	X	X	X		X	X	X	X	X	X	X	
Primary Care and Prevention (^)	X	X	X	X	X		X	X	X	X	X			
Palliative Care (&)				X			X							

* indicates all measures in this domain are stand alone
& indicates measures in this domain are stand alone and non-stand alone
^ indicates all measures in this domain are non-stand alone

This table identifies outcome domains as they may relate to project areas in Category 1. This list is not exhaustive or intended to dictate metric selection by project area, but more, offers guidance around how these outcomes can apply to the project areas, depending on the specific interventions proposed. Performing providers are expected to provide rationale for how each improvement target (metric) selected relates to the specific Category 1 project proposed.

2.20 Expand Primary Care Capacity
2.21 Increase Training of Primary Care Workforce
2.22 Implement a Chronic Disease Management Registry
2.23 Enhance Interpretation Services and Culturally Competent Care
2.24 Collect Valid and Reliable Race, Ethnicity, and Language (REAL) Data to Reduce Disparities
2.25 Expand Access to Urgent Care and Enhance Urgent Medical Advice
2.26 Introduce, Expand, or Enhance Telemedicine/Telehealth
2.27 Increase, Expand, and Enhance Dental Services
2.28 Expand Specialty Care Capacity
2.29 Enhance Performance Improvement and Reporting Capacity
2.30 Implement technology-assisted services (telehealth, telemonitoring, telementoring, or telemedicine) to support, coordinate, or deliver behavioral health services
2.31 Enhance service availability (i.e., hours, locations, transportation, mobile clinics) to appropriate levels of behavioral health care
2.32 Development of behavioral health crisis stabilization services as alternatives to hospitalization.
2.33 Develop Workforce enhancement initiatives to support access to behavioral health providers in underserved markets and areas (e.g., psychiatrists, psychologists, LMSWs, LPCs and LMFTs.)

Project Area → / Outcome Domain ↓	2.1 Medical Homes	2.2 Chronic Care Mgmt	2.3 Redesign PC	2.4 Redesign Pt. Exp	2.5 Cost	2.6 HP	2.7 Dis Prev.	2.8 PI	2.9 Pt. Nav.	2.10 Palliative Care	2.11 Rx Manage	2.12 Care Transitions Programs	2.13 BH Intervention	2.14 Well-ness	2.15 PC and BH	2.16 Guidance to BH providers	2.17 Care transitions for BH/SA	2.18 Peer support	2.19 Care Mgmt Inte-grate PC & BH
PC & Chronic Disease (&)	X	X	X	X		X	X	X	X				X	X	X	X		X	X
PPA (*)	X	X	X	X		X	X		X	X	X		X	X	X	X			X
PPR (*)	X	X	X	X		X	X		X	X	X	X	X	X	X	X	X		X
PPC/ HAC (&)								X			X		X						
Cost (^)	X	X	X	X	X (*)	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Patient Satisfaction(*)	X	X	X	X		X	X	X	X	X	X	X	X	X	X		X	X	X
Oral Health (&)						X													
Perinatal Outcomes (&)				X		X			X										
Right Care (*)	X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X
Functional Status/QOL (*)	X	X	X	X		X	X		X	X	X	X	X	X	X		X	X	X
Health Disparities (&)	X	X	X	X		X	X		X	X	X	X	X	X	X	X	X	X	X
Primary Care and Prevention (^)	X	X	X	X		X	X		X		X	X			X	X			X
Palliative Care (&)									X	X	X	X							X

* indicates all measures in this domain are stand alone
& indicates measures in this domain are stand alone and non-stand alone
^ indicates all measures in this domain are non-stand alone

This table identifies outcome domains as they may relate to project areas in Category 2. This list is not exhaustive or intended to dictate metric selection by project area, but more, offer guidance around how these outcomes can apply to the project areas, depending on the specific interventions proposed. Performing providers are expected to provide rationale for how each improvement target (metric) selected relates to the specific Category 2 project proposed.

2.1 Enhance/Expand Medical Homes
2.2 Expand Chronic Care Management Models
2.3 Redesign Primary Care
2.4 Redesign to Improve Patient Experience
2.5 Redesign for Cost Containment
2.6 Implement Evidence-based Health Promotion Programs
2.7 Implement Evidence-based Disease Prevention Programs
2.8 Apply Process Improvement Methodology to Improve Quality/Efficiency
2.9 Establish/Expand a Patient Care Navigation Program
2.10 Use of Palliative Care Programs
2.11 Conduct Medication Management
2.12 Implement/Expand Care Transitions Programs
2.13 Provide an intervention for a targeted behavioral health population to prevent unnecessary use of services in a specified setting (i.e., the criminal justice system, ER, urgent care etc.)
2.14 Implement person-centered wellness self-management strategies and self directed financing models that empower consumers to take charge of their own health care
2.15 Integrate Primary and Behavioral Health Care Services
2.16 Provide virtual psychiatric and clinical guidance to all participating primary care providers delivering services to behavioral patients regionally
2.17 Establish improvements in care transition from the inpatient setting for individuals with mental health and / or substance abuse disorders.
2.18 Recruit, train and support consumers of mental health services to provide peer support services
2.19 Develop Care Management Function that integrates primary and behavioral health needs of individuals

Process Milestones – DY2 and DY3

These are the milestones that the performing provider will report on throughout DYs 2-3. Metrics, data sources, goals and rationale will be specified by the performing provider for each of the selected process milestones listed below.

P- 1 Project planning - engage stakeholders, identify current capacity and needed resources, determine timelines and document implementation plans
P- 2 Establish baseline rates
P- 3 Develop and test data systems
P- 4 Conduct Plan Do Study Act (PDSA) cycles to improve data collection and intervention activities
P- 5 Disseminate findings, including lessons learned and best practices, to stakeholders
P- 7 Other activities not described above

Improvement Targets – DY4 and DY5 (can also start in earlier years)

Providers can select outcome improvement targets from the list below as they relate to their Category 1 and 2 projects. Providers can also propose outcomes not included in this list as long as they meet the above definition of an outcome measure. Providers should explicitly explain why the new outcome measure they are proposing is appropriate for their population and their project and demonstrate that it is based on local data and their community needs assessment.

Providers will specify how the outcome and the Category 1 or 2 projects are related (specifically, why that outcome was identified as the best suited to measure the impact of the Category 1/2 intervention) and identify improvement target goals. Providers should include an evidence-based explaining how each Category 1 or 2 project will achieve the selected improvement target(s) by DY4 and 5 and demonstrate a logical progression between the process milestones above and the outcome selected below.

Category 3 Outcomes are organized into related domains: Primary Care and Chronic Disease Management, Potentially Preventable Admissions, Readmissions and Complications, Cost of Care, Patient Satisfaction, Oral Health, Perinatal Care, Right Care in Right Setting and Patient Centeredness, Functional Status, Health Disparities, Primary Care and Primary Prevention, and Palliative Care. Each domain includes a list of the suggested improvement targets with metrics that contain metric specifications (numerator and denominator, where applicable) that the provider will report according to the schedule and relative to the baseline and prior reporting year, as identified in the PFM Protocol.

Outcome Domains

OD-1- Primary Care and Chronic Disease Management

IT-1.1 Third next available appointment[217,218]: *(Non- standalone measure)*

Average length of time in days between the day a patient makes a request for an appointment with a physician and the third available appointment for a new patient physical, routine exam, or return visit exam.

a Numerator: Continuous variable statement: Average number of days to third next available appointment for an office visit for each clinic and/or department.

b Denominator: This measure applies to providers within a reported clinic and/or department

- Inclusions: This measure applies to providers* within a reported clinic and/or department**

  *Providers:

  A. All providers are included. Full-time and part-time providers are included, regardless of the number of hours s/he practices per week.
     1. Providers who truly job share are counted as one provider (i.e., they share one schedule, and/or they work separate day and share coverage of one practice).
     2. When measuring a care team, each member of the care team is counted separately (i.e., MD, NP, PA).
     3. If a provider is practicing in a specialty other than the one which s/he is board certified, the provider should be included in the specialty in which s/he is practicing.
     4. For providers practicing at more than 1 location, measure days to third next available for only the provider's primary location as long as the provider is at that location 51%+ of their time.
     5. New providers who started seeing patients during the reporting period and have an active schedule should be included.
  B. Locums are included in the measure only if they are assigned to a specific site for an extended period of time (greater than 4 weeks) and provide continuity care to a panel of patients.
  C. Mid-Level providers are included in the measure (NP, PA, CNM).
     1. Mid-Level providers should have continuity practice and their own schedule available to see patients.
  D. Resident Providers are to be included if they have an active schedule AND are considered a Primary Care Provider within the organization.
  E. Providers with closed practices should be included. They still have to schedule their current patients. In addition, it may not be clear when they start seeing new patients again.

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[217] http://www.ihi.org/knowledge/Pages/Measures/ThirdNextAvailableAppointment.aspx
[218] http://www.qualitymeasures.ahrq.gov/popups/printView.aspx?id=23918

**Departments:

1. Primary Care
   a. General Internal Medicine
   b. Family Practice
   c. Pediatrics with the focus on generalists, not specialists
   d. Med/Peds (physicians who see both adults and children)
2. Specialty Care
   a. Obstetrics
      1. Physical exam - New OB visit

- Exclusions:
  - Exclude clinicians who do not practice for an extended period of time (greater than 4 weeks) due to maternity leave, sabbatical, family medical leave.
  - Mid-Level providers who function only as an "extender," overflow to another practice, or urgent care should not be included.
  - Exclude Resident Providers if they are not considered a Primary Care Provider, have an inconsistent schedule, and a restricted patient panel.

c Data Source: Appointment management system

d Rationale/Evidence: Access is a measure of the patient's ability to seek and receive care with the provider of their choice, at the time they choose, regardless of the reason for their visit. Counting the third next available appointment is the healthcare industry's standard measure of access to care and indicates how long a patient waits to be seen. Access to healthcare is important to the quality of healthcare outcomes. Patients who can promptly schedule appointments with their healthcare providers will have higher satisfaction, will likely return to work sooner, and may well have better medical outcomes.

- *Overarching Goals:*
  - Decrease number of days to third next available appointment to zero days (same day) for Primary Care.
  - Decrease number of days to third next available appointment to two days for Specialty Care.

- *Data Collection*: Sample all physicians on team the same day of the week, once a week. Count the number of days between a request for an appointment (e.g., enter dummy patient) with a physician and the third next available appointment for a new patient physical, routine exam, or return visit exam. Report the average number of days for all physicians sampled. Note: Count calendar days (e.g. include weekends) and days off. Do not count any saved appointments for urgent visits (since they are "blocked off" on the schedule.) The data collection can be done manually or electronically. Manual collection means looking in the schedule book and counting from the "index" (day when the "dummy" appointment is requested) to the day of the third available appointment. Some electronic

scheduling systems can be programmed to compute the number of days automatically.

IT-1.2 Annual monitoring for patients on persistent medications (NCQA-HEDIS 2012)[219]– angiotensin converting enzyme (ACE) inhibitors or angiotensin receptor blockers (ARBs) (*Non- standalone measure*)

Percentage of members 18 years of age and older who received at least 180 treatment days of ACE inhibitors or ARBs during the measurement year and had at least one serum potassium and either a serum creatinine or a blood urea nitrogen therapeutic monitoring test in the measurement year.[220]

a Numerator: Members from the denominator with at least one serum potassium *and* either a serum creatinine or a blood urea nitrogen therapeutic monitoring test in the measurement year (refer to Table MPM-A in the original measure documentation for codes to identify physiologic monitoring tests)

Inclusions
Members from the denominator with at least one serum potassium and either a serum creatinine or a blood urea nitrogen therapeutic monitoring test in the measurement year (refer to Table MPM-A in the original measure documentation for codes to identify physiologic monitoring tests). The member must meet one of the following criteria to be compliant.

- A code for a lab panel test during the measurement year
- A code for a serum potassium and a code for serum creatinine during the measurement year
- A code for serum potassium and a code for blood urea nitrogen during the measurement year

Note: The tests do not need to occur on the same service date, only within the measurement year.

b Denominator: Members 18 years of age and older as of December 31 of the measurement year on persistent angiotensin converting enzyme (ACE) inhibitors or angiotensin receptor blockers (ARBs) -- defined as members who received at least 180 treatment days of ambulatory medication during the measurement year

Inclusions:
Members 18 years of age and older as of December 31 of the measurement year on persistent angiotensin converting enzyme (ACE) inhibitors or angiotensin receptor blockers (ARBs) -- defined as members who received at

[219] This addresses 4 drug types (using 2012 specifications) – it is then reported as 4 rates – so it is a composite measure. Measure specifications are in development.
http://www.ncqa.org/tabid/1442/Default.aspx
http://www.ncqa.org/LinkClick.aspx?fileticket=O-31v4G27sU%3d&tabid=1415
[220] http://www.qualitymeasures.ahrq.gov/content.aspx?id=34028

least 180 treatment days of ambulatory medication during the measurement year

Note:

- Members must have been continuously enrolled during the measurement year.
- Allowable gap: No more than one gap in enrollment of up to 45 days during each year of continuous enrollment (commercial, Medicare). To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage.
- Treatment days are the actual number of calendar days covered with prescriptions within the measurement year (i.e., a prescription of 90 days supply dispensed on December 1 of the measurement year counts as 30 treatment days).
- Refer to Table CDC-L in the original measure documentation to identify ACE inhibitors and ARBs. Members may switch therapy with any medication listed in Table CDC-L during the measurement year and have the days supply for those medications count toward the total 180 treatment days (i.e., a member who received 90 days of ACE inhibitors and 90 days of ARBs meets the denominator definition for this measure).

Exclusions:
Exclude members who had an inpatient (acute or nonacute) claim/encounter during the measurement year.

c Data Source: EHR, Claims

d Rationale/Evidence: Patient safety is highly important, especially for patients at increased risk of adverse drug events from long-term medication use. Persistent use of these drugs warrants monitoring and follow-up by the prescribing physician to assess for side-effects and adjust drug dosage/therapeutic decisions accordingly. The drugs included in this measure also have more deleterious effects in the elderly. The costs of annual monitoring are offset by the reduction in health care costs associated with complications arising from lack of monitoring and follow-up of patients on long-term medications. The total costs of drug-related problems due to misuse of drugs in the ambulatory setting has been estimated to exceed $76 billion annually. Appropriate monitoring of drug therapy remains a significant issue to guide therapeutic decision making and provides largely unmet opportunities for improvement in care for patients on persistent medications

IT-1.3 Annual monitoring for patients on persistent medications (NCQA-HEDIS 2012)221**– digoxin (*Non- standalone*)**

Percentage of members 18 years of age and older who received at least 180 treatment days of digoxin during the measurement year and had at least one serum potassium and either a serum creatinine or a blood urea nitrogen therapeutic monitoring test in the measurement year.[222]

a Numerator: Members from the denominator with at least one serum potassium *and* either a serum creatinine or a blood urea nitrogen therapeutic monitoring test in the measurement year (refer to Table MPM-A in the original measure documentation for codes to identify physiologic monitoring tests)

Inclusions
Members from the denominator with at least one serum potassium and either a serum creatinine or a blood urea nitrogen therapeutic monitoring test in the measurement year (refer to Table MPM-A in the original measure documentation for codes to identify physiologic monitoring tests). The member must meet one of the following criteria to be compliant.

- A code for a lab panel test during the measurement year
- A code for a serum potassium and a code for serum creatinine during the measurement year
- A code for serum potassium and a code for blood urea nitrogen during the measurement year

Note: The tests do not need to occur on the same service date, only within the measurement year.

b Denominator: Members 18 years of age and older as of December 31 of the measurement year on persistent digoxin -- defined as members who received at least 180 treatment days of ambulatory medication during the measurement year

Inclusions
Members* 18 years of age and older as of December 31 of the measurement year on persistent digoxin -- defined as members who received at least 180 treatment days of ambulatory medication during the measurement year
Note: Treatment days are the actual number of calendar days covered with prescriptions within the measurement year (i.e., a prescription of

[221] This addresses 4 drug types (using 2012 specifications) – it is then reported as 4 rates – so it is a composite measure. Measure specifications are in development.
http://www.ncqa.org/tabid/1442/Default.aspx
http://www.ncqa.org/LinkClick.aspx?fileticket=O-31v4G27sU%3d&tabid=1415
[222] http://www.qualitymeasures.ahrq.gov/content.aspx?id=34029

90 days supply dispensed on December 1 of the measurement year counts as 30 treatment days).
*Members must have been continuously enrolled during the measurement year.
Allowable gap: No more than one gap in enrollment of up to 45 days during each year of continuous enrollment (commercial, Medicare). To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage.

Exclusions
Exclude members who had an inpatient (acute or nonacute) claim/encounter during the measurement year.

IT-1.4 Annual monitoring for patients on persistent medications (NCQA-HEDIS 2012)[223]– diuretic ***(Non- standalone measure)***

Percentage of members 18 years of age and older who received at least 180 treatment days of a diuretic during the measurement year and had at least one serum potassium and either a serum creatinine or a blood urea nitrogen therapeutic monitoring test in the measurement year.[224]

a Numerator: Members from the denominator with at least one serum potassium *and* either a serum creatinine or a blood urea nitrogen therapeutic monitoring test in the measurement year (refer to Table MPM-A in the original measure documentation for codes to identify physiologic monitoring tests)

Inclusions
Members from the denominator with at least one serum potassium and either a serum creatinine or a blood urea nitrogen therapeutic monitoring test in the measurement year (refer to Table MPM-A in the original measure documentation for codes to identify physiologic monitoring tests). The member must meet one of the following criteria to be compliant.

- A code for a lab panel test during the measurement year
- A code for a serum potassium and a code for serum creatinine during the measurement year
- A code for serum potassium and a code for blood urea nitrogen during the measurement year

Note: The tests do not need to occur on the same service date, only within the measurement year.

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[223] This addresses 4 drug types (using 2012 specifications) – it is then reported as 4 rates – so it is a composite measure. Measure specifications are in development.
http://www.ncqa.org/tabid/1442/Default.aspx
http://www.ncqa.org/LinkClick.aspx?fileticket=O-31v4G27sU%3d&tabid=1415
[224] http://www.qualitymeasures.ahrq.gov/content.aspx?id=34031

b Denominator: Members 18 years of age and older as of December 31 of the measurement year on persistent digoxin -- defined as members who received at least 180 treatment days of ambulatory medication during the measurement year

Inclusions

Members 18 years of age and older as of December 31 of the measurement year on persistent diuretics -- defined as members who received at least 180 treatment days of ambulatory medication during the measurement year

Note:

Members must have been continuously enrolled during the measurement year.

Allowable gap: No more than one gap in enrollment of up to 45 days during each year of continuous enrollment (commercial, Medicare). To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage.

Treatment days are the actual number of calendar days covered with prescriptions within the measurement year (i.e., a prescription of 90 days supply dispensed on December 1 of the measurement year counts as 30 treatment days).

Refer to Table MPM-C in the original measure documentation to identify diuretics. Members may switch therapy with any medication listed in Table MPM-C during the measurement year and have the days supply for those medications count toward the total 180 treatment days.

Exclusions

Exclude members who had an inpatient (acute or nonacute) claim/encounter during the measurement year.

IT-1.5 Annual monitoring for patients on persistent medications (NCQA-HEDIS 2012)[225]– anticonvulsant
(Non- standalone measure)

Percentage of members 18 years of age and older who received at least 180 treatment days for an anticonvulsant during the measurement year and had at least one drug serum concentration level monitoring test for the prescribed drug in the measurement year.[226]

a Numerator: Members from the denominator with at least one drug serum concentration level monitoring test for the prescribed drug in the measurement

[225] This addresses 4 drug types (using 2012 specifications) – it is then reported as 4 rates – so it is a composite measure. Measure specifications are in development.
http://www.ncqa.org/tabid/1442/Default.aspx
http://www.ncqa.org/LinkClick.aspx?fileticket=O-31v4G27sU%3d&tabid=1415
[226] http://www.qualitymeasures.ahrq.gov/content.aspx?id=34030

year (refer to Table MPM-E in the original measure documentation for codes to identify drug serum concentration monitoring tests) If a member received only one type of anticonvulsant, the drug serum concentration level test must be for the specific drug taken as a persistent medication (i.e., a member on phenytoin received a drug serum test for phenytoin). If a member persistently received multiple types of anticonvulsants, each anticonvulsant medication and drug monitoring test combination is counted as a unique event (i.e., a member on both phenytoin and valproic acid with at least 180 treatment days for each drug in the measurement year must separately show evidence of receiving drug serum concentration tests for each drug [Table MPM-E] to be considered numerator-compliant for each drug).

Inclusions
Members from the denominator with at least one drug serum concentration level monitoring test for the prescribed drug in the measurement year (refer to Table MPM-E in the original measure documentation for codes to identify drug serum concentration monitoring tests)
If a member received only one type of anticonvulsant, the drug serum concentration level test must be for the specific drug taken as a persistent medication (i.e., a member on phenytoin received a drug serum test for phenytoin).
If a member persistently received multiple types of anticonvulsants, each anticonvulsant medication and drug monitoring test combination is counted as a unique event (i.e., a member on both phenytoin and valproic acid with at least 180 treatment days for each drug in the measurement year must separately show evidence of receiving drug serum concentration tests for each drug [Table MPM-E] to be considered numerator-compliant for each drug).

b Denominator: Members 18 years of age and older as of December 31 of the measurement year on persistent anticonvulsants -- defined as members who received at least 180 treatment days of ambulatory medication during the measurement year (see the related "Denominator Inclusions/Exclusions" field)

Inclusions
Members 18 years of age and older as of December 31 of the measurement year on persistent anticonvulsants -- defined as members who received at least 180 treatment days of ambulatory medication during the measurement year
Note:

- Members must have been continuously enrolled during the measurement year.
- *Allowable gap:* No more than one gap in enrollment of up to 45 days during each year of continuous enrollment (commercial, Medicare). To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage.

- Treatment days are the actual number of calendar days covered with prescriptions within the measurement year (i.e., a prescription of 90 days supply dispensed on December 1 of the measurement year counts as 30 treatment days).
- Refer to Table MPM-D in the original measure documentation to identify anticonvulsants. Members who are on multiple anticonvulsant drugs count toward the denominator multiple times if they meet the persistent medications criteria for each drug taken during the measurement year (i.e., a member who received at least 180 days of phenytoin and 180 days of valproic acid is counted twice in the denominator, once for each drug).

Exclusions
Exclude members who had an inpatient (acute or nonacute) claim/encounter during the measurement year.

IT-1.6 Cholesterol management for patients with cardiovascular conditions (NCQA-HEDIS 2012)[227] *(Standalone measure)*

a Numerator: Number of patients who had each of the following during the reporting period:
- Low-density Lipoprotein Cholesterol (LDL-C) Screening: An LDL-C test performed during the measurement year.
- LDL-C Level Less Than 100 mg/dL: The most recent LDL-C level during the measurement year is less than 100 mg/dL.

b Denominator: Patients aged 18 to 75 years as of December 31 of the measurement year who were discharged alive for acute myocardial infarction (AMI), coronary artery bypass graft (CABG), or percutaneous coronary interventions (PCI) from January 1 through November 1 of the year prior to the measurement year, or who had a diagnosis of ischemic vascular disease (IVD) during measurement year and the year prior to the measurement year.

c Data Source: EHR, Registry

d Rationale/Evidence: Total blood cholesterol is directly related to the development of coronary artery disease (CAD) and coronary heart disease (CHD), with most of the risk being associated with low-density lipoprotein cholesterol (LDL-C). When LDL-C levels are high, cholesterol can build up within the walls of the arteries, causing atherosclerosis, the build-up of plaque. Hemorrhaging or clot formation can occur at the site of plaque build-up, blocking arteries and causing heart attack and stroke. Reducing cholesterol in patients with known heart disease is critically important, as treatment can reduce morbidity (heart attack and stroke) and mortality by as much as 40%. The National Cholesterol Education Program (NCEP) has established guidelines for managing cholesterol levels in patients with heart disease. The guidelines established the need for close monitoring of LDL cholesterol in patients with coronary heart disease and set a target for LDL-C of less than or equal to 100

[227] http://qualitymeasures.ahrq.gov/content.aspx?id=34654

mg/dL for such patients. Cholesterol screening and control depends on the combined efforts of patient, physician and organization. Lifestyle factors and new medications offer tangible means for reducing cholesterol and the risk of heart disease.

IT-1.7 Controlling high blood pressure (NCQA-HEDIS 2012, NQF 0018)[228] *(Standalone measure)*

a Numerator: The number of patients in the denominator whose most recent blood pressure (BP) is adequately controlled (BP less than 140/90 mm Hg)during the measurement year

b Denominator: Patients 18 to 85 years of age as of December 31 of the measurement year with a diagnosis of hypertension

c Data Source: EHR, Registry

d Rationale/Evidence: Approximately 76.4 million (33.5 percent) of people in the United States have high blood pressure. Numerous clinical trials have shown that aggressive treatment of high blood pressure reduces mortality from heart disease, stroke and renal failure; results are particularly striking in elderly hypertensives, which are more likely to have heart failure. A pool of past clinical trials demonstrated that a 5 mm to 6 mm Hg reduction in diastolic blood pressure was associated with a 42 percent reduction in stroke mortality and a 14 percent to 20 percent reduction in mortality from coronary heart disease (CHD). Literature from clinical trials indicates that 53 percent to 75 percent of people under treatment achieved control of their blood pressure. The specifications for this measure are consistent with current guidelines, such as those of the USPSTF and the Joint National Committee.

IT-1.8 Depression management[229] : Screening and Treatment Plan for Clinical Depression (PQR 2011, #134) [230] *(Non- standalone measure)*

(CMS encourages providers to pick both measures for depression management improvement target – IT -1.8 and IT-1.9**)**

a Numerator: Patient's screening for clinical depression using a standardized tool AND follow-up plan is documented.

- Screening – Testing done on people at risk of developing a certain disease, even if they have no symptoms. Screening tests can predict the likelihood of someone having or developing a particular disease. This measure looks for the test being done in the practitioner's office that is filing the code.

- Standardized Tool – An assessment tool that has been appropriately normalized and validated for the population in which it is used. Some depression screening tools include: Patient Health Questionnaire (PHQ9), Beck Depression Inventory (BDI or BDI-II), Center for

[228] http://qualitymeasures.ahrq.gov/content.aspx?id=34655
[229] http://www.cms.gov/medicare-coverage-database/details/nca-decision-memo.aspx?NCAId=251
[230] http://www.aota.org/DocumentVault/Surveys/2011-PQRS/134.aspx?FT=.pdf

Epidemiologic Studies Depression Scale (CES-D), Depression Scale (DEPS), Duke Anxiety-Depression Scale (DADS), Geriatric Depression Scale (GDS), GDS – Short Version, Hopkins Symptom Checklist (HSCL), The Zung Self-Rating Depression Scale (SDS), and Cornell Scale Screening (this is a screening tool which is used in situations where the patient has cognitive impairment and is administered through the caregiver).

- Follow-Up Plan – Proposed outline of treatment to be conducted as a result of clinical depression screen. Such follow-up must include further evaluation if screen is positive and may include documentation of a future appointment, education, additional evaluation and/or referral to a practitioner who is qualified to diagnose and treat depression, and/or notification of primary care provider.
- Not Eligible/Not Appropriate – A patient is not eligible if one or more of the following conditions exist:
    - Patient refuses to participate
    - Patient is in an urgent or emergent situation where time is of the essence and to delay treatment would jeopardize the patient's health status
    - Situations where the patient's motivation to improve may impact the accuracy of results of nationally recognized standardized depression assessment tools. For example: certain court appointed cases
    - Patient was referred with a diagnosis of depression
- Patient has been participating in on-going treatment with screening of clinical depression in a preceding reporting period
- Severe mental and/or physical incapacity where the person is unable to express himself/herself in a manner understood by others. For example: cases such as delirium or severe cognitive impairment, where depression cannot be accurately assessed through use of nationally recognized standardized depression assessment tools

Numerator Quality-Data Coding Options for Reporting Satisfactorily:

Positive Screen for Clinical Depression, Follow-up Plan Documented
G8431: Positive screen for clinical depression using a standardized tool and a follow-up plan documented

OR

Negative Screen for Clinical Depression Documented, Follow-up Plan not Indicated
G8510: Negative screen for clinical depression using standardized tool, patient not eligible/appropriate for follow-up plan documented

OR

Screening for Clinical Depression not Documented, Patient not Eligible/Appropriate
G8433: Screening for clinical depression using a standardized tool not documented, patient not eligible/appropriate

OR

Screening for Clinical Depression not Documented, Reason not Specified

G8432: No documentation of clinical depression screening using a standardized tool
OR
Screening for Clinical Depression Documented, Follow-Up Plan not Documented, Reason not Specified
G8511: Screen for clinical depression using a standardized tool documented, follow-up plan not documented, reason not specified

b Denominator: All patients aged 18 years and older
Denominator Criteria (Eligible Cases):
Patients aged ≥ 18 years on date of encounter
AND
Patient encounter during the reporting period (CPT): 90801, 90802, 90804, 90805,
90806, 90807, 90808, 90809, 92557, 92567, 92568, 92590, 92625, 92626, 96150, 96151, 97003

c Data Source: EHR, Claims

d Rationale/Evidence: Despite the high prevalence and substantial impact of depression, detection and treatment in the primary care setting have been suboptimal. Studies have shown that usual care by primary care physicians fails to recognize 30% to 50% of depressed patients. Because patients in whom depression goes unrecognized cannot be appropriately treated, systematic screening has been advocated as a means of improving detection, treatment, and outcomes of depression. Compared with usual care, screening for depression can improve outcomes, particularly when screening is coupled with system changes that help ensure adequate treatment and follow-up.

IT-1.9 Depression management[231] : Depression Remission at Twelve Months (NQF# 0710)[232] ***(Standalone measure)***

a Numerator: Adults age 18 and older with a diagnosis of major depression or dysthymia and an initial PHQ-9 score greater than nine who achieve remission at twelve months as demonstrated by a twelve month (+/- 30 days) PHQ-9 score of less than five.

b Denominator: Adults age 18 and older with a diagnosis of major depression or dysthymia and an initial PHQ-9 score greater than nine.
- Patients who die, are a permanent resident of a nursing home or are enrolled in hospice are excluded from this measure. Additionally, patients who have a diagnosis (in any position) of bipolar or personality disorder are excluded.

c Data Source: Electronic Clinical Data, Electronic Health Record, Paper Records

d Rationale/Evidence: Adult patients age 18 and older with major depression or dysthymia and an initial PHQ-9 score > 9 who demonstrate remission at twelve

[231] http://www.cms.gov/medicare-coverage-database/details/nca-decision-memo.aspx?NCAId=251
[232] http://www.qualityforum.org/MeasureDetails.aspx?actid=0&SubmissionId=55#k=0710

months defined as a PHQ-9 score less than 5. This measure applies to both patients with newly diagnosed and existing depression whose current PHQ-9 score indicates a need for treatment.
The Patient Health Questionnaire (PHQ-9) tool is a widely accepted, standardized tool that is completed by the patient, ideally at each visit, and utilized by the provider to monitor treatment progress. This measure additionally promotes ongoing contact between the patient and provider as patients who do not have a follow-up PHQ-9 score at twelve months (+/- 30 days) are also included in the denominator.

IT-1.10 Diabetes care: *HbA1c poor control (>9.0%)*[233]*- NQF 0059 (Standalone measure)*

a Numerator: Percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had hemoglobin A1c (HbA1c) control > 9.0%.
b Denominator: Members 18 to 75 years of age as of December 31 of the measurement year with diabetes (type 1 and type 2)
c Data Source: EHR, Registry, Claims, Administrative clinical data
d Rationale/Evidence: Diabetes is one of the most costly and highly prevalent chronic diseases in the United States. Approximately 20.8 million Americans have diabetes, and half these cases are undiagnosed. Complications from the disease cost the country nearly $100 billion annually. In addition, diabetes accounts for nearly 20 percent of all deaths in people over 25 years of age. Many complications, such as amputation, blindness, and kidney failure, can be prevented if detected and addressed in the early stages. Although many people live with diabetes years after diagnosis, it is a costly condition that leads to serious and potentially fatal health complications. Diabetes control can improve the quality of life for millions of Americans and save billions of health care dollars.

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IT-1.11 Diabetes care: *BP control (<140/80mm Hg)*[234] *– NQF* 0061 *(Standalone measure)*

a Numerator: Use automated data to identify the most recent blood pressure (BP) reading during the measurement year. The member is numerator compliant if the BP is less than 140/90 mm Hg.
b Denominator: Members 18 to 75 years of age as of December 31 of the measurement year with diabetes (type 1 and type 2)
c Data Source: EHR, Registry, Claims, Administrative clinical data
d Rationale/Evidence: Diabetes is one of the most costly and highly prevalent chronic diseases in the United States. Approximately 20.8 million Americans have diabetes, and half these cases are undiagnosed. Complications from the disease cost the country nearly $100 billion annually. In addition, diabetes accounts for nearly 20 percent of all deaths in people over 25 years of age. Many complications, such as amputation, blindness, and kidney failure, can be

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[233] http://www.htsrec.com/janda/pdf/2012EP_MeasureSpecifications/NQF%200059/NQF_HQMF_HumanReadable_0059.pdf
[234] http://www.qualitymeasures.ahrq.gov/content.aspx?id=34667

prevented if detected and addressed in the early stages. Although many people live with diabetes years after diagnosis, it is a costly condition that leads to serious and potentially fatal health complications. Diabetes control can improve the quality of life for millions of Americans and save billions of health care dollars.

IT-1.12 Diabetes care: *Retinal eye exam[235]—NQF 0055 (Non- standalone measure)*

a Numerator: An eye screening for diabetic retinal disease as identified by administrative data. This includes diabetics who had one of the following:
- A retinal or dilated eye exam by an eye care professional (optometrist or ophthalmologist) in the measurement year, or
- A negative retinal exam (no evidence of retinopathy) by an eye care professional in the year prior to the measurement year

b Denominator: Members 18 to 75 years of age as of December 31 of the measurement year with diabetes (type 1 and type 2)

c Data Source: EHR, Registry, Claims, Administrative clinical data

d Rationale/Evidence: Diabetes is one of the most costly and highly prevalent chronic diseases in the United States. Approximately 20.8 million Americans have diabetes, and half these cases are undiagnosed. Complications from the disease cost the country nearly $100 billion annually. In addition, diabetes accounts for nearly 20 percent of all deaths in people over 25 years of age. Many complications, such as amputation, blindness, and kidney failure, can be prevented if detected and addressed in the early stages. Although many people live with diabetes years after diagnosis, it is a costly condition that leads to serious and potentially fatal health complications. Diabetes control can improve the quality of life for millions of Americans and save billions of health care dollars.

IT-1.13 Diabetes care *Foot exam- NQF 0056 (Non- standalone measure)*

a Numerator: Percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who received a foot exam (visual inspection, sensory exam with monofilament, or pulse exam) during the measurement year.

b Denominator: Patients 18-75 years of age as of December 31 of the measurement year who had a diagnosis of diabetes (type 1 or type 2).

c Data Source: EHR, Registry, Claims, Administrative clinical data.

d Rationale/Evidence: Diabetes is one of the most costly and highly prevalent chronic diseases in the United States. Approximately 20.8 million Americans have diabetes, and half these cases are undiagnosed. Complications from the disease cost the country nearly $100 billion annually. In addition, diabetes accounts for nearly 20 percent of all deaths in people over 25 years of age. Many complications, such as amputation, blindness, and kidney failure, can be prevented if detected and addressed in the early stages. Although many people live with diabetes years after diagnosis, it is a costly condition that leads to serious and potentially fatal health complications. Diabetes control can improve

[235] http://www.qualitymeasures.ahrq.gov/content.aspx?id=34661

the quality of life for millions of Americans and save billions of health care dollars.

IT-1.14 Diabetes care: *Microalbumin/Nephropathy- NQF 0062 (Non- standalone measure)*

a Numerator: Percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had a nephropathy screening test or evidence of nephropathy.
b Denominator: Patients 18-75 years of age as of December 31 of the measurement year who had a diagnosis of diabetes (type 1 or type 2).
c Data Source: EHR, Registry, Claims, Administrative clinical data.
d Rationale/Evidence: Diabetes is one of the most costly and highly prevalent chronic diseases in the United States. Approximately 20.8 million Americans have diabetes, and half these cases are undiagnosed. Complications from the disease cost the country nearly $100 billion annually. In addition, diabetes accounts for nearly 20 percent of all deaths in people over 25 years of age. Many complications, such as amputation, blindness, and kidney failure, can be prevented if detected and addressed in the early stages. Although many people live with diabetes years after diagnosis, it is a costly condition that leads to serious and potentially fatal health complications. Diabetes control can improve the quality of life for millions of Americans and save billions of health care dollars.

IT-1.15 Peritoneal Dialysis Adequacy Clinical Performance (NQF # 0318) ***(Standalone measure)***

a Numerator: Patients are included in the numerator if delivered peritoneal dialysis was a weekly Kt/V urea of at least 1.7 (dialytic + residual) during the measurement period.
b Denominator: All adult (>= 18 years old) peritoneal dialysis patients who have been on peritoneal dialysis for at least 90 days.
c Data Source: EHR, Claims
d Rationale/Evidence: Evaluation of PD adequacy every four months is critical to ensure timely dose adjustment as needed, and adequate dialysis doses (Kt/V urea > 1.7) have been linked to improved patient outcomes. Therefore, continued implementation of this measure is needed to ensure frequent adequacy measurement and adequate dialysis dosing.

IT-1.16 Hemodialysis Adequacy Clinical Performance (NQF #0249) ***(Standalone measure)***

a Numerator: Number of patients in denominator whose delivered dose of hemodialysis (calculated from the last measurements of the month using the UKM or Daugirdas II formula) was a sp Kt/V >= 1.2.
b Denominator: All adult (>= 18 years old) patients in the sample for analysis who have been on hemodialysis for 90 days or more and dialyzing thrice weekly.
c Data Source: EHR, Claims
d Rationale/Evidence: The dose of dialysis is used to estimate the ability of hemodialysis to clear the blood of accumulated toxins. In the adult population, outcome studies have shown an association between dose of hemodialysis in terms of small solute removal and clinical outcomes.

IT-1.17 Hemodialyis Adequacy for Pediatric Hemodialysis Patients (NQF #1423) ***(Standalone measure)***

a Numerator: Number of patients in the denominator whose delivered dose of hemodialysis (calculated from the last measurements of the month using the UKM or Daugirdas II formula) was a sp Kt/V>=1.2
b Denominator: Number of pediatric (<18 years old) in-center HD patients who have been on hemodialysis for 90 days or more and dialyzing 3 or 4 times weekly.
c Data Source: EHR, Claims
d Rationale/Evidence: In considering target sp Kt/V, the pediatric population should receive at least an sp Kt/V of 1.2, which is the minimum requirement for the adult population in order to allow for the increased nutritional needs of children. Analysis of CPM data further support this cut-off since adolescents with sp Kt/V below 1.2 were found to have significantly increased risk of hospitalization as compared to those with sp Kt/V of 1.2-1.

IT-1.18 Follow-Up After Hospitalization for Mental Illness- NQF 0576[236] *(Standalone measure)*

a. Numerator:
   - Rate 1: An outpatient visit, intensive outpatient encounter or partial hospitalization with a mental health practitioner within 30 days after discharge. Include outpatient visits, intensive outpatient encounters or partial hospitalizations that occur on the date of discharge.
   - Rate 2: An outpatient visit, intensive outpatient encounter or partial hospitalization with a mental health practitioner within 7 days after discharge. Include outpatient visits, intensive outpatient encounters or partial hospitalizations that occur on the date of discharge.
b. Denominator: Members 6 years and older as of the date of discharge who were discharged alive from an acute inpatient setting (including acute care psychiatric facilities) with a principal mental health diagnosis on or between January 1 and December 1 of the measurement year. The denominator for this measure is based on discharges, not members. Include all discharges for members who have more than one discharge on or between January 1 and December 1 of the measurement year.
   Mental health readmission or direct transfer:
   If the discharge is followed by readmission or direct transfer to an acute facility for a mental health principal diagnosis (within the 30-day follow-up period, count only the readmission discharge or the discharge from the facility to which the member was transferred. Although rehospitalization might not be for a selected mental health disorder, it is probably for a related condition.
c. Data Source: EHR, Claims
d. Rationale/Evidence: This measure assesses the percentage of discharges for members 6 years of age and older who were hospitalized for treatment of selected mental health disorders and who had an outpatient visit, an intensive outpatient encounter or partial hospitalization with a mental health practitioner. Two rates are reported.
   Rate 1. The percentage of members who received follow-up within 30 days of

[236] http://www.qualityforum.org/QPS/

discharge
Rate 2. The percentage of members who received follow-up within 7 days of discharge.

IT-1.19 Antidepressant Medication Management - NQF 0105[237] *(Standalone measure)*

a. Numerator: A) Effective Acute Phase Treatment: At least 84 days (12 weeks) of continuous treatment with antidepressant medication during the 114-day period following the IPSD (inclusive). The continuous treatment allows gaps in medication treatment up to a total of 30 days during the 114-day period. Gaps can include either washout period gaps to change medication or treatment gaps to refill the same medication.

   Regardless of the number of gaps, there may be no more than 30 gap days. Count any combination of gaps (e.g., two washout gaps of 15 days each, or two washout gaps of 10 days each and one treatment gap of 10 days).

   B) Effective Continuation Phase Treatment: At least 180 days (6 months) of continuous treatment with antidepressant medication (Table AMM-D) during the 231-day period following the IPSD (inclusive). Continuous treatment allows gaps in medication treatment up to a total of 51 days during the 231-day period. Gaps can include either washout period gaps to change medication or treatment gaps to refill the same medication.

   Regardless of the number of gaps, gap days may total no more than 51. Count any combination of gaps (e.g., two washout gaps, each 25 days or two washout gaps of 10 days each and one treatment gap of 10 days).

b. Denominator: Members 6 years and older as of the date of discharge who were discharged alive from an acute inpatient setting (including acute care psychiatric facilities) with a principal mental health diagnosis on or between January 1 and December 1 of the measurement year. The denominator for this measure is based on discharges, not members. Include all discharges for members who have more than one discharge on or between January 1 and December 1 of the measurement year.

   Mental health readmission or direct transfer:
   If the discharge is followed by readmission or direct transfer to an acute facility for a mental health principal diagnosis (within the 30-day follow-up period, count only the readmission discharge or the discharge from the facility to which the member was transferred. Although rehospitalization might not be for a selected mental health disorder, it is probably for a related condition.

c. Data Source: EHR, Claims

d. Rationale/Evidence: The percentage of members 18 years of age and older who were diagnosed with a new episode of major depression and treated with

[237] http://www.qualityforum.org/QPS/

antidepressant medication, and who remained on an antidepressant medication treatment. Two rates are reported.
a) Effective Acute Phase Treatment. The percentage of newly diagnosed and treated members who remained on an antidepressant medication for at least 84 days (12 weeks).
b) Effective Continuation Phase Treatment. The percentage of newly diagnosed and treated members who remained on an antidepressant medication for at least 180 days (6 months).

IT-1.20 Other Outcome Improvement Target: must be evidence based, appropriate for proposed project, and meet the definition of an outcome measure.

a Numerator: TBD by performing provider
b Denominator: TBD by performing provider
c Data Source: TBD by performing provider
d Rationale/Evidence: Rationale to include citation, evidence base and significance of target towards intervention population or community of need

OD-2- Potentially Preventable Admissions

IT-2.1 Congestive Heart Failure Admission rate (CHF)[238]- PQI #8 *(Standalone measure)*

a Numerator: All non-maternal discharges of age 18 years and older with a principal diagnosis code for CHF.
b Denominator: Population in Metro Area or county, age 18 years and older.
c Data Source: EHR, Claims
d Rationale/Evidence: Please see footnote for specific diagnosis codes to be included as well as criteria for case exclusion.

IT-2.2 End-Stage Renal Disease (ESRD) Admission Rate *(Standalone measure)*

a Numerator: All discharges of age 18 years and older with a principal diagnosis code for end stage renal disease.
b Denominator: Discharges in the numerator are assigned to the denominator based on the Metro Area[1] or county of the patient residence, not the Metro Area or county of the hospital where the discharge occurred.
c Data Source: EHR, Claims
d Rationale/Evidence: Hospitalization rates are an important indicator of patient morbidity and quality of life. On average, dialysis patients are admitted to the hospital twice a year and hospitalizations account for approximately 36 percent of total Medicare expenditures for dialysis patients (U.S. Renal Data System, 2007). Measures of the frequency of hospitalization help efforts to control escalating medical costs, and play an important role in providing cost effective health care.

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[238] http://www.qualityindicators.ahrq.gov/Downloads/Modules/PQI/V41/TechSpecs/PQI%2008%20CHF%20Admission%20Rate.pdf

IT-2.3 Hypertension Admission Rate (HTN)[239]- PQI #7 *(Standalone measure)*

a Numerator: All discharges of age 18 years and older with a principal diagnosis code for hypertension.

b Denominator: Discharges in the numerator are assigned to the denominator based on the Metro Area[1] or county of the patient residence, not the Metro Area or county of the hospital where the discharge occurred.

c Data Source: EHR, Claims

d Rationale/Evidence: Please see footnote for specific diagnosis codes to be included as well as criteria for case exclusion.

IT-2.4 Behavioral Health/Substance Abuse (BH/SA) Admission Rate *(Standalone measure)*

Performing provider should report on both categories below:

1. One for BH/SA as the principal diagnosis;
   a. Numerator: All discharges for patients aged 18 years and older with a principle or secondary diagnosis of behavioral health or substance abuse.
   b. Denominator: Number of residents age 18 and older living in the RHP counties

2. A second category in which a significant BH/SA secondary diagnosis is present (e.g. admission for an accident or diabetes with a secondary diagnosis of psychosis.
   a. Numerator: All discharges for patients aged 18 years and older with a principle or secondary diagnosis of behavioral health or substance abuse.
   b. Denominator: Number of residents age 18 and older living in the RHP counties
   c. Data source: EHR, Claims
   d. Rationale/Evidence: There is ample evidence indicating that adequate outpatient services decrease hospital use for behavioral health and substance abuse disorders[240]. Diagnoses of behavioral health/substance abuse are included in among the PPAs list as very often these patients are only admitted once to respective facilities

IT-2.5 Chronic Obstructive Pulmonary Disease (COPD) Admission Rate- [241]PQI 5 *(Standalone measure)*

a Numerator: All non-maternal discharges of age 18 years and older with a principal diagnosis code for COPD.

b Denominator: Population in Metro Area or county, age 18 years and older.

c Data Source: EHR, Claims

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[239]http://www.qualityindicators.ahrq.gov/Downloads/Modules/PQI/V43/TechSpecs/PQI%2007%20Hypertension%20Admission%20Rate.pdf

[240] S dosReis, E Johnson, D Steinwachs, C Rohde, EA Skinner, M Fahey, AF Lehman; Antipsychotic treatment patterns and hospitalizations among adults with schizophrenia. *Schizophrenia Research*, 2008, Volume 101, Issue 1, Pages 304-311

[241]http://www.qualityindicators.ahrq.gov/Downloads/Modules/PQI/V41/TechSpecs/PQI%2005%20Chronic%20Obstructive%20Pulmonary%20Disease%20(COPD)%20Admission%20Rate.pdf

d Rationale/Evidence: Please see footnote for specific diagnosis codes to be included as well as criteria for case exclusion.

IT-2.6 Adult Asthma Admission Rate[242]- PQI 15 *(Standalone measure)*

a Numerator: All discharges of age 18 years and older with a principal diagnosis code of asthma.
b Denominator: Population in Metro Area or county, age 18 years and older.
c Data Source: EHR, Claims
d Rationale/Evidence: Please see footnote for specific diagnosis codes to be included as well as criteria for case exclusion.

IT-2.7 Diabetes Short Term Complication Admission Rate- PQI 1[243] *(Standalone measure)*

a Numerator: All non-maternal/non-neonatal discharges of age 18 years and older with a principal diagnosis code for short-term complications (ketoacidosis, hyperosmolarity, coma)
b Denominator: Population in Metro Area or county, age 18 years and older.
c Data Source: EHR, Claims
d Rationale/Evidence: Please see footnote for specific diagnosis codes to be included as well as criteria for case exclusion.

IT-2.8 Diabetes Long Term Complications Admission Rate- PQI 3[244] *(Standalone measure)*

a Numerator: Discharges age 18 years and older with a principal diagnosis code for long-term complications (renal, eye, neurological, circulatory, or complications not otherwise specified).
b Denominator: Population in Metro Area or county, age 18 years and older.
c Data Source: EHR, Claims
d Rationale/Evidence: Please see footnote for specific diagnosis codes to be included as well as criteria for case exclusion.

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[242] http://www.qualityindicators.ahrq.gov/Downloads/Modules/PQI/V42/TechSpecs/PQI%2015%20Adult%20Asthma%20Admission%20Rate.pdf

[243] http://www.qualityindicators.ahrq.gov/Downloads/Modules/PQI/V41/TechSpecs/PQI%2001%20Diabetes%20Short-term%20Complications.pdf

[244] http://www.qualityindicators.ahrq.gov/Downloads/Modules/PQI/V41/TechSpecs/PQI%2003%20Diabetes%20Long-term%20Complications%20Admission%20Rate.pdf

IT-2.9 Uncontrolled Diabetes Admissions Rate- PQI 14245 ***(Standalone measure)***

a Numerator: All non-maternal discharges of age 18 years and older with a principal diagnosis code for uncontrolled diabetes, without mention of a short-term or long-term complication.

b Denominator: Population in Metro Area or county, age 18 years and older.

c Data Source: EHR, Claims

d Rationale/Evidence: Please see footnote for specific diagnosis codes to be included as well as criteria for case exclusion. Population in Metro Area or county, age 18 years and older. May be combined with diabetes short-term complications as a single indicator as a simple sum of the rates to form the Health People 2010 indicator (note that the AHRQ QI excludes transfers to avoid double counting cases).

IT-2.10 Flu and pneumonia Admission Rate ***(Standalone measure)***

a Numerator: All discharges of age 18 years and older with a principal diagnosis code of flu or pneumonia.

b Denominator: Population in Metro Area or county, age 18 years and older.

c Data Source: EHR, Claims

d Rationale/Evidence: Hospitalizations for the Bacterial Pneumonia are considered "potentially preventable," because if the individual had access to and cooperated with appropriate outpatient healthcare, the hospitalization would likely not have occurred. The methodology used to identify "potentially preventable hospitalizations" was developed by the Agency for Healthcare Research and Quality (AHRQ). AHRQ is the lead federal agency responsible for research on healthcare quality costs, outcomes and patient safety.

IT-2.11 Ambulatory Care Sensitive Conditions Admissions Rate[246]: ***(Standalone measure)***

a Numerator: Total number of acute care hospitalizations for ambulatory care sensitive conditions under age 75 years (see the related "Numerator Inclusions/Exclusions")

- Inclusions
  - Total number of acute care hospitalizations for ambulatory care sensitive conditions* under age 75

  *Based on a list of conditions developed by Billings et al., any one most responsible diagnosis code of: Grand mal status and other epileptic convulsions Chronic obstructive pulmonary diseases Asthma Heart failure and pulmonary edema Hypertension Angina Diabetes

  Note: Refer to the Technical Note: Ambulatory Care Sensitive Conditions (ASCS) document listed in the "Companion Documents" field for codes used.

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[245]http://www.qualityindicators.ahrq.gov/Downloads/Modules/PQI/V41/TechSpecs/PQI%2014%20Uncontrolled%20Diabetes%20Admission%20Rate.pdf

[246] http://www.qualitymeasures.ahrq.gov/content.aspx?id=27275

- Exclusions
  - Individuals 75 years of age and older
  - Death before discharge

b Denominator: Total mid-year population under age 75

c Data Source: EHR, Claims

d Rationale/Evidence: Hospitalization for an ambulatory care sensitive condition (ACSC) is considered to be a measure of access to appropriate primary health care. While not all admissions for these conditions are avoidable, it is assumed that appropriate ambulatory care could prevent the onset of this type of illness or condition, control an acute episodic illness or condition, or manage a chronic disease or condition. A disproportionately high rate is presumed to reflect problems in obtaining access to appropriate primary care.

IT-2.12 Prevention Quality Indicators (PQI) Composite Measures Potentially Preventable Hospitalizations for Ambulatory Care Sensitive Conditions[247] *(Standalone measure)*

Overall Composite – PQI 90

PQI #01 Diabetes Short-Term Complications Admission Rate	PQI #11 Bacterial Pneumonia Admission Rate
PQI #03 Diabetes Long-Term Complications Admission Rate	PQI #12 Urinary Tract Infection Admission Rate
PQI #05 Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate	PQI #13 Angina without Procedure Admission Rate
PQI #07 Hypertension Admission Rate	PQI #14 Uncontrolled Diabetes Admission Rate
PQI #08 Heart Failure Admission Rate	PQI #15 Asthma in Younger Adults Admission Rate
PQI #10 Dehydration Admission Rate	PQI #16 Rate of Lower-Extremity Amputation Among Patients With Diabetes

Acute Composite- PQI 91

PQI #10 Dehydration Admission Rate	PQI #12 Urinary Tract Infection Admission Rate
PQI #11 Bacterial Pneumonia Admission Rate	

Chronic Composite- PQI 92

PQI #01 Diabetes Short-Term Complications Admission Rate	PQI #13 Angina without Procedure Admission Rate
PQI #03 Diabetes Long-Term Complications Admission Rate	PQI #14 Uncontrolled Diabetes Admission Rate
PQI #05 Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate	PQI #15 Asthma in Younger Adults Admission Rate

[247] http://www.qualityindicators.ahrq.gov/Downloads/Modules/PQI/V44/Composite_User_Technical_Specification_PQI%20V4.4.pdf

PQI #07 Hypertension Admission Rate

PQI #16 Rate of Lower-Extremity Amputation Among Patients With Diabetes

PQI #08 Congestive Heart Failure (CHF) Admission Rate

a Numerator: Composites are constructed by summing the hospitalizations across the component conditions and dividing by the population. Rates can optionally be adjusted for age, sex and socio-economic status when comparing across regions or demographic groups.

b Data Source: EHR, Claims

c Rationale/Evidence: An overall composite captures the general concept of potentially avoidable hospitalization connecting the individual PQI measures, which are all rates at the area level. Separate composite measures were created for acute and chronic conditions to investigate different factors influencing hospitalization rates for each condition. The PQI composites are intended to be used to provide national estimates that can be tracked over time and to provide state and county level estimates that can be compared with the national estimate and to each other.

As anticipated, areas with higher rates of diabetes and hypertension show higher hospitalizations, particularly in the chronic composite. However, for asthma the contrary relation is true suggesting other confounding factors. Notably in V4.3, the diabetic population serves as the denominator for PQI #01, PQI #03 and PQI #14.

Areas with low levels of poverty also show lower hospitalization rates for each of the PQI composites, which is independent of access to care.

The PQI composites provide the following advantages:

- Provide assessment of quality and disparity
- Provide baselines to track progress
- Identify information gaps
- Emphasize interdependence of quality and disparities
- Promote awareness and change

IT-2.13 Other Admissions Rate [*To be selected by provider*] *(Standalone measure)*

a Numerator: TBD by performing provider

b Denominator: TBD by performing provider

c Data Source: EHR, Claims

d Rationale/Evidence: Rationale to include citation and significance of target towards intervention population or community of need.

OD-3 Potentially Preventable Re-Admissions- 30 day Readmission Rates (PPRs)

The relationship between hospital readmission rates and quality of care is well-documented, and is driven by a general consensus that readmissions may result from circumstances surrounding the initial hospital stay.[248] Given data limitations, only readmissions to the same facility will be included as part of each hospital's rates.

Readmission rates are calculated for the following individual medical conditions: Congestive heart failure, diabetes, chronic obstructive pulmonary disease, stroke, and asthma. For all individual conditions, admissions for patients that meet any of the following criteria are excluded. These exclusions were originally listed as part of the Heart Failure readmission metric,[249] obtained from the National Quality Forum, and are applied to all other individual-condition metrics for consistency.

- With an in-hospital death (because they are not eligible for readmission);
- Without at least 30 days post-discharge enrollment in Medicare FFS (because the 30-day readmission outcome cannot be assessed in this group;
- Transferred to another acute care facility (When a patient is transferred from one acute care hospital to another, these multiple, contiguous hospitalizations are considered one episode of care. Readmissions for transferred patients are attributed to the hospital that ultimately discharges the patient to a non-acute setting);
- Discharged against medical advice (AMA) (because providers did not have the opportunity to deliver full care and prepare the patient for discharge);
- Admitted with heart failure within 30 days of discharge from an index admission (Admissions within 30 days of discharge of an index admission will be considered readmissions. No admission is counted as a readmission and an index admission. The next eligible admission after the 30-day time period following an index admission will be considered an index admission.)

IT-3.1 All cause 30 day readmission rate- NQF 1789[250] *(Standalone measure)*

a Numerator: The outcome for this measure is unplanned all-cause 30-day readmission. Readmission is defined as an inpatient admission to any acute care facility which occurs within 30 days of the discharge date of an eligible index admission. All readmissions are counted as outcomes except those that are considered planned.

b Denominator: This claims-based measure can be used in either of two patient cohorts: (1) admissions to acute care facilities for patients aged 65 years or older or (2) admissions to acute care facilities for patients aged 18 years or older. We have tested the measure in both age groups.

- Please see footnote for specific diagnosis codes to be included as well as criteria for case exclusion.

c Data Source: EHR, Claims

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[248] Goldfield N, McCullough E, Hughes, Tang A, Eastman B, Rawlins L, Averill R. 2008. "Identifying Potentially Preventable Readmissions." *Health Care Financing Review*. 30:1; pp75-91.

[249] Quality Positioning System (QPS) Measure Description Display Information: Heart Failure. http://www.qualityforum.org/QPS/. Accessed June 5, 2012.

[250] http://www.qualityforum.org/QPS/

d Rationale/Evidence: This measure estimates the hospital-level, risk-standardized rate of unplanned, all-cause readmission after admission for any eligible condition within 30 days of hospital discharge (RSRR) for patients aged 18 and older. The measure reports a single summary RSRR, derived from the volume-weighted results of five different models, one for each of the following specialty cohorts (groups of discharge condition categories or procedure categories): surgery/gynecology, general medicine, cardio-respiratory, cardiovascular, and neurology, each of which will be described in greater detail below. The measure also indicates the hospital standardized risk ratios (SRR) for each of these five specialty cohorts. The measure was developed for patients 65 years and older using Medicare fee-for-service (FFS) claims and subsequently tested and specified the measure for patients aged 18 years and older using all-payer data. The following was used: the California Patient Discharge Data (CPDD), a large database of patient hospital admissions, for our all-payer data.

IT-3.2 Congestive Heart Failure 30 day readmission rate *(Standalone measure)*

a Numerator: The number of readmissions (for patients 18 years and older), for any cause, within 30 days of discharge from the index HF admission. If an index admission has more than 1 readmission, only first is counted as a readmission.

b Denominator: The number of admissions (for patients 18 years and older), for patients discharged from the hospital with a principal diagnosis of HF and with a complete claims history for the 12 months prior to admission.

IT-3.3 Diabetes 30 day readmission rate *(Standalone measure)*

a Numerator: The number of readmissions (for patients 18 years and older), for any cause, within 30 days of discharge from the index diabetes admission. If an index admission has more than 1 readmission, only first is counted as a readmission.

b Denominator: The number of admissions (for patients 18 years and older), for patients discharged from the hospital with a principal diagnosis of diabetes and with a complete claims history for the 12 months prior to admission.

IT-3.4 Renal Disease 30 day readmission rate *(Standalone measure)*

a Numerator: The number of readmissions (for patients 18 years and older), for any cause, within 30 days of discharge from the index renal disease admission. If an index admission has more than 1 readmission, only first is counted as a readmission.

b Denominator: The number of admissions (for patients 18 years and older), for patients discharged from the hospital with a principal diagnosis of renal disease and with a complete claims history for the 12 months prior to admission.

IT-3.5 Acute Myocardial Infarction (AMI) 30 day readmission rate *(Standalone measure)*

a Numerator: The number of readmissions (for patients 18 years and older), for any cause, within 30 days of discharge from the index AMI admission. If an index admission has more than 1 readmission, only first is counted as a readmission.

b Denominator: The number of admissions (for patients 18 years and older), for patients discharged from the hospital with a principal diagnosis of AMI and with a complete claims history for the 12 months prior to admission.

IT-3.6 Coronary Artery Disease (CAD) 30 day readmission rate *(Standalone measure)*

a Numerator: The number of readmissions (for patients 18 years and older), for any cause, within 30 days of discharge from the index CAD admission. If an index admission has more than 1 readmission, only first is counted as a readmission.

b Denominator: The number of admissions (for patients 18 years and older), for patients discharged from the hospital with a principal diagnosis of CAD and with a complete claims history for the 12 months prior to admission.

IT-3.7 Stroke (CVA) 30 day readmission rate *(Standalone measure)*

a Numerator: The number of readmissions (for patients 18 years and older), for any cause, within 30 days of discharge from the index CVA admission. If an index admission has more than 1 readmission, only first is counted as a readmission.

b Denominator: The number of admissions (for patients 18 years and older), for patients discharged from the hospital with a principal diagnosis of CVA and with a complete claims history for the 12 months prior to admission

IT-3.8 Behavioral Health /Substance Abuse 30 day readmission rate *(Standalone measure)*

a Numerator: The number of readmissions, for patients 18 years and older, for any cause, within 30 days of discharge from the index behavioral health and substance abuse admission is indicated as either the primary or secondary diagnosis. If an index admission has more than 1 readmission, only the first is counted as a readmission.

b Denominator: The number of admissions, for patients 18 years and older, for patients discharged from the hospital with a principal or secondary diagnosis of behavioral health and substance abuse and with a complete claims history for the 12 months prior to admission

IT-3.9 Chronic Obstructive Pulmonary Disease 30 day readmission rate *(Standalone measure)*

a Numerator: The number of readmissions (for patients 18 years and older), for any cause, within 30 days of discharge from the index COPD admission. If an index admission has more than 1 readmission, only first is counted as a readmission.

a Denominator: The number of admissions (for patients 18 years and older), for patients discharged from the hospital with a principal diagnosis of COPD and with a complete claims history for the 12 months prior to admission.

IT-3.10 Adult Asthma 30 day readmission rate *(Standalone measure)*

a Numerator: The number of readmissions (for patients 18 years and older), for any cause, within 30 days of discharge from the index asthma admission. If an index admission has more than 1 readmission, only first is counted as a readmission.
b Denominator: The number of admissions (for patients 18 years and older), for patients discharged from the hospital with a principal diagnosis of asthma and with a complete claims history for the 12 months prior to admission.

IT-3.11 Pediatric Asthma 30-Day Readmission Rate *(Standalone measure)*

a Numerator: The number of readmissions (for patients ages 5-18), for any cause, within 30 days of discharge from the index asthma admission. If an index admission has more than 1 readmission, only first is counted as a readmission.
b Denominator: The number of admissions (for patients ages 5-18), for patients discharged from the hospital with a principal diagnosis of asthma, and with a complete claims history for the 12 months prior to admission

IT-3.12 Other - readmission rate [*To be selected by provider*] ***(Standalone measure)***

a Numerator: The number of readmissions (for patients 18 years and older), for any cause, from the index admission. If an index admission has more than 1 readmission, only first is counted as a readmission.
c Denominator: The number of admissions (for patients 18 years and older), for patients discharged from the hospital with a principal diagnosis of [TBD by provider] and with a complete claims history for the 12 months prior to admission.

OD-4 Potentially Preventable Complications and Healthcare Acquired Conditions

IT-4.1 Improvement in risk adjusted Potentially Preventable Complications rate(s) *(Standalone measure)*

a Numerator: Percent change in risk adjusted PPC rate for targeted conditions Select 5 from the list of 10 highest volume complications or the list of complications with rates higher than the state rate. Report on percent improvement in the selected 5 measures.
b Data Source: TX PPC report, EHR, Claims
c Rationale/Evidence: Each RHP will be responsible for determining appropriate proxy measures for the 5 selected PPCs to allow the RHP to monitor improvement in real time.

IT-4.2 Central line-associated bloodstream infections (CLABSI) rates *(Standalone measure)*

a Numerator: Number of cases of CLABSI as designated by IQR criteria[251]

b Data Source: EHR, Claims, IQR/NHSN data

c Rationale/Evidence: An estimated 41,000 central line-associated bloodstream infections (CLABSI) occur in U.S. hospitals each year. These infections are usually serious infections typically causing a prolongation of hospital stay and increased cost and risk of mortality. CLABSI can be prevented through proper management of the central line. These techniques are addressed in the CDC's Healthcare Infection Control Practices Advisory Committee (CDC/HIPAC) *Guidelines for the Prevention of Intravascular Catheter-Related Infections, 2011*.

IT-4.3 Catheter-associated Urinary Tract Infections (CAUTI) rates *(Standalone measure)*

a Numerator: Number of cases of CAUTI as designated by IQR criteria[252]

b Data Source: EHR, Claims, IQR/NHSN data

a Rationale/Evidence: The urinary tract is the most common site of healthcare-associated infection, accounting for more than 30% of infections reported by acute care hospitals1. Virtually all healthcare-associated urinary tract infections (UTIs) are caused by instrumentation of the urinary tract. CAUTI can lead to such complications as cystitis, pyelonephritis, gram-negative bacteremia, prostatitis, epididymitis, and orchitis in males and, less commonly, endocarditis, vertebral osteomyelitis, septic arthritis, endophthalmitis, and meningitis in all patients. Complications associated with CAUTI cause discomfort to the patient, prolonged hospital stay, and increased cost and mortality. Each year, more than 13,000 deaths are associated with UTIs. Prevention of CAUTIs is discussed in the CDC/HICPAC document, *Guideline for Prevention of Catheter-associated Urinary Tract Infections.*

IT-4.4 Surgical site infections (SSI) rates[253] *(Standalone measure)*

a Numerator: Number of cases of SSI as designated by IQR criteria[254]

b Data Source: EHR, Claims, IQR/NHSN data

a Rationale/Evidence: While advances have been made in infection control practices, including improved operating room ventilation, sterilization methods, barriers, surgical technique, and availability of antimicrobial prophylaxis, SSIs remain a substantial cause of morbidity and mortality among hospitalized patients. In one study, among nearly 100,000 HAIs reported in one year, deaths were associated with SSIs in more than 8,000 cases. Surveillance of SSI with feedback of appropriate data to surgeons has been shown to be an

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[251] http://www.cdc.gov/nhsn/PDFs/pscManual/4PSC_CLABScurrent.pdf

[252] http://www.cdc.gov/nhsn/PDFs/pscManual/7pscCAUTIcurrent.pdf

[253] All reported and collected through CDCs NHSN site with participation in IQR. http://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier2&cid=1228760487021

[254] http://www.cdc.gov/nhsn/PDFs/pscManual/9pscSSIcurrent.pdf?agree=yes&next=Accept

important component of strategies to reduce SSI risk. A successful surveillance program includes the use of epidemiologically-sound infection definitions and effective surveillance methods, stratification of SSI rates according to risk factors associated with SSI development, and data feedback.5,6 Recommendations are outlined in the CDC's *Guideline for Prevention of Surgical Site Infection*, *1999*.

IT-4.5 Patient Fall Rate- NQF 0141[255] *(Standalone measure)*

a Numerator: Total number of patient falls (with or without injury to the patient and whether or not assisted by a staff member) during the reporting period.

- Fall Definition: A patient fall is an unplanned descent to the floor (or extension of the floor, e.g., trash can or other equipment) with or without injury to the patient, and occurs on an eligible reporting nursing unit. All types of falls are to be included whether they result from physiological reasons (fainting) or environmental reasons (slippery floor). Include assisted falls – when a staff member attempts to minimize the impact of the fall.

- **Included Populations**:
  Patient falls occurring while on an eligible reporting unit
  Assisted falls
  Repeat falls

- **Excluded Populations**:
  Falls by:
  Visitors
  Students
  Staff members

- Data Elements: Collected at a patient level
  - Month
  - Year
  - Age
  - Gender
  - Event Type (fall, assisted fall, repeat fall)
  - Type of Unit
  - Fall Risk Assessment
  - Fall Risk
  - Fall Prevention Protocol

[255] http://www.qualityforum.org/MeasureDetails.aspx?actid=0&SubmissionId=1118#k=0141

b Denominator: Patient days by hospital during the reporting period.

Included Populations:
Inpatients, short stay patients, observation patients and same day surgery patients who receive care on eligible in-patient units for all or part of a day. Adult critical care, step-down, medical, surgical, medical-surgical combined units.
Any age patient on an eligible reporting unit is included in the patient day count.

c Data Source: EHR, Claims, Administrative records

d Rationale/Evidence: 256 Four (4) Patient Days reporting methods are recognized:

•Method 1-Midnight Census
This is adequate for units that have all in-patient admissions. It is the least accurate method for units that have both in-patient and short stay patients. The daily number should be summed for every day in the month.

•Method 2-Midnight Census + Patient Days from Actual Hours for Short Stay Patients
This is an accurate method for units that have both in-patients and short stay patients. The short stay "days" should be reported separately from midnight census and will be summed to obtain patient days. The total daily hours for short stay patients should be summed for the month and divided by 24.

•Method 3-from Average Hours for Short Stay Patients
This method has been eliminated from the list of acceptable reporting methods.

•Method 4-Patient Days from Actual Hours
This is the most accurate method. An increasing number of facilities have accounting systems that track the actual time spent in the facility by each patient. Sum actual hours for all patients, whether in-patient or short stay, and divide by 24.

•Method 5-Patient Days from Multiple Census Reports
Some facilities collect censuses multiple times per day (e.g., every 4 hours or each shift). This method is more accurate than the Midnight Census, but not as accurate as Midnight Census + Actual Short Stay hours, or as Actual Patient Hours. A sum of the daily average censuses can be calculated to determine patient days for the month on the unit.

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[256] http://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier3&cid=1228759479767

For all patient day reporting methods, it is recommended that hospitals consistently use the same method for a reporting unit over time. However, units with short stay patients should transition either to Method 2 or Method 4 when it becomes feasible.

IT-4.6 Hospital-acquired Venous Thrombembolism (VTE) [257] ***(Standalone measure)***

a Numerator: Incidence of hospital-acquired VTE, defined as a clot first discovered during the course of hospitalization, or discovered within 30 days of a prior hospitalization.

b Data Source: EHR, Claims: Methods for Defining Hospital-Acquired VTE

- Method 1 (Minimum)
  Track total # DVT and PE diagnosis codes in your medical center. Then divide by 2 to estimate the fraction that is hospital-acquired. The literature suggests that
  approximately half of all cases of DVT and PE diagnosed in the hospital are hospital-acquired.
- Method 2(Better)
  Method 1, then pull charts post-discharge and retrospectively determine if hospital or community acquired.
- Method 3 (Better yet)
  Method 2, then retrospectively determine if hospital-acquired VTE were on appropriate prophylaxis when VTE developed.
- Method 4(Best)
  Prospectively capture new cases of DVT or PE as they occur by setting up reporting system with radiology departments.

* Alternately, use all VTE codes listed as a secondary diagnosis as a surrogate for hospital-acquired VTE.

c Rationale/Evidence: The chances to reduce the likelihood of hospital-acquired VTE begin the moment the patient is admitted. To help the institution team focus its time on the most high yield interventions, it is extremely helpful to identify the most frequent sources of missed chances to prevent HA-VTE. In order to avoid the missed chances an institution has to know the prevalence of appropriate prophylaxis for VTE and the incidence of hospital-acquired VTE.

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[257] http://www.hospitalmedicine.org/AM/Template.cfm?Section=Search_Advanced_Search&Template=/CM/ContentDisplay.cfm&ContentID=6092

IT-4.7 Hospital-acquired Deep pressure ulcers[258] - *(Standalone measure)*

a Numerator: Number of occurrences of the following diagnosis codes as a secondary diagnosis (diagnoses 2-9 on a claim) with a POA code of 'N' or 'U':
- 707.23
- 707.24

b Denominator: Number of acute inpatient FFS discharges during time period.

c Data Source: EHR, Claims

d Rationale/Evidence: Section 5001(c) of Deficit Reduction Act of 2005 requires the Secretary of the Department of Health and Human Services (DHHS) to identify hospital-acquired conditions (HACs) that:
1. are high cost or high volume or both
2. result in the assignment of a case to a diagnosis-related group (DRG) that has a higher payment when present as a secondary diagnosis
3. could reasonably have been prevented through the application of evidence-based guidelines

On July 31, 2008, in the Inpatient Prospective Payment System (IPPS) Fiscal Year (FY) 2009 Final Rule, the Centers for Medicare & Medicaid Services (CMS) selected 10 categories of conditions for a HAC payment provision. For discharges occurring on or after October 1, 2008, hospitals no longer receive additional payment for cases in which one of the selected conditions was not present on admission. That is, the case would be paid as though the secondary diagnosis were not present.

As announced in the IPPS FY 2012 Final Rule, CMS will use eight of these 10 HACs for the Hospital Inpatient Quality Reporting (IQR) Program. CMS first posted hospital-specific data on these eight HAC measures on *Hospital Compare* in October 2011 and plans to update this data on *Hospital Compare* in July 2012. Only hospitals participating in the IQR Program and paid under the IPPS will have results for the HAC measures on *Hospital Compare* because the HAC measures rely on Present on Admission (POA) coding, which is only required of IPPS hospitals.

IT-4.8 Sepsis mortality *(Standalone measure)*

a. Numerator: Number of patients expiring during current month hospitalization with sepsis, severe sepsis or septic shock and/or an infection and organ dysfunction.

b. Denominator: Number of patients identified that month with sepsis, severe sepsis or septic shock and/or an infection and organ dysfunction.

c. Data Source: Performing Provider data

d. Rationale/Evidence: [259]Mortality rates from severe sepsis are on a similar scale to lung, breast, and colon cancer, and it is one of the leading causes of death in the intensive care unit (ICU) (1-3).

Due to its aggressive, multifactorial nature, sepsis is a rapid killer. Death

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[258]http://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier4&cid=1228759483171

[259] http://www.survivingsepsis.org/About_the_Campaign/Pages/AbouttheCampaign.aspx

is common among sepsis patients, with around 30% of patients dying within the first month of diagnosis and 50% dying within 6 months (4-6). The 28-day mortality rate in sepsis patients is comparable to the 1960s hospital mortality rate for patients of acute myocardial infarction (AMI) (7). Over recent years, there has been an improvement in the awareness and management of AMI, resulting in a decline in mortality, while sepsis remains an unacknowledged killer (7).
Moreover, the number of severe sepsis cases is set to grow at a rate of 1.5% per annum, adding an additional 1 million cases per year in the USA alone by 2020 (8). This will increase total mortality and increase the burden on healthcare resources. The increase is mainly due to the growing use of invasive procedures and increasing numbers of elderly and high-risk individuals, such as cancer and HIV patients. Older people are at an increased risk of sepsis as they are more vulnerable to infections due to aging, co-morbidities, use of invasive surgical techniques, and problems associated with institutionalization.

IT-4.9 Average length of stay *(Non-standalone measure)*

a. Numerator: Total number of inpatient days for patients diagnosed with severe sepsis, septic shock, and/or lactate>4mmol/L (36mg/dl).
b. Denominator: Total number of patients diagnosed with severe sepsis, septic shock, and/or lactate>4mmol/L (36mg/dl).
c. Data Source: Performing Provider data
d. Rationale/Evidence: [260]Those hospitalized for septicemia or sepsis had an average length of stay that was 75% longer than those hospitalized for other conditions. Those under age 65 hospitalized for septicemia or sepsis had an average length of stay that was more than double that of other hospitalizations. Those aged 65 and over hospitalized for septicemia or sepsis had an average length of stay that was 43% higher than that of other patients. In-hospital deaths were more than eight times as likely among patients hospitalized for septicemia or sepsis (17%) compared with other diagnoses (2%). In addition, those hospitalized for septicemia or sepsis were one-half as likely to be discharged home, twice as likely to be transferred to another short-term care facility, and three times as likely to be discharged to long-term care institutions, as those with other diagnoses

[260] http://www.cdc.gov/nchs/data/databriefs/db62.pdf

IT-4.10 Other Outcome Improvement Target: must be evidence based, appropriate for proposed project, and meet the definition of an outcome measure.

a Numerator: TBD by performing provider
b Denominator: TBD by performing provider
c Data Source: TBD by performing provider
d Rationale/Evidence: Rationale to include citation, evidence base and significance of target towards intervention population or community of need.

OD-5 Cost of Care

IT-5.1 Improved cost savings: Demonstrate cost savings in care delivery (*Standalone measure for Project 2.5 only. For all other projects –Non- standalone measure)*

a. Type of analysis to be determine by provider from the following list: Cost of Illness Analysis, Cost Minimization Analysis, Cost Effectiveness Analysis (CEA), Cost Consequence Analysis, Cost Utility Analysis, Cost Benefit Analysis
b. Data source: TBD by provider as appropriate for analysis type
c. Rationale/Evidence: TBD by provider

IT-5.2 Per episode cost of care[261] *(Standalone measure for Project 2.5 only. For all other projects- Non- standalone measure)*

Per episode cost of care measurement quantifies the services involved in the diagnosis, management and treatment of specific clinical conditions. Episode-of-care measures can be developed for the full range of acute and chronic conditions, including diabetes, congestive heart failure, acute myocardial infarction, asthma, low back pain and many others.

a. Numerator: total cost for episode of care
b. Denominator: total number of episodes in one month/year [The monthly reporting is more adequate at institution level, while the annual reporting is more suited at individual physician level]
c. Data source: EHR; provider and regional data;
d. Rationale/Evidence: As health care costs rise – regulators, policymakers and industry leaders are increasingly interested in developing accurate ways to measure and, ultimately to try to reduce health care costs for individuals, as well as society. Developing cost-of-care measures that can help those who get, give and pay for care understand how different providers use resources and compare them to national benchmarks was one of the TX HHSC DSRIP project's goals.

Relative resource use or costs will require 1 year of enrollment with no more than a 30 day gap in coverage.

[261] http://www.healthqualityalliance.org/userfiles/COC%20draft%20080410.pdf

IT-5.3 Other Outcome Improvement Target: must be evidence based, appropriate for proposed project, and meet the definition of an outcome measure.

a Numerator: TBD by performing provider
b Denominator: TBD by performing provider
c Data Source: TBD by performing provider
d Rationale/Evidence: TBD

OD-6 Patient Satisfaction

IT-6.1 Percent improvement over baseline of patient satisfaction scores (*all questions within a survey need to be answered to be a standalone measure)*

Percent improvement over baseline of patient satisfaction scores for one or more of the patient satisfaction domains that the provider targets for improvement in a specific tool. Certain supplemental modules for the adult CG-CAHPS survey may be used to establish if patients:
(1) are getting timely care, appointments, and information; ***(Standalone measure)***
(2) how well their doctors communicate; ***(Standalone measure)***
(3) patient's rating of doctor access to specialist; ***(Standalone measure)***
(4) patient's involvement in shared decision making, and ***(Standalone measure)***
(5) patient's overall health status/functional status. ***(Standalone measure)***

a Numerator: Percent improvement in targeted patient satisfaction domain
b Data Source: Patient survey
c Denominator: Number of patients who were administered the survey
d Rationale/Evidence: The intent of the HCAHPS initiative is to provide a standardized survey instrument and data collection methodology for measuring patients' perspectives on hospital care. The surveys are designed to produce comparable data on the patient's perspective on care that allows objective and meaningful comparisons between institutions on domains that are important to consumers. Public reporting of the survey results is designed to create incentives for institutions to improve their quality of care. Public reporting will serve to enhance public accountability in health care by increasing the transparency of the quality of institutional care provided in return for the public investment.

IT-6.2 Other Outcome Improvement Target: must be evidence based, appropriate for proposed project, and meet the definition of an outcome measure.

a Numerator: TBD by performing provider
b Denominator: TBD by performing provider
c Data Source: TBD by performing provider
d Rationale/Evidence: Rationale to include citation, evidence base and significance of target towards intervention population or community of need

OD-7 Oral Health

IT-7.1 Dental Sealant: Percentage of children age 6-9 with a dental sealant on a permanent first molar tooth (Healthy People 2020; CMS Oral Health Initiative goal *(Non-standalone measure)*

a Numerator: Number of children age 6-9 with a dental sealant on at least one permanent first molar within the measurement period
b Denominator: Total number of children age 6-9 that have seen a dental provider within the measurement period
c Data Source: EHR, Claims
d Rationale/Evidence: Children who have regular access to a dental provider are more likely to have received preventive dental services such as sealant placement.

IT-7.2 Cavities: Percentage of children with untreated dental caries (Healthy People 2020) *(Standalone measure)*

a Numerator: Number of children with untreated dental caries
b Denominator: Total number of children that have seen a dental provider within the measurement period
c Data Source: EHR, Claims
d Rationale/Evidence: Children who have regular access to a dental provider are less likely to suffer from untreated dental caries

IT-7.3 Early Childhood Caries (fluoride applications) *(Non-standalone measure)*
Primary Caries Prevention Intervention as Offered by Primary Care Providers, including Dentists - Percentage of children, age 0-6 years, who received a fluoride varnish application during the measurement period.

a Numerator: Number of children age 0-6 years that have received at least one fluoride varnish application during the measurement period
b Denominator: Total number of children age 0-6 years that have been seen by a primary care or dental provider.
c Data Source: EHR, Claims
d Rationale/Evidence: Children who have regular access to a dental provider are more likely to have received preventive dental services such as fluoride varnish application.

IT-7.4 Topical Fluoride application *(Non-standalone measure)*
Primary Caries Prevention Intervention as Offered by Primary Care Providers, including Dentists - Percentage of children, age 0-20 years, who received a fluoride varnish application during the measurement period.

a Numerator: Number of children age 0-20 years that have received at least one fluoride varnish application during the measurement period
b Denominator: Total number of children age 0-20 years that have been seen by a primary care or dental provider.
c Data Source: EHR, Claims
d Rationale/Evidence: Children who have regular access to a dental provider are more likely to have received preventive dental services such as fluoride varnish application

IT-7.5 Proportion of older adults aged 65 to 74 years who have lost all their natural teeth (Healthy People 2020) *(Standalone measure)*

a Numerator: Number of adults aged 65-74 that have lost all of their natural teeth.
b Denominator: Number of adults aged 65-74 in the patient or target population.
c Data Source: EHR, Claims

IT-7.6 Urgent Dental Care Needs in Children: Percentage of children with urgent dental care needs *(Standalone measure)*
Urgent dental care is defined as needing dental care within 24-48 hours because of signs or symptoms that include pain, infection, and/or swelling.

a Numerator: Number of children with urgent dental care needs
b Denominator: Total number of children seen by a dental provider
c Data Source: EHR, Claims
d Rationale/Evidence: Children are less likely to suffer from more severe, urgent oral health problems with adequate and regular access to dental care

IT-7.7 Urgent Dental Care Need in Older Adults: Proportion of older adults aged 65 and older with urgent dental care needs ***(Standalone measure)***

a Numerator: Number of adults 65 and older with urgent dental care needs
b Denominator: Total number of geriatric patients seen by a dental provider
c Data Source: EHR, Claims
d Rationale/Evidence: Geriatric patients are less likely to suffer from more severe, urgent oral health problems with adequate and regular access to dental care

IT-7.8 Chronic Disease Patients Accessing Dental Services: Percentage of patients with chronic disease conditions accessing dental services following referral by their medical provider ***(Standalone measure)***

a Numerator: Number of chronic disease patients who access dental services as the result of a referral
b Denominator: Total number of referrals for dental services for chronic disease patient by medical providers
c Data Source: EHR, Claims
d Rationale/Evidence: Patients are more likely to seek dental services when the importance of need is documented by a formal referral being made

IT-7.9 Medical Treatment Needs Among Chronic Disease Patients: Percentage of chronic disease patients with improved disease controls status following dental treatment ***(Standalone measure)***

a Numerator: Percent change of chronic disease patients who following dental treatment have improved disease control status (e.g. uncontrolled, poorly or well controlled)
b Denominator:
c Data Source: EHR, Claims
d Rationale/Evidence: Reduction in inflammatory mediators by addressing oral health conditions helps to improve disease control status

IT-7.10 Other Outcome Improvement Target: must be evidence based, appropriate for proposed project, and meet the definition of an outcome measure **(*Standalone measure)***

a Numerator: TBD by performing provider
b Denominator: TBD by performing provider
c Data Source: TBD by performing provider
d Rationale/Evidence: Rationale to include citation, evidence base and significance of target towards intervention population or community of need

OD- 8 Perinatal Outcomes

IT-8.1 Timeliness of Prenatal/Postnatal Care[262] (CHIPRA Core Measure/NQF #1517) *(Non-standalone measure)*

a. Numerator: Deliveries of live births for which women receive the following facets of prenatal and postpartum care:
Rate 1: Received a prenatal care visit as a member of the organization in the first trimester or within 42 days of enrollment in the organization.
Rate 2: Had a postpartum visit for a pelvic exam or postpartum care on or between 21 and 56 days after delivery.
b. Denominator: Deliveries of live births between November 6 of the year prior to the measurement year and November 5 of the measurement year
c. Data source: EHR, claims
d. Rationale/Evidence: The percentage of deliveries of live births between November 6 of the year prior to the measurement year and November 5 of the measurement year. For these women, the measure assesses the following facets of prenatal and postpartum care.
• Rate 1: Timeliness of Prenatal Care. The percentage of deliveries that received a prenatal care visit as a member of the organization in the first trimester or within 42 days of enrollment in the organization.
• Rate 2: Postpartum Care. The percentage of deliveries that had a postpartum visit on or between 21 and 56 days after delivery.

IT-8.2 Percentage of Low Birth- weight births (CHIPRA/NQF # 1382)[263] *(Standalone measure)*

a. Numerator: The number of babies born weighing <2,500 grams at birth
b. Denominator: All births
c. Data source: EHR, claims

IT-8.3 Early Elective Delivery (Medicaid Adult Core Measure/NQF #469)[264] *(Standalone measure)*

a. Numerator: Patients with elective deliveries with a Principal Procedure Code or an Other Procedure Codes for one or more of the following:
• Medical induction of labor as defined in Appendix A, Table 11.05 available at:

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[262] http://www.qualityforum.org/QPS
[263] http://www.qualityforum.org/QPS
[264] http://www.qualityforum.org/QPS

http://manual.jointcommission.org
• Cesarean section as defined in Appendix A, Table 11.06 while not in Active Labor or experiencing Spontaneous Rupture of Membranes available at: http://manual.jointcommission.org

b. Denominator: Patients delivering newborns with >= 37 and < 39 weeks of gestation completed
   - Exclusions:
     Principal Diagnosis Code or Other Diagnosis Codes for conditions possibly justifying elective delivery prior to 39 weeks gestation as defined in Appendix A, Table 11.07
     • Less than 8 years of age
     • Greater than or equal to 65 years of age
     • Length of Stay >120 days
     • Enrolled in clinical trials
c. Data source: EHR, claims
d. Rationale/Evidence: This measure assesses patients with elective vaginal deliveries or elective cesarean sections at >= 37 and < 39 weeks of gestation completed. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-02: Cesarean Section, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding)

IT-8.4 Antenatal Steroids (Medicaid Adult Core Measure/NQF #476)[265] *(Non-stand alone measure)*

a. Numerator: Patients with a full course of antenatal steroids completed prior to delivering preterm newborns (refer to Appendix B, Table 11.0, antenatal steroid medications available at: http://manual.jointcommission.org)
b. Denominator: Patients delivering live preterm newborns with >=24 and <32 weeks gestation completed
   - Exclusions:
     Less than 8 years of age
     • Greater than or equal to 65 years of age
     • Length of Stay >120 days
     • Enrolled in clinical trials
     • Documented Reason for Not Administering Antenatal Steroid
     • Principal Diagnosis Code or Other Diagnosis Codes for fetal demise as defined in Appendix A, Table 11.09.1 available at: http://manual.jointcommission.org
c. Data source: EHR, claims
d. Rationale/Evidence: This measure assesses patients at risk of preterm delivery at >=24 and <32 weeks gestation receiving antenatal steroids prior to delivering preterm newborns. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-

[265] http://www.qualityforum.org/

02: Cesarean Section, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding).

IT-8.5 Frequency of ongoing prenatal care (AHRQ[266]/CHIRPA[267])*(Non-stand alone measure)*

a. Numerator: Women in the denominator sample who had an unduplicated count of less than 21%, 21-40%, 41-60%, 61-80%, or more than 81% of expected visits, adjusted for the month of pregnancy at enrollment and gestational age.
b. Denominator: Women who delivered a live birth during the measurement yr.
c. Data source: EHR, Claims
d. Rationale/Evidence: This measure looks at the use of prenatal care services. It tracks Medicaid-enrolled women who had live births during the past year to determine the percentage of recommended prenatal visits they had. Complications can arise at any time during pregnancy. For that reason, continued monitoring throughout pregnancy is necessary. Frequency and adequacy of ongoing prenatal visits are important factors in minimizing pregnancy problems. The American College of Obstetricians and Gynecologists recommends that prenatal care begin as early as possible in the first trimester of pregnancy. Visits should follow a schedule.
    - Every 4 weeks for the first 28 weeks of pregnancy
    - Every 2 to 3 weeks for the next 7 weeks
    - Weekly thereafter until delivery

IT-8.6 Cesarean Rate for Nulliparous Singleton Vertex (AHRQ[268]/CHIRPA[269]) *(Non-stand alone measure)*

a. Numerator: The number of women in the denominator who had a cesarean section
b. Denominator: Nulliparous patients delivered of a live term singleton newborn in vertex presentation
c. Data source: EHR, Claims
d. Rationale/Evidence: The removal of any pressure to not perform a cesarean birth has led to a skyrocketing of hospital, state and national cesarean section (CS) rates. Some hospitals now have CS rates over 50%. Hospitals with CS rates at 15% to 20% have infant outcomes that are just as good and better maternal outcomes (Gould et al., 2004). There are no data that higher rates improve any outcomes, yet the CS rates continue to rise. This measure seeks to focus attention on the most variable portion of the CS epidemic, the term labor CS in nulliparous women. This population segment accounts for the large majority of the variable portion of the CS rate, and is the area most affected by subjectivity. As compared to other CS measures, what is different about nulliparous term singleton vertex (NTSV) CS rate (Low-risk Primary CS in first births) is that there are clear cut quality improvement activities that can be done to address the

[266] http://www.qualitymeasures.ahrq.gov/content.aspx?id=34125
[267] http://www.ahrq.gov/chipra/corebackground/corebacktab.htm#ncqa
[268] http://www.qualitymeasures.ahrq.gov/content.aspx?id=34144
[269] http://www.ahrq.gov/chipra/corebackground/corebacktab.htm#ncqa

differences. Main et al. (2006) found that over 60% of the variation among hospitals can be attributed to first birth labor induction rates and first birth early labor admission rates. The results showed if labor was forced when the cervix was not ready the outcomes were poorer. Alfirevic et al. (2004) also showed that labor and delivery guidelines can make a difference in labor outcomes. Many authors have shown that physician factors, rather than patient characteristics or obstetric diagnoses, are the major driver for the difference in rates within a hospital (Berkowitz et al., 1989; Goyert et al., 1989; Luthy et al., 2003). The dramatic variation in NTSV rates seen in all populations studied is striking according to Menacker (2005). Hospitals within a state (Coonrod et al., 2008; California Office of Statewide Hospital Planning and Development [OSHPD], 2007) and physicians within a hospital (Main, 1999) have rates with a 3-5 fold variation.

IT-8.7 Birth Trauma Rates (AHRQ-PSI)[270] *(Non-stand alone measure)*

a Numerator: Discharges among cases meeting the inclusion and exclusion rules for the denominator with diagnosis code for birth trauma in any diagnosis field.
- Exclude:
  - Preterm infants with a birth weight less than 2,000 grams
  - Infants with any diagnosis code of injury to brachial plexus
  - Infants with any diagnosis code of osteogenesis imperfecta

b Denominator: All newborns

c Data Source: EHR, Claims

d Rationale/Evidence: This indicator has been widely used in the obstetric community. It was proposed by Miller and colleagues (2001) in the original "Agency for Healthcare Research and Quality (AHRQ) Patient Safety Indicator (PSI) Algorithms and Groupings."

IT-8.8 Infant Mortality *(Standalone measure)*

a. Numerator: Number of infant deaths during the measurement period
b. Denominator: Number of live births during the time period
c. Data Source: EHR, county vital statistics

IT-8.9 Other Outcome Improvement Target: must be evidence based, appropriate for proposed project, and meet the definition of an outcome measure.

a Numerator: TBD by performing provider

b Denominator: TBD by performing provider

c Data Source: TBD by performing provider

d Rationale/Evidence: Rationale to include citation, evidence base and significance of target towards intervention population or community of need

OD- 9 Right Care, Right Setting

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[270] http://www.qualitymeasures.ahrq.gov/content.aspx?id=26531

IT-9.1 Decrease in mental health admissions and readmissions to criminal justice settings such as jails or prisons *(Standalone measure)*

a Numerator: The number of individuals receiving project intervention(s) who had a potentially preventable admission/readmission to a criminal justice setting (e.g. jail, prison, etc.) within the measurement period.

b Denominator: The number of individuals receiving project intervention(s)

c Data Sources: Claims/ encounter and clinical record data; anchor hospital and other hospital records, criminal justice system records, local MH authority and state MH data system records

d Rationale/Evidence: Admission and readmission to criminal justice settings such as jails and prisons is disruptive and deleterious to recovery from behavioral health disorders. Studies of recidivistic criminal justice patients in Texas and other states have demonstrated poorer physical health status, increased incidence of homelessness increased propensity to use emergency department and inpatient services. Interventions which can prevent individuals from cycling through the criminal justice system can help avert poor health and mental health outcomes, reduce long term medical costs and improve functioning.

IT-9.2 ED appropriate utilization *(Standalone measure)*

- Reduce all ED visits (including ACSC)[271]
- Reduce pediatric Emergency Department visits (CHIPRA Core Measure)[272]
- Reduce Emergency Department visits for target conditions
  - Congestive Heart Failure
  - Diabetes
  - End Stage Renal Disease
  - Cardiovascular Disease /Hypertension
  - Behavioral Health/Substance Abuse
  - Chronic Obstructive Pulmonary Disease
  - Asthma

IT-9.3 Pediatric/Young Adult Asthma Emergency Department Visits- NQF 1381[273] *(Standalone measure)*

a Numerator: Percentage of patients with asthma who have greater than or equal to one visit to the emergency room for asthma during the measurement period.

b Denominator: Denominator is all patients age two through age 20, diagnosed with asthma during the measurement period. The denominator will include recipients with claims with asthma as primary and secondary diagnoses with the dates of service “Begin Date through End Date" equal any consecutive 12 month period with paid dates from "Begin Date through End Date which includes 3

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[271] http://archive.ahrq.gov/data/safetynet/billappb.htm

[272] http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Quality-of-Care/CHIPRA-Initial-Core-Set-of-Childrens-Health-Care-Quality-Measures.html

[273] http://www.qualityforum.org/QPS

month tail". This is the measurement period. Total period of our pilot initiative was 24 months. We used Baseline Measurement period of March 1, 2006 through February 28, 2007 with paid dates through May 31, 2007 to provide a 3 month claims tail.

c Data Source: EHR, Claims

d Rationale/Evidence: Please see footnote for specific diagnosis codes to be included as well as criteria for case exclusion.

IT-9.4 Other Outcome Improvement Target: must be evidence based, appropriate for proposed project, and meet the definition of an outcome measure.

a Numerator: TBD by performing provider

b Denominator: TBD by performing provider

c Data Source: TBD by performing provider

d Rationale/Evidence: Rationale to include citation, evidence base and significance of target towards intervention population or community of need.

OD- 10 Quality Of Life/ Functional Status [274]

IT-10.1 Quality of Life-[275],[276],[277] (*Standalone measure)*

a. Demonstrate improvement in quality of life (QOL) scores, as measured by evidence based and validated assessment tool, for the target population.

b. Data source: Provider may select a validated assessment tool for quality of life. Some examples include AQoL, SF-36, 20 or 12, PedsQL

c. Rationale/Evidence: Although much of health care is focused on increasing longevity, many of the medical treatments are specifically designed to improve symptoms and function, two essential components of health-related quality of life. In many cases, the best way to measure symptoms and functional status is by direct patient survey. The importance of such patient-reported outcomes is evidenced by their increased use in clinical trials and in drug and device label claims. Effective quality improvement requires relentless focus on the patient outcomes.

IT-10.2 Activities of Daily Living *(Standalone measure)*

a. Demonstrate improvement in ADL scores, as measured by evidence based and validated assessment tool, for the target population.

b. Data source: Provider may select a validated assessment tool for activities of daily living. Some examples include the Katz ADL Scale, Lawton IADL Scale[278], Barthal Index of Activities of Daily Living[279] and Bristol Activities of Daily Living Scale (for dementia patients).

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[274] http://www.nihpromis.org/default

[275] http://www.qualitymeasures.ahrq.gov/expert/expert-commentary.aspx?id=16466&search=quality+of+life

[276] http://www.ncbi.nlm.nih.gov/pubmed/10472152

[277] http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3349491/

[278] http://son.uth.tmc.edu/coa/FDGN_1/RESOURCES/ADLandIADL.pdf

[279] http://www.healthcare.uiowa.edu/igec/tools/function/barthelADLs.pdf

c. Rationale/Evidence: Although much of health care is focused on increasing longevity, many of the medical treatments are specifically designed to improve symptoms and function, two essential components of health-related quality of life. In many cases, the best way to measure symptoms and functional status is by direct patient survey. The importance of such patient-reported outcomes is evidenced by their increased use in clinical trials and in drug and device label claims. Effective quality improvement requires relentless focus on the patient outcomes.

IT-10.3 Functional status metrics *(Standalone measure)*

Applied Cognition domain[280]:

a. Numerator: Mean change score in applied cognition of patients in a post-acute care setting as assessed using the "Applied Cognition" domain of the Activity Measure for Post-acute Care (AM-PAC)
b. Denominator: Patients in the post-acute care setting who were assessed at baseline and at some follow-up point in time using the "Applied Cognition" domain of the Activity Measure for Post-acute Care (AM-PAC)
c. Data source: Patient/Individual survey
d. Rationale/Evidence: Initially, Activity Measure for Post-acute Care (AM-PAC) test items were administered to a large sample of patients from different care settings with different diagnoses. Factor analytic work identified three distinct, interpretable factors that accounted for 72% of the variance: Applied Cognition (44%), Daily Activities (19%) and Basic Mobility (9%). These factors were verified by a confirmatory factor analysis and defined as the three AM-PAC domains. Using Item Response Theory (IRT), items in each domain were scaled along a continuum of item difficulty. Items that were redundant or did not fit the model were eliminated. The remaining items formed the AM-PAC item banks, which included a wide range of items calibrated along a continuum of difficulty. Adequate levels of reliability of individual items and validity of the AM-PAC have been established and have been reported. Refer to the articles referenced in the "Evidence for Reliability/Validity Testing" field for further information.

Basic Mobility Domain[281]:

a. Numerator: Mean change score in basic mobility of patients in a post-acute care setting as assessed using the "Basic Mobility" domain of the Activity Measure for Post-acute Care (AM-PAC)
b. Denominator: Patients in the post-acute care setting who were assessed at baseline and at some follow-up point in time using the "Basic Mobility" domain of the Boston University Activity Measure for Post-acute Care (AM-PAC)
c. Data source: Patient/Individual survey

Daily Activities Domain[282]:

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[280] http://www.qualitymeasures.ahrq.gov/content.aspx?id=27139&search=functional+status
[281] http://www.qualitymeasures.ahrq.gov/content.aspx?id=27137&search=functional+status
[282] http://www.qualitymeasures.ahrq.gov/content.aspx?id=27138&search=functional+status

a. Numerator: Mean change score in daily activity of patients in a post-acute care setting as assessed using the "Daily Activities" domain of the Boston University Activity Measure for Post-acute Care (AM-PAC)
b. Denominator: Patients in the post-acute care setting who were assessed at baseline and at some follow-up point in time using the "Daily Activities" domain of the Activity Measure for Post-acute Care (AM-PAC)
c. Data source: Patient/Individual survey

IT-10.4 Functional status assessment for knee replacement (ONC 104A)- Percentage of patients aged 18 years and older with primary total knee arthroplasty (TKA) who completed baseline and follow-up (patient-reported) functional status assessments. ***(Standalone measure)***

a Numerator: Patients with functional status assessment results present in the EHR at the encounter before and after procedure during the measurement year
b Denominator: Adults aged 18 as of January 1 in the measurement year who had an outpatient encounter within 6 months prior to procedure and at least 60 days and not more than 180 days after TKA procedure
c Data Source: EHR, Claims

IT-10.5 Functional status assessment for hip replacement (ONC 104B)- Percentage of patients aged 18 years and older with primary total hip arthroplasty (THA) who completed baseline and follow-up (patient-reported). functional status assessments. ***(Standalone measure)***

a Numerator: Patients with functional status assessment results present in the EHR at the encounter before and after procedure during the measurement year
b Denominator: Adults aged 18 as of January 1 in the measurement year who had an outpatient encounter within 6 months prior to procedure and at least 60 days and not more than 180 days after THA procedure
c Data Source: EHR, Claims

IT-10.6 Functional status assessment for complex chronic conditions (ONC 106)- Percentage of patients with two or more high impact conditions who completed initial and follow-up (patient-reported) functional status assessments. ***(Non-standalone measure)***

a Numerator: Functional status assessment results present in the EHR at the encounter at an initial visit and follow-up visit during the measurement year
b Denominator: Patients who had an outpatient encounter and an active diagnosis of two high impact medical conditions.
c Data Source: EHR, Claims

IT-10.7 Other Outcome Improvement Target : must be evidence based, appropriate for proposed project, and meet the above definition of an outcome measure.

a Numerator: TBD by performing provider
b Denominator: TBD by performing provider
c Data Source: TBD by performing provider

d Rationale/Evidence: Rationale to include citation, evidence base and significance of target towards intervention population or community of need

OD- 11 Addressing Health Disparities in Minority Populations

IT-11.1 Improvement in Clinical Indicator in identified disparity group. Clinical indicator to be improved and disparity group to be determined by provider ***(Standalone measure)***

a Numerator: TBD by performing provider
b Denominator: TBD by performing provider
c Data Source: TBD by performing provider
d Rationale/Evidence: Rationale to include citation, evidence base and significance of target towards intervention population or community of need

IT-11.2 Improvement in disparate health outcomes for target population, including identification of the disparity gap. ***(Non-stand alone measure)***

a Numerator: TBD by performing provider
b Denominator: TBD by performing provider
c Data Source: TBD by performing provider
d Rationale/Evidence: Rationale to include citation, evidence base and significance of target towards intervention population or community of need

IT-11.3 Improve utilization rates of clinical preventive services (testing, preventive services, treatment) in target population with identified disparity. ***(Non-standalone measure)***

a Numerator: TBD by performing provider
b Denominator: TBD by performing provider
c Data Source: TBD by performing provider
d Rationale/Evidence: Rationale to include citation, evidence base and significance of target towards intervention population or community of need

IT-11.4 Improve patient satisfaction and/or quality of life scores in target population with identified disparity. ***(Non-stand alone measure)***

a Numerator: TBD by performing provider
b Denominator: TBD by performing provider
c Data Source: TBD by performing provider
d Rationale/Evidence: Rationale to include citation, evidence base and significance of target towards intervention population or community of need

IT-11.5 Select any other Category 3 outcome (PPAs, PPRs, or ED utilization) or a combination of non-standalone measures and target a specific minority population with a demonstrated disparity in the particular measure ***(Standalone measure)***

a Numerator: TBD by performing provider
b Denominator: TBD by performing provider
c Data Source: TBD by performing provider
d Rationale/Evidence: Rationale to include citation, evidence base and significance of target towards intervention population or community of need

IT-11.6 Other Outcome Improvement Target: must be evidence based, appropriate for proposed project, and meet the definition of an outcome measure.

a Numerator: TBD by performing provider
b Denominator: TBD by performing provider
c Data Source: TBD by performing provider
d Rationale/Evidence: Rationale to include citation, evidence base and significance of target towards intervention population or community of need

OD- 12 Primary Care and Primary Prevention

IT-12.1 Breast Cancer Screening (HEDIS 2012) ***(Non-standalone measure)***

a Numerator: Number of women aged 40 to 69 that have received an annual mammogram during the reporting period. Denominator: Number of women aged 40 to 69 in the patient or target population. Women who have had a bilateral mastectomy are excluded
b Data Source: EHR, Claims
c Rationale/Evidence: Screening for cancer implies testing for early stages of disease before symptoms occur. It involves application of an early detection test to a large number of apparently healthy people to identify those having unrecognized cancer. People with positive screening tests are subsequently investigated with diagnostic tests and those with confirmed disease are offered appropriate treatment and follow-up. The objective of screening is to reduce incidence of and/or death from cancer by detecting early preclinical disease when treatment may be easier and more effective than for advanced cancer diagnosed after the symptoms occur. It is important to evaluate the efficacy of a given screening approach to reduce disease burden, harm and cost, as well as its overall cost-effectiveness, before it is considered for widespread implementation in large population settings. The only justification for a screening program is early diagnosis that leads to a cost-effective and significant reduction in disease burden.

IT-12.2 Cervical Cancer Screening (HEDIS 2012) ***(Non-standalone measure)***

a Numerator: Number of women aged 21 to 64 that have received a PAP in the measurement year or two prior years.

b Denominator: Women aged 21 to 64 in the patient or target population. Women who have had a complete hysterectomy with no residual cervix are excluded.

c Data Source: EHR, Claims

d Rationale/Evidence: Screening for cancer implies testing for early stages of disease before symptoms occur. It involves application of an early detection test to a large number of apparently healthy people to identify those having unrecognized cancer. People with positive screening tests are subsequently investigated with diagnostic tests and those with confirmed disease are offered appropriate treatment and follow-up. The objective of screening is to reduce incidence of and/or death from cancer by detecting early preclinical disease when treatment may be easier and more effective than for advanced cancer diagnosed after the symptoms occur. It is important to evaluate the efficacy of a given screening approach to reduce disease burden, harm and cost, as well as its overall cost-effectiveness, before it is considered for widespread implementation in large population settings. The only justification for a screening program is early diagnosis that leads to a cost-effective and significant reduction in disease burden.

IT-12.3 Colorectal Cancer Screening (HEDIS 2012) ***(Non-standalone measure)***

a Numerator: Number of adults aged 50 to 75 that have received one of the following screenings. Fecal occult blood test yearly, Flexible sigmoidoscopy every five years, Colonoscopy every 10 years

b Denominator: Number of adults aged 50 to 75 in the patient or target population. Adults with colorectal cancer or total colectomy are excluded.

c Data Source: EHR, Claims

d Rationale/Evidence: Screening for cancer implies testing for early stages of disease before symptoms occur. It involves application of an early detection test to a large number of apparently healthy people to identify those having unrecognized cancer. People with positive screening tests are subsequently investigated with diagnostic tests and those with confirmed disease are offered appropriate treatment and follow-up. The objective of screening is to reduce incidence of and/or death from cancer by detecting early preclinical disease when treatment may be easier and more effective than for advanced cancer diagnosed after the symptoms occur. It is important to evaluate the efficacy of a given screening approach to reduce disease burden, harm and cost, as well as its overall cost-effectiveness, before it is considered for widespread implementation in large population settings. The only justification for a screening program is early diagnosis that leads to a cost-effective and significant reduction in disease burden.

IT-12.4 Pneumonia vaccination status for older adults (HEDIS 2012) ***(Non-standalone measure)***

a Numerator: Number of adults aged 65 and older that have ever received a pneumonia vaccine.

b Denominator: Number of adults aged 64 and older in the patient or target population.
c Data Source: EHR, Claims

IT-12.5 Other USPSTF-endorsed screening outcome measures

a Numerator: TBD by provider
b Denominator: TBD by provider.
c Data Source: EHR, Claims
d Rationale/Evidence: Rationale to include citation, evidence base and significance of target towards intervention population or community of need

IT-12.6 Other Outcome Improvement Target: must be evidence based, appropriate for proposed project, and meet the definition of an outcome measure.

a Numerator: TBD by performing provider
b Denominator: TBD by performing provider
c Data Source: TBD by performing provider
d Rationale/Evidence: Rationale to include citation, evidence base and significance of target towards intervention population or community of need

OD- 13 Palliative Care

IT-13.1 Pain assessment (NQF-1637) *(Non-standalone measure)*

Percentage of hospice or palliative care patients who screened positive for pain and who received a clinical assessment of pain within 24 hours of screening.[283]

a. Numerator: Patients who received a comprehensive clinical assessment to determine the severity, etiology and impact of their pain within 24 hours of screening positive for pain.
b. Denominator: Patients enrolled in hospice OR receiving palliative care who report pain when pain screening is done on the admission evaluation / initial encounter.
    - Exclusion: patients with length of stay < 1 day in palliative care or <7 days in hospice, patients who were not screened for pain. Patients who screen negative for pain are excluded from the denominator.
c. Data Source: EHR, Claims
d. Rationale/Evidence: Pain is under-recognized by clinicians and undertreated, resulting in excess suffering from patients with serious illness. Pain screening and assessments are necessary in order to improve the patient centered outcome of pain, and its effects on global outcomes of function and quality of life.

IT-13.2 Treatment Preferences (NQF 1641) *(Non-standalone measure)*

Percentage of patients with chart documentation of preferences for life sustaining treatments.[284]

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[283] http://www.nahc.org/regulatory/HospiceRegs/1637.PDF
[284] http://www.nahc.org/regulatory/HospiceRegs/1641-1.PDF

a. Numerator: Patients whose medical record includes documentation of life sustaining preferences
b. Denominator: Seriously ill patients enrolled in hospice OR receiving specialty palliative care in an acute hospital setting.
    - Exclusions: patients with length of stay < 1 day in palliative care or <7 days in hospice.
c. Data Source: EHR, Claims
d. Rationale/Evidence: Pain is under-recognized by clinicians and undertreated, resulting in excess suffering from patients with serious illness. Pain screening and assessments are necessary in order to improve the patient centered outcome of pain, and its effects on global outcomes of function and quality of life.

IT-13.3 Proportion with more than one emergency room visit in the last days of life (NQF 0211)- Percentage of patients who died from cancer with more than one emergency room visit in the last days of life.[285] ***(Standalone measure)***

a. Numerator: Patients who died from cancer and had >1 ER visit in the last 30 days of life
b. Denominator: Patients who died from cancer.
c. Data Source: EHR, Claims
d. Rationale/Evidence: Although, when operationalized as a claims-based measure, this does not take patient preferences into account, the idea is for the measure to be seen as an overall indication of practice style and/or available palliative resources. An individual patient experiencing this process of care has not necessarily received poor quality care, but unless there is a reason to think that the patients in one setting have a significantly greater proportion with differing preferences, aggregate rates of the measure can justifiably be compared across settings. In this way it is a reflection of the quality of end-of-life care.

IT-13.4 Proportion admitted to the ICU in the last 30 days of life (NQF 0213) - Percentage of patients who died from cancer admitted to the ICU in the last 30 days of life. [286]***(Standalone measure)***

a. Numerator: Patients who died from cancer and were admitted to the ICU in the last 30 days of life
b. Denominator: Patients who died from cancer.
c. Data Source: EHR, Claims
d. Rationale/Evidence: Using patient satisfaction with end-of-life care as a desired outcome, patient survey data reflect patients' desires to die at home and to not be connected to machines at the end-of-life. ICU use near the end of life may indicate a lack of discussion about advance directives. ICU care is expensive and uncomfortable, and generally not appropriate for the dying patient.

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[285] www.qualityforum.org
[286] www.qualityforum.org

IT-13.5 Percentage of patients receiving hospice or palliative care services with documentation in the clinical record of a discussion of spiritual/religions concerns or documentation that the patient/caregiver did not want to discuss. (NQF 1647 modified) ***(Non-standalone measure)***

a. Numerator: Number of patient with clinical record documentation of spiritual/religious concerns or documentation that the patient/family did not want to discuss.
b. Denominator: Total number of patient's discharged from hospice or palliative care during the designated reporting period.
c. Data Source: EHR, Claims
d. Rationale/Evidence: One of the unique aspects of hospice care involves a true interdisciplinary approach providing care for both the physical and psychosocial and spiritual needs of the patient and caregiver. Discussion of spiritual concerns is the core of a rigorous assessment of spiritual care needs and is essential to assuring that these needs are met. This measure will help agencies improve processes for addressing spiritual/religious concerns for patients and families receiving hospice care.

IT-13.6 Other Outcome Improvement Target: must be evidence based, appropriate for proposed project, and meet the definition of an outcome measure.

a Numerator: TBD by performing provider
b Denominator: TBD by performing provider
c Data Source: TBD by performing provider
d Rationale/Evidence: Rationale to include citation, evidence base and significance of target towards intervention population or community of need

Category 4 Population-focused Improvements

The Category 4 measures are:

- Aligned with the low-income, Medicaid, and uninsured population;
- Identified as high priority given the health care needs and issues of the patient population served; and
- Viewed as valid health care indicators to inform and identify areas for improvement in population health within the health care system.

Category 4 Structure:

- Required Reporting Domains: Category 4 contains five domains on which hospital performing providers must report, as specified in the Program Funding and Mechanics Protocol. The required reporting domains include:
  - Potentially preventable admissions (PPAs)
  - 30-day readmissions
  - Potentially preventable complications (PPCs)
  - Patient-centered healthcare, including patient satisfaction and medication management
  - Emergency department
- Optional Reporting Domain: At their option, hospital performing providers may report on Reporting Domain (RD) 6, which is the CMS Initial Core Set of Measures for Adults and Children in Medicaid/CHIP. While reporting on this domain is optional, participation in Domain 6 reporting is required to value Category 4 at the 15 percent maximum (see Category 4 Valuation below.)
- Hospital performing providers, with the exception of those that are exempt from Category 4 reporting in accordance with paragraph 11.f of the Program Funding and Mechanics Protocol, must report on Category 4 measures in the required reporting domains. Each hospital performing provider subject to required Category 4 reporting must report on all measures in the required reporting domains, unless for certain measures the provider does not have statistically valid data, as defined in paragraph 11.e of the Program Funding and Mechanics Protocol.
- Each performing provider subject to Category 4 required reporting will include Category 4 measures for PPCs (RD-3) during DY 4-5 and for all other required reporting domains during DY 3-5.
- The Category 4 emphasis is on the reporting of population health measures to gain information on and understanding of the health status of key populations and to build the capacity for reporting on a comprehensive set of population health metrics; therefore, hospital performing providers will not be required to achieve improvement in Category 4.

Category 4 Valuation:

- Maximum valuation: In order to value Category 4 up to the 15 percent maximum for DY 3-5, hospital performing providers must report on the optional reporting domain (RD-6) in addition to the five required reporting domains.
- 10 percent valuation: Hospital performing providers that do not report on the optional reporting domain (RD-6) only may value Category 4 at the minimum 10 percent for DY 3-5. Performing providers that only report on the required reporting domains may designate to Categories 1, 2, or 3 the 5 percent valuation they are unable to obtain in Category 4 by foregoing reporting on the optional domain.

Category 4 Reporting Measures by Domain:

RD-1. Potentially Preventable Admissions

1. **Congestive Heart Failure Admission rate** (derived from AHRQ Prevention Quality Indicator (PQI) #8)[287]
    a. **Numerator:** All inpatient discharges from the hospitals of patients age 18 years and older with ICD-9-CM principal diagnosis code for heart failure within the demonstration year reporting period
    b. **Denominator:** Number of residents age 18 and older living in the RHP counties

2. **Diabetes Admission Rates**
    i. Diabetes, short term complications (derived from AHRQ PQI #1)[288]
        a. **Numerator**: All inpatient discharges from [289] with ICD-9-CM principal diagnosis code for short-term complications (ketoacidosis, hyperosmolarity, coma) within the demonstration year reporting period
        b. **Denominator**: Number of patients/residents age 18 and over years with diabetes who have visited the RHP system primary care clinic(s) two or more times in the past 12 months living in the RHP counties.

    ii. Uncontrolled Diabetes (derived from AHRQ Prevention Quality Indicator (PQI) #14)[290]
        a. **Numerator:** All inpatient discharges from all participating hospital age 18 and older with ICD-9-CM principal diagnosis code for uncontrolled diabetes, without mention of a short-term or long-term complication within the demonstration year
        b. **Denominator:** Number of residents age 18 and older living in the RHP counties

    iii. Diabetes Long-term Complications Admission Rate (derived from AHRQ Prevention Quality Indicator (PQI) #3)

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[287] Derived from: http://www.qualityindicators.ahrq.gov/Downloads/Modules/PQI/V44/TechSpecs/PQI%2008%20Heart%20Failure%20Admission%20Rate.pdf

[288] Derived from: http://www.qualityindicators.ahrq.gov/Downloads/Modules/PQI/V44/TechSpecs/PQI%2001%20Diabetes%20Short-term%20Complications%20Admissions%20Rate.pdf

[290] Derived from: http://www.qualityindicators.ahrq.gov/Downloads/Modules/PQI/V44/TechSpecs/PQI%2014%20Uncontrolled%20Diabetes%20Admission%20Rate.pdf

a. **Numerator:** Discharges age 18 years and older with ICD-9-CM principal diagnosis code for long-term complications (renal, eye, neurological, circulatory, or complications not otherwise specified).
b. **Denominator:** Number of residents age 18 and older living in the RHP counties

3. **Behavioral Health and Substance Abuse Admission rate**
   - (based on other selected PPA primary diagnoses)
     a. **Numerator:** Number of patients with a potentially preventable admission for a select primary diagnosis that have mental health or substance abuse as a secondary diagnosis
     b. **Denominator:** Number of patients with a potentially preventable admission for a select primary diagnosis

4. **Chronic Obstructive Pulmonary Disease or Asthma in Adults Admission rate** (derived from AHRQ PQI #5)[291]
   a. **Numerator**: All discharges of age 40 years and older with ICD-9-CM principal diagnosis code for COPD or asthma
   b. **Denominator**: Number of residents age 18 and older living in the RHP counties

5. **Hypertension Admission rate** (derived from AHRQ PQI #7)[292]
   a. **Numerator**: All discharges of age 18 years and older with ICD-9-CM principal diagnosis code for hypertension
   b. **Denominator**: Number of residents age 18 and older living in the RHP counties

6. **Pediatric Asthma**
   - **Pediatric Asthma**
     a. **Numerator:** Number of asthma patients ages 5-18 who return to the emergency department for treatment of asthma within 15 days of the last visit to the ED
     b. **Denominator:** Number of asthma patients age 5-18 who were seen in emergency department for asthma treatment (ICD-9 codes: 493.00, 493.01, 493.10, 493.11, 493.90, 493.91).

7. **Bacterial pneumonia immunization**
   - Pneumococcal Immunization (PPV23) – Overall Rate (CMS IQR/Joint Commission measure IMM-1a)

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[291] Derived from: http://www.qualityindicators.ahrq.gov/Downloads/Modules/PQI/V44/TechSpecs/PQI%2005%20COPD%20or%20Asthma%20in%20Older%20Adults%20Admission%20Rate.pdf

[292] http://www.qualityindicators.ahrq.gov/Downloads/Modules/PQI/V44/TechSpecs/PQI%2007%20Hypertension%20Admission%20Rate.pdf

8. **Influenza Immunization**
   - Influenza Immunization (CMS IQR/Joint Commission measure IMM-2)

RD-2. 30-day readmissions

1. **Congestive Heart Failure (HF): 30-Day Readmissions**[293]
   a. **Numerator:** The number of readmissions (for patients 18 years and older), for any cause, within 30 days of discharge from the index HF admission (ICD-9-CM codes 402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, and 428.xx). If an index admission has more than 1 readmission, only first is counted as a readmission.
   b. **Denominator:** The number of admissions (for patients 18 years and older), for patients discharged from the hospital with a principal diagnosis of HF (ICD-9-CM codes 402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, and 428.xx) and with a complete claims history for the 12 months prior to admission.

2. **Diabetes: 30-Day Readmissions**
   a. **Numerator:** The number of readmissions (for patients 18 years and older), for any cause, within 30 days of discharge from the index diabetes admission. If an index admission has more than 1 readmission, only first is counted as a readmission.
   b. **Denominator:** The number of admissions (for patients 18 years and older), for patients discharged from the hospital with a principal diagnosis of diabetes and with a complete claims history for the 12 months prior to admission.

3. **Behavioral health & Substance Abuse: 30-Day Readmissions**
   a. **Numerator:** The number of readmissions (for patients 18 years and older), for any cause, within 30 days of discharge from the index behavioral health and substance abuse admission. If an index admission has more than 1 readmission, only first is counted as a readmission.
   b. **Denominator:** The number of admissions (for patients 18 years and older), for patients discharged from the hospital with a principal diagnosis of behavioral health and substance abuse and with a complete claims history for the 12 months prior to admission.

4. **Chronic Obstructive Pulmonary Disease (COPD): 30-Day Readmissions**

[293] http://www.qualityforum.org/QPS/QPSTool.aspx

a. **Numerator:** The number of readmissions (for patients 18 years and older), for any cause, within 30 days of discharge from the index COPD admission. If an index admission has more than 1 readmission, only1 is counted as a readmission.

b. **Denominator:** The number of admissions (for patients 18 years and older), for patients discharged from the hospital with a principal diagnosis of COPD, and with a complete claims history for the 12 months prior to admission.

5. **Stroke: 30-Day Readmissions**

a. **Numerator:** The number of readmissions (for patients 18 years and older), for any cause, within 30 days of discharge from the index stroke admission (ICD-9-CM codes 434.x, 434.0x, 434.1x, 434.9x) . If an index admission has more than 1 readmission, only1 is counted as a readmission.

b. **Denominator:** The number of admissions (for patients 18 years and older), for patients discharged from the hospital with a principal diagnosis of stroke (ICD-9-CM codes 434.x, 434.0x, 434.1x, 434.9x), and with a complete claims history for the 12 months prior to admission.

6. **Pediatric Asthma: 30-Day Readmissions**

a. **Numerator:** The number of readmissions (for patients ages 5-18), for any cause, within 30 days of discharge from the index asthma admission (ICD-9-CM codes 493.00, 493.01, 493.10, 493.11, 493.90, 493.91). If an index admission has more than 1 readmission, only first is counted as a readmission.

b. **Denominator:** The number of admissions (for patients ages 5-18), for patients discharged from the hospital with a principal diagnosis of asthma (ICD-9-CM codes 493.00, 493.01, 493.10, 493.11, 493.90, 493.91), and with a complete claims history for the 12 months prior to admission.

7. **All–Cause: 30-Day Readmissions**

A Hospital-Wide All-Cause Unplanned Readmission Measure[294] will also be calculated as a way to provide hospitals with an overall measure of their 30-Day Readmissions rate.

a. **Numerator:** The number of inpatient admissions to any acute care facility which occurs within 30 days of the discharge date of an eligible index admission.

b. **Denominator:** The number of admissions to acute care facilities for patients aged 18 years or older.

For this measure, the following admissions are excluded:

[294] http://www.qualityforum.org/QPS/QPSTool.aspx

- Admissions for patients without 30 days of post-discharge data
  Rationale: This is necessary in order to identify the outcome (readmission) in the dataset.
- Admissions for patients lacking a complete enrollment history for the 12 months prior to admission
  Rationale: This is necessary to capture historical data for risk adjustment.
- Admissions for patients discharged against medical advice (AMA)
  Rationale: Hospital had limited opportunity to implement high quality care.
- Admissions for patients to a PPS-exempt cancer hospital
  Rationale: These hospitals care for a unique population of patients that is challenging to compare to other hospitals.
- Admissions for patients with medical treatment of cancer (See Table 3 in Section 2a1.9)
  Rationale: These admissions have a very different mortality and readmission profile than the rest of the Medicare population, and outcomes for these admissions do not correlate well with outcomes for other admissions.
  (Patients with cancer who are admitted for other diagnoses or for surgical treatment of their cancer remain in the measure).
- Admissions for primary psychiatric disease (see Table 4 in Section 2a1.9)
  Rationale: Patients admitted for psychiatric treatment are typically cared for in separate psychiatric or rehabilitation centers which are not comparable to acute care hospitals.
- Admissions for "rehabilitation care; fitting of prostheses and adjustment devices"
  Rationale: These admissions are not for acute care or to acute care hospitals.
- Additionally, in the all-payer testing, we excluded obstetric admissions because the measure was developed among patients aged 65 years or older (approximately 500,000).
- Admissions for which full data are not available or for which 30-day readmission by itself cannot reasonably be considered a signal of quality of care.

RD-3. Potentially Preventable Complications (PPCs)

Hospital performing providers subject to required Category 4 reporting must report on the 64 PPC measures listed below in DY 4-5:

- Risk-adjusted PPC rates for the 64 PPCs below. (As calculated by the 3M software.[295])

PPC #	Description
1	Stroke and Intracranial Hemorrhage
2	Extreme CNS Complications
3	Acute Pulmonary Edema and Respiratory Failure without Ventilation
4	Acute Pulmonary Edema and Respiratory Failure with Ventilation
5	Pneumonia and Other Lung Infections
6	Aspiration Pneumonia
7	Pulmonary Embolism
8	Other Pulmonary Complications

[295] For measure specifications see 3M's Users Manual.

9	Shock
10	Congestive Heart Failure
11	Acute Myocardial Infarction
12	Cardiac Arrhythmias and Conductive Disturbances
13	Other Cardiac Complications
14	Ventricular Fibrillation/Cardiac Arrest
15	Peripheral Vascular Complications except Venous Thrombosis
16	Venous Thrombosis
17	Major Gastrointestinal Complications without Transfusion or Significant Bleeding
18	Major Gastrointestinal Complications with Transfusion or Significant Bleeding
19	Major Liver Complications
20	Other Gastrointestinal Complications without Transfusion or Significant Bleeding
21	Clostridium Difficile Colitis
22	Urinary Tract Infection
23	GU Complications Except UTI
24	Renal Failure without Dialysis
25	Renal Failure with Dialysis
26	Diabetic Ketoacidosis and Coma
27	Post-Hemorrhage and Other Acute Anemia with Transfusion
28	In-Hospital Trauma and Fractures
29	Poisonings Except from Anesthesia
30	Poisonings due to Anesthesia
31	Decubitis Ulcer
32	Transfusion Incompatibility Reaction
33	Cellulitis
34	Moderate Infectious
35	Septicemia and Severe Infections
36	Acute Mental Health Changes
37	Post-Operative Infection and Deep Wound Disruption without Procedure
38	Post-Operative Infection and Deep Wound Disruption with Procedure
39	Reopening Surgical Site
40	Post-Operative Hemorrhage and Hematoma without Hemorrhage Control Procedure or I&D Procedure
41	Post-Operative Hemorrhage and Hematoma with Hemorrhage Control Procedure or I&D Procedure
42	Accidental Puncture/Laceration During Invasive Procedure
43	Accidental Cut or Hemorrhage During Other Medical Care
44	Other Surgical Complication – Mod
45	Post-procedure Foreign Bodies

46	Post-Operative Substance Reaction and Non-O.R. Procedure for Foreign Body
47	Encephalopathy
48	Other Complications of Medical Care
49	Iatrogenic Pneumothrax
50	Mechanical Complications of Device, Implant and Graft
51	Gastrointestinal Ostomy Complications
52	Inflammation and Other Complications of Devices, Implants or Grafts Except Vascular Infection
53	Infection, Inflammation and Clotting complications of Peripheral Vascular Catheters and Infusions
54	Infections Due to Central Venous Catheters
55	Obstetrical Hemorrhage without Transfusion
56	Obstetrical Hemorrhage with Transfusion
57	Obstetric Lacerations and Other Trauma Without Instrumentation
58	Obstetric Lacerations and Other Trauma With Instrumentation
59	Medical and Anesthesia Obstetric Complications
60	Major Puerperal Infection and Other Major Obstetric Complications
61	Other Complications of Obstetrical Surgical and Perineal Wounds
62	Delivery with Placental Complications
63	Post-Operative Respiratory Failure with Tracheostomy
64	Other In-Hospital Adverse Events

RD-4. Patient-centered Healthcare

1. **Patient Satisfaction**

The reporting of the measures must be limited to the inpatient setting only. All of the HCAHPS' questions included for the themes listed below are required to be included in RHP plans for PPs required to report for DY 2-5, or if HCAHPS not in place in DY 2, starting DY 3.

a. Each HCAHPS theme includes a standard set of questions. The following HCAHPS' themes will be reported on:
   - Your care from doctors;
   - Your care from nurses
   - The hospital environment;
   - when you left the hospital.

b. Data Source: HCAHPS[296]

2. **Medication management**

The reporting of the measures must be limited to the inpatient setting only. Two measures will be reported by PPs required to report Medication Reconciliation Metric (Medication reconciliation levels in discharged inpatient population derived from NQF 0646):

[296] See: http://www.cahps.ahrq.gov/cahpskit/files/309-4_CG_Reporting_Measures_4pt.pdf and http://www.hcahpsonline.org/home.aspx

a. **Numerator**: Patients or their caregiver(s) who received a reconciled medication list at the time of discharge including, at a minimum, medications in the following categories:
   - Medications to be TAKEN by patient:
     - Prescribed dosage, instructions, and intended duration must be included for each continued and new medication listed
     - CONTINUED Medications prescribed before inpatient stay that patient should continue to take after discharge, including any change in dosage or directions AND
     - NEW Medications started during inpatient stay that are to be continued after discharge and newly prescribed medications that patient should begin taking after discharge
   - Medications NOT to be Taken by patient:
     - DISCONTINUED Medications taken by patient before the inpatient stay that should be discontinued or held after discharge, AND
     - ALLERGIES AND ADVERSE REACTIONS Medications administered during the inpatient stay that caused an allergic reaction or adverse event and were therefore discontinued

b. **Denominator**: All patients, regardless of age, discharged from an inpatient facility (e.g., hospital inpatient or observation, skilled nursing facility, or rehabilitation facility) to home/self care or any other site of care. Time Window: Each time a patient is discharged from an inpatient facility

c. Data Source: Inpatient discharge diagnoses, hospital computer system, medical records, claims, registry and/or EMR (if available)

RD-5. Emergency Department

Admit decision time to ED departure time for admitted patients (NQF 0497)

a. Decision Time to transfer an emergency patient to another facility (not Transport Time), i.e. decision to make the first call from arrival in transferring ED until call initiated. Recommend threshold of < 1 hour for critical patient.

RD-6. Optional Domain: Initial Core Set of Health Care Quality Measures

Providers who participate in the optional domain must report on both of the below measure sets:

- Initial Core Set of Health Care Quality Measures for Children in Medicaid and CHIP: http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Quality-of-Care/Downloads/ChildCoreMeasures.pdf
- Initial Core Set of Health Care Quality Measures for Medicaid-Eligible Adults: http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Quality-of-Care/Downloads/AdultCoreMeasures.pdf

Appendix

CMS-Provided Key Elements for Learning Collaboratives and Continuous Quality Improvement

Learning Collaboratives – The key elements in the design of any learning collaborative include:

1. *It should review data and respond to it - with tests of new solutions and ideas - every week.*

2. *It should bring all participating sites together by phone or webinar on a weekly or bi-weekly basis to learn from one another.* All sites should share results of their testing, a breakthrough idea, and a challenge each week at the start of each call and they should leave with a public commitment to test a new idea the following week.

3. *It should set one or two quantifiable, project-level goals, with a deadline, preferably defined in terms of outcomes, related to the project's area of work.* Participants should actively manage toward this goal over the course of the work.

4. *It should invest more in learning than in teaching.* Huge proportional investments in web sites and conferences do not typically result in performance improvement or transformation of care delivery. It is more effective to get out into the field and support learning and exchange at the front lines where care is delivered.

5. *It should support a small, lightweight web site to help site share ideas and simple data over time.* The website should not be developed from scratch for the program. Rather, it should be possible to "rent" space on a portal already designed to support this kind of improvement work.

6. *It should set up simple, interim measurement systems, based on self-reported data and sampling, that can be shared at the local level and are sufficient for the purposes of improvement.*

7. *It should employ individuals (regional "innovator agents") to travel from site to site in the network to (a) rapidly answer practical questions about implementation and (b) harvest good ideas and practices that they systematically spread to others. The regional "innovator agents" should all attend the same initial training in improvement tools and skills organized by the State or RHP and should receive periodic continuing education on improvement.*

8. *It should set up face-to-face learning (meetings or seminars) at least a couple of times a year.*

9. *It should celebrate success every week.*

10. *It should mandate some improvements (simple things that everyone can do to "raise the floor" on performance) and it should unleash vanguard sites to pursue previously unseen levels ("raise the bar" on performance).*

11. *It should use metrics to measure its success such as:*
    - Rate of testing
    - Rate of spread
    - Time from idea to full implementation
    - Commitment rate (rate at which 50% of organizations take action for any specific request)
    - Number of questions asked per day
    - Network affinity/reported affection for the network

Continuous Quality Improvement:
In order to incentivize engagement in meaningful quality improvement (QI) activities that can lead to successful projects, this protocol includes optional process milestones and metrics for quality improvement activities. The process milestones and metrics for quality improvement activities listed below (which are also included as process milestone in the relevant project areas) further reflect CMS thinking on the type of QI activities that should be part of the QI core component for projects and provide direct insight into how CMS will review projects for this core element.

P-1. Quality Improvement Milestone: Participate in at least bi-weekly interactions (meetings, conference calls, or webinars) with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation should include: 1) sharing challenges and any solutions; 2) sharing results and quantitative progress on new improvements that the provider is testing; and 3) identifying a new improvement and publicly commit to testing it in the week to come.

P-1.1. Metric: Number of bi-weekly meetings, conference calls, or webinars organized by the RHP that the provider participated in.

a. Data Source: Documentation of weekly or bi-weekly phone meetings, conference calls, or webinars including agendas for phone calls, slides from webinars, and/or meeting notes.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-1.2. Metric: Share challenges and solutions successfully during this bi-weekly interaction.

a. Data Source: Catalogue of challenges, solutions, tests, and progress shared by the participating provider during each bi-weekly interaction. Could be summarized at quarterly intervals.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers to share best practices, learn how other providers have overcome similar challenges, and rapidly disseminate successful improvement ideas from other providers.

P-2. Quality Improvement Milestone: Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement.

P-2.1. Metric: Number of new ideas, practices, tools, or solutions tested by each provider.
a. Data Source: Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals
b. Rationale/Evidence: The rate of testing of new solutions and ideas is one of the greatest predictors of the success of a health care system's improvement efforts.

P-3. Quality Improvement Milestone: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements.

P-3.1. Metric: Participate in semi-annual face-to-face meetings or seminars organized by the RHP.
a. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes.
b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to "raise the floor" for performance across all providers.

P-3.2. Implement the "raise the floor" improvement initiatives established at the semiannual meeting.

a. Source: Documentation of “raise the floor” improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the “raise the floor” improvement initiative after the semiannual meeting.

b. Rationale/Evidence: Investment in learning and sharing of ideas is central to improvement. The highest quality health care systems promote continuous learning and exchange between providers and decide collectively how to “raise the floor” and “raise the bar” for performance across providers.