

## **Category 2 Improvement Projects**

**Attachment I  
Regional Healthcare Partnership (RHP) Planning Protocol**

Per the Waiver Terms and Conditions, the purpose of Category 2 Innovation and Redesign is the “piloting, testing, and spreading of innovative care models.”

RHPs serve unique populations that experience significant challenges associated with poverty, such as psychosocial barriers to health and multiple concurrent medical conditions. RHP participants have had to get very creative to address the needs of their patient populations with extremely limited resources. They need to further refine these innovations, test new ways of meeting the needs of their target populations, and disseminate their learnings to spread promising practices.

The following improvement projects as specified would be acceptable for RHPs to include in their Category 2 plans, using similar formatting as shown in the introduction.

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<u>1. Enhance/Expand Medical Homes .....</u>	<u>3</u>
<u>2. Expand Chronic Care Management Models .....</u>	<u>8</u>
<u>3. Redesign Primary Care .....</u>	<u>13</u>
<u>4. Redesign to Improve Patient Experience .....</u>	<u>17</u>
<u>5. Redesign for Cost Containment .....</u>	<u>21</u>
<u>6. Integrate Physical and Behavioral Health Care. (NOTE: Likely at least the first two Category 2 behavioral health projects will be moved to Category 1, project 11, which will be Expand Behavioral Healthcare Capacity.) .....</u>	<u>23</u>
<u>Increase Specialty Care Access/Redesign Referral Process (NOTE: To be incorporated into Category 1 Project to Expand Speciality Care) .....</u>	<u>32</u>
<u>7. Establish/Expand a Patient Care Navigation Program .....</u>	<u>36</u>
<u>8. Apply Process Improvement Methodology to Improve Quality/Efficiency (e.g., Rapid Cycle, Management Engineering, and Lean Technology) .....</u>	<u>38</u>
<u>9. Improve Patient Flow in the Emergency Department/Rapid Medical Evaluation .....</u>	<u>41</u>
<u>10. Use Palliative Care Programs .....</u>	<u>43</u>
<u>11. Conduct Medication Management .....</u>	<u>45</u>
<u>12. Implement/Expand Care Transitions Programs .....</u>	<u>48</u>
<u>13. Implement Evidence-based Health Promotion and Disease Prevention Programs .....</u>	<u>50</u>

**Deleted:** investments in new and innovative models of care delivery (e.g., Medical Homes) that have the potential to make significant, demonstrated improvements in patient experience, cost and disease management.” Therefore, Category 2 include the

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**Deleted:** DPH systems are demonstrated leaders in delivery system innovation. For the past decade, they have identified and begun implementing effective methods for improving quality, efficiency and expanding access, with a goal of containing cost growth. These efforts go well beyond the four walls of the hospital – they extend to primary and specialty outpatient clinics and urgent care centers, and in many cases encompass the entire hospital system in an effort to improve integration across all settings. ¶

**Deleted:** Appendix B: Example DSRIP Categories 1-2 Plan:

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**1. Enhance/Expand Medical Homes**

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- Project Goal: Establish a “home base” for patients, where patients have a health care team that is tailored to the patient’s health care needs, coordinates the patient’s care, and proactively provides preventive, primary, routine and chronic care, so that patients may see their health improve, rely less on costly emergency department (ED) visits, incur fewer avoidable hospital stays, and report a greater patient experience of care.
- Project **Options**:
  - Enhance medical homes
  - Establish/expand medical homes
  - Restructure staffing into multidisciplinary care teams that manage a panel of patients where providers and staff operate at the top of their license<sup>3</sup>
  - Empanel patients who would most benefit from medical homes
  - Actively manage medical home patient panels
  - The team will be responsible for contacting patients to receive their initial health assessment

• **Key Measures:**

○ **Process Measures:**

- i. Measure: Implement the medical home model in primary care clinics
  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.<sup>4</sup> In addition to reductions in ED utilization, the medical home model has helped improve the delivery and quality of primary care and reduce costs.
- ii. Measure: Put in place policies and systems to enhance patient access to the medical home
  1. Metric: **Performing Provider** policies on medical home
    - a. Documentation of **Performing Provider** policies on medical home
    - b. Data Source: **Performing Provider’s** “Policies and Procedures” documents
    - c. 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.
- iii. Measure: Reorganize staff into primary care teams responsible for the coordination of patient care
  1. Metric: Primary care team
    - a. Numerator: Number of staff organized into care teams
    - b. Denominator: Total number of staff

Deleted: <#>Related Projects:¶  
<#>Reduce Readmissions (Cat. 4)¶

Deleted: <#>Improve Screening Rates (Cat. 3)¶

Deleted: <#>Improve Diabetes Care Management and Outcomes (Cat. 4)¶  
<#>Improve Chronic Care Management and Outcomes (Cat. 4)¶  
<#>Expand Chronic Care Management Models (Cat. 2)¶  
<#>Redesign Primary Care (Cat. 2)¶  
<#>Redesign to Improve Patient Experience (Cat. 2)¶  
<#>Improve Patient/Caregiver Experience (Cat. 4)¶  
<#>Expand/Enhance Behavioral Services

Deleted: <#>Integrate Physical and Behavioral Health Care

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<#>Other¶  
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<sup>1</sup> Providers who operate at the top of their license are being maximally utilized so that (1) the overall capacity of the primary care team is optimized and (2) the patient receives optimal care from the most appropriate team member.

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<sup>4</sup> NAPH Research Brief February 2010 *Safety Net Medical Homes Establish “Medical Homes”*

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- c. 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.<sup>5</sup> It is clear that primary care physicians in the 15-minute visit can no longer do what their patients expect and deserve.”
- iv. Measure: Expand and redefine the roles and responsibilities of primary care team members
  - 1. Metric: Expanded primary care team member roles
    - a. Documentation of roles/responsibilities
    - b. Data Source: Revised job descriptions and documentation of established orientation and internal trainings for expanded roles and responsibilities beyond the basic education programs completed prior to hire.
    - c. 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.<sup>7</sup> It is clear that primary care physicians in the 15-minute visit can no longer do what their patients expect and deserve.” 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.”<sup>9</sup>

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<sup>5</sup> 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 care?” Annals of Family Medicine 2005; 3:209-14.

<sup>7</sup> 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 care?” Annals of Family Medicine 2005; 3:209-14.

<sup>9</sup> 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.

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- v. Measure: Determine the appropriate panel size<sup>10</sup> for primary care provider teams, potentially based on staff capacity, demographics, and diseases
1. Metric: Panel size
- a. 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.
- b. Data Source: Patient panel by provider, registry, or EHR
- c. Rationale/Evidence: Panel size analysis could support panel management decisions as clinics approach population management.<sup>11</sup> “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.”<sup>12</sup>
- vi. Measure: Establish criteria for medical home assignment
1. Metric: Medical home assignment criteria
- a. Submission of medical home assignment criteria, such as patients with specified chronic conditions;<sup>13</sup> patients who have had multiple visits to a clinic; high-risk patients; patients needing care management; high utilizers of health care services;<sup>14</sup> and patients with particular socio-economic, linguistic, and physical needs<sup>15</sup>
- b. Data Source: 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 utilizers 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

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<sup>10</sup> 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.

<sup>11</sup> *Safety Net Medical Home Initiative*. Coleman CF, Phillips KE, eds. Empanelment Implementation Guide: Establishing Patient-Provider Relationships. 1<sup>st</sup> ed. Seattle, WA: The MacColl Institute for Healthcare Innovation at the Group Health Research Institute and Qualis Health, March 2010.

<sup>12</sup> *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.

<sup>13</sup> Such as: Diabetes, hypertension, chronic heart failure, obesity, asthma, post-secondary stroke, community-acquired pneumonia (CAP), HIV/AIDS, chronic pain, and depression.

<sup>14</sup> Such as patients who have presented in the ED, been admitted to the hospital, or visited specialty clinics multiple times.

<sup>15</sup> Such as seniors and persons with disabilities, homeless people, and immigrants.

<sup>16</sup> 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.

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- patients who utilized the hospital's medical home resulted in an 80% decrease in hospitalizations and ED visits for the intervention group.<sup>17</sup>
- vii. Measure: Track the assignment of patients to the designated care team
    - 1. Metric: Tracking medical home patients
      - a. Submission of tracking report
      - b. Data Source: Can be tracked through the practice management system, EHR, or other documentation as designated by [Performing Provider](#)
      - c. 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).
  - viii. Measure: Develop training materials for medical homes
  - ix. Measure: Train medical home personnel
    - 1. Metric: Number of medical home personnel trained
    - 2. Data Source: HR documents
  - x. Measure: 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
    - 1. Metric: Documentation of interaction types and expansion of use
  - xi. Measure: Implement a system to improve prevention services (must select at least one metric):
    - 1. Metric: Implement paper-based or electronic tool to measure prevention services
    - 2. Metric: Implement a system/processes for targeted prevention services
    - 3. Metric: Develop prevention services education management and outreach program
  - o **Improvement Measures:**
    - i. Measure: Based on criteria, assign eligible patients<sup>18</sup> to medical homes
      - 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
    - ii. Measure: New patients assigned to medical homes receive their first appointment in a timely manner
      - 1. Metric: 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

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<sup>18</sup> 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.

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- 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.
  - iii. Measure: Patient access to medical home
    - 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. 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 five 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 cite this metric.
    - iv. Measure: 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
      - 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.
      - v. Measure: Increase number or percent of enrolled patients' scheduled primary care visits that are at their medical home
        - 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.
        - vi. Measure: Medical home provides population health management by identifying and reaching out to patients who need to be brought in for preventive and ongoing care
          - 1. Metric: Patient appointment reminders
            - a. Numerator: For select specific preventive service (e.g., pneumococcal vaccine for diabetics), the number of patients in

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- 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 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
- vii. Measure: Obtain medical home recognition by a nationally recognized agency (e.g., NCQA)
1. Metric: Medical home recognition/accreditation
    - a. Documentation of recognition/accreditation
    - b. Data Source: Nationally recognized agency (e.g., NCQA)
  2. Rationale/Evidence: Currently, there is no single medical home recognition body that has taken into account an updated definition for the medical home that includes safety net clinics/practices, but likely in the near future, there may be one. At that point, it will become important to validate the medical home service being provided by seeking and receiving recognition/accreditation.

2. Expand Chronic Care Management Models<sup>19</sup>

- Project Goal: Patients with chronic conditions receive proactive, ongoing care that keeps patients healthy and empowers patients to self-manage their conditions in order to avoid their health worsening and needing ED or inpatient care.
- Project **Options**:
  - Redesign the outpatient delivery system to coordinate care for patients with chronic diseases
  - The composition of care teams is 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
  - Patients can access their care teams in person or by phone or email
  - Increase patient engagement, such as through patient education, group visits, self-management support, improved patient-provider communication techniques, and coordination with community resources
  - Empower patients to make lifestyle changes to stay healthy and self-manage their chronic conditions
  - Apply a care management model to patients identified as having high-risk health care needs

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<sup>19</sup> 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.

**Deleted:** Please see [Appendix A](#) below for a summary description of the chronic Care Model.

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- Redesign rehabilitation delivery models for persons with disabilities
- Develop a continuum of care in the community for persons with serious and persistent mental illness and co-occurring disorders
- Develop care management functions that integrate the primary and behavioral health needs of individuals

- Key Measures:

- **Process Measures:**

- i. Measure: Expand the Care Model to primary care clinics

- 1. Metric: Increase number of primary care clinics using Care model

- a. Numerator: Number of primary care clinics using 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.<sup>20</sup> 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.<sup>21</sup> 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).<sup>22</sup>

- ii. Measure: Train staff in the Care Model, including the essential components of a delivery system that supports high-quality clinical and chronic disease care

- 1. Metric: Increase number or percent of staff trained

- a. Numerator: Number or percent of relevant staff trained in the 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.<sup>23</sup> 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

**Deleted:** Related Projects:¶  
 Improve Chronic Care Management and Outcomes (Cat. 4)¶  
 Improve Diabetes Care Management and Outcomes (Cat. 4)¶  
 Improve Screening Rates (Cat. 3)¶  
 Reduce Readmissions (Cat. 4)¶  
 Expand Medical Homes (Cat. 2)¶  
 Redesign to Improve Patient Experience (Cat. 2)¶  
 Improve Patient/Caregiver Experience (Cat. 4)¶  
 Redesign for Cost Containment (Cat. 2)¶  
 Expand/Enhance Behavioral Health Systems/Integrate Physical and Behavioral Health Care (Cat. 12)¶  
 Other¶

<sup>20</sup> Source: IHI website. Please see <http://www.ihi.org/IHI/Topics/ChronicConditions/AllConditions/Changes/> for more information.

<sup>21</sup> Renders et al, Diabetes Care, 2001; 24:1821 and Bodenheimer, Wagner, Grumbach, JAMA 2002; 288:1910.

<sup>22</sup> Tsai AC, Morton SC, Mangione CM, Keeler EB. *Am J Manag Care*. 2005 Aug;11(8):478-88.

<sup>23</sup> Source: IHI website. Please see <http://www.ihi.org/IHI/Topics/ChronicConditions/AllConditions/Changes/> for more information.

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- iii. Measure: Develop a comprehensive care management program
  - 1. Metric: Care management program
    - a. Documentation of program
    - b. Data Source: Program materials
- iv. Measure: Formalize multi-disciplinary teams
  - 1. Metric: 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 over baseline
    - 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.<sup>27</sup> 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.
- v. Measure: Implement a risk-reduction program for patients with diabetes mellitus to target patients identified as at-risk (e.g., an inpatient or perioperative glycemic control program; if implementing more than one program, may include as two separate milestones)
  - 1. Metric: Implementation of diabetes risk-reduction program
    - a. Documentation of program
    - b. Data Source: Program materials
- vi. Measure: Implement redesign of Rehabilitation delivery model that may include the following elements: patient-centered daily interdisciplinary rounds in acute rehabilitation, self-directed task-specific motor practice opportunities in acute

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<sup>24</sup> Renders et al, *Diabetes Care*, 2001; 24:1821 and Bodenheimer, Wagner, Grumbach, *JAMA* 2002; 288:1910.

<sup>25</sup> Tsai AC, Morton SC, Mangione CM, Keeler EB. *Am J Manag Care*. 2005 Aug. 11(8):478-88.

<sup>26</sup> Please see the IHI website for more information:

<http://www.ihi.org/IHI/Topics/OfficePractices/PlannedCare/ImprovementStories/InnovationsinPlannedCareataCherokeeNationClinic.htm>

<sup>27</sup> 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.

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rehabilitation setting, therapeutic practice for greater than three hours per day, 5-6 days per week to drive recovery, patient-centered interdisciplinary documentation, peer-delivered wellness programs, and/or home- and community-focused rehabilitation.

1. Metric: Redesigned Rehabilitation delivery model
    - a. Documentation of program elements
    - b. Data Source: Program materials
  - vii. Measure: Develop Stroke Medical Home
    1. Metric: Establish group clinics for individuals with stroke/Transient Ischemic Attack (TIA)
      - a. Numerator: Number of individuals with history of stroke/TIA in past 1 year enrolled in group clinic
      - b. Denominator: Number of individuals with history of stroke/TIA in past year
  - viii. Measure: Pilot pharmacy-driven anticoagulation project
    1. Metric: Number or percent of patients who have been monitored for at least one month without a face-to-face visit
  - ix. Measure: Implement a test-ordering process for patients with cardiovascular risk factors, including indicators such as blood sugar level, cholesterol, liver and renal monitoring
    1. Metric: Increase the rate that these tests are ordered outside an office visit
  - x. Measure: Train appropriate staff on evidence-based clinical protocols
    1. Metric: Documentation of training of staff on evidence-based protocols
  - xi. Measure: Evaluate and improve process for clinical protocol development
    1. Metric: Documentation of evaluation and improvement of process for clinical protocol development
  - xii. Measure: Implement evidence-based clinical protocols
    1. Metric: Documentation of evidence-based clinical protocol
  - xiii. Measure: Develop program to identify and manage chronic care patients needing further clinical intervention
    1. Metric: Documentation of program to identify patients needing screening test, preventative tests, or other clinical services
  - xiv. Measure: 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
    1. Metric: Documentation of interaction types and expansion of use
  - xv. Measure: Develop and implement program to assist patient to better self-manage their chronic conditions
    1. Metric: Documentation of patient self-management program
  - xvi. Measure: Develop and implement plan for standing orders (i.e., lab orders for chronic conditions)
    1. Metric: Documentation of plan for standing orders
  - xvii. Measure: Develop and implement program for diabetes care managers to support primary care clinics
    1. Metric: Documentation and implementation of plan for diabetic care manager support for primary care clinics
  - xviii. Measure: Implement a diabetes medication titration program that is supported by pharmacy
    1. Metric: Documentation of program implemented
- o **Improvement Measures:**
- i. Measure: Apply the Care Model to targeted chronic diseases, which are prevalent locally

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- a. Metric: Number of targeted chronic diseases
  - i. Name the chronic disease included
  - ii. Data Source: Registry
  - iii. 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).<sup>28</sup>
- ii. Measure: Improve the percentage of patients with self-management goals<sup>29</sup>
  - a. Metric: Patients with self-management goals
    - i. Numerator: The number of patients with the specified chronic condition in the registry with at least one recorded self-management goal
    - ii. Denominator: Total number of patients with the specified chronic condition in the registry
    - iii. Data Source: Registry
    - iv. 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.”<sup>30</sup>
- iii. Measure: Implement Stroke Medical Home (must include at least one of the following metrics):
  - a. Metric: Antiplatelet medication for secondary stroke prevention

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<sup>28</sup> Tsai AC, Morton SC, Mangione CM, Keeler EB. *Am J Manag Care*. 2005 Aug. 11(8):478-88.

<sup>29</sup> 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.

<sup>30</sup> Bodenheimer, T., Lorig, K., Holman, H., Grumbach, K., “Patient Self-management of Chronic Disease in Primary Care,” *JAMA* (May 15, 2008).

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- i. 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
    - ii. Denominator: Number of individuals with history/completed stroke and/or TIA
  - b. Metric: Blood pressure control among individuals with history of/a completed stroke and/or TIA
    - i. Numerator: Number of individuals with history of/a completed stroke and/or TIA in past year who have BP < 120/80
    - ii. Denominator: Number of individuals with history of/a completed stroke and/or TIA in past year
  - c. Metric: Exercise
    - i. Numerator: Number of individuals with history of stroke/TIA in past year who exercise at least 150 minutes per week
    - ii. Denominator: Number of individuals with history of stroke/TIA in past year
- iv. Measure: Redesign Rehabilitation Delivery Model (must include at least one of the following metrics):
  - a. Metric: Reduce acute inpatient rehabilitation (case-mix adjusted) length of stay (LOS)
    - i. Numerator: Case mix adjusted length of stay
    - ii. Denominator: Baseline Case mix adjusted length of stay
  - b. Metric: Maintain or Improve (case-mix adjusted) 3-month Functional Independence Measure (FIM) Follow-up scores
    - i. Numerator: 3-month FIM follow up scores
    - ii. Denominator: Baseline FIM follow up scores
- v. Measure: Number of patient touches recorded in the registry
  - a. Metric: Total number of in-person and virtual (including email and web-based) visits, either absolute or divided by denominator
    - i. Numerator: Number of patient touches recorded in the registry
    - ii. Denominator: Number of targeted patients in the registry (“targeted” as defined by [Performing Provider](#))

**3. Redesign Primary Care**

- Project Goal: Increase efficiency and redesign clinic visits to be oriented around the patient so that primary care access and the patient experience can be improved.
- Project **Options**:
  - Implement the patient-centered scheduling model<sup>31</sup> in primary care clinics
  - Implement patient visit redesign<sup>32</sup>
  - Achieve improvements in efficiency, access, continuity of care, and patient experience
- Key Measures:
  - **Process Measures:**

**Deleted:** Related Projects:¶  
 Improve Screening Rates (Cat. 3)¶  
 Improve Diabetes Care Management and Outcomes (Cat. 4)¶  
 Improve Chronic Care Management and Outcomes (Cat. 4)¶  
 Expand Medical Homes (Cat. 2)¶  
 Expand Chronic Care Management Models (Cat. 2)¶  
 Redesign to Improve Patient Experience (Cat. 2)¶  
 Improve Patient/Caregiver Experience (Cat. 4)¶  
 Other¶

<sup>31</sup> See [http://patientvisitredesign.com/techniques/advanced\\_model.html](http://patientvisitredesign.com/techniques/advanced_model.html) for the full principles of Coleman Associates’ Patient Visit Redesign; and [http://patientvisitredesign.com/coleman\\_associates/pcs\\_program.html](http://patientvisitredesign.com/coleman_associates/pcs_program.html) for detailed information about the Patient-Centered Scheduling model.

<sup>32</sup> Ibid.

**Deleted:** <sup>31</sup> Please see Appendix A below for a summary description

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- i. Measure: Establish baseline data for patient appointment ‘no-show’ rates, days to third-next available appointment, and/or primary care visit cycle times<sup>33</sup>
- ii. Measure: Implement the patient-centered scheduling model in primary care clinics
  - a. 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
    - i. Numerator: Number of primary care clinics that have fully implemented the model
    - ii. Denominator: Total number of primary care clinics
    - iii. Data Source: Program materials or other [Performing Provider](#) sources
    - iv. 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.
- iii. Measure: Implement open access scheduling in primary care clinics
  - a. Metric: Open access scheduling
    - i. Numerator: Number of primary care clinics that have fully implemented open access scheduling
    - ii. Denominator: Total number of primary care clinics
    - iii. Data Source: Scheduling materials or other [Performing Provider](#) sources

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<sup>33</sup> Please see following pages for the metric specifications.

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- iv. 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.
- iv. Measure: Implement patient visit redesign in primary care clinics
  - a. 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
    - i. Numerator: Number of primary care clinics that have fully implemented the model
    - ii. Denominator: Total number of primary care clinics
    - iii. Data Source: Documentation from [Performing Provider](#)
    - iv. 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.
- v. Measure: Train staff on methods for redesigning clinics to improve efficiency
  - a. Metric: Number or proportion of staff trained
    - i. Numerator: Number of relevant primary care clinic staff trained
    - ii. Denominator: Total number of relevant primary care clinic staff
    - iii. Data Source: HR, training program materials
- vi. Measure: Implement practice management system
  - a. Metric: Documentation of practice management system, such as vendor contract
    - i. 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
- vii. Measure: Establish mechanism for patient self-enrollment in on-line patient portal for access to their health record and bi-directional communication
  - a. Metric: Documentation of system being established
- viii. Measure: Develop a marketing system to encourage patient enrollment
  - a. Metric: Documentation of marketing strategy
- ix. Measure: Develop/implement a system for protocol driven automatic patient reminders (must select at least one metric):
  - a. Metric: Document system and processes to implement
  - b. Metric: Documentation of automated process
- x. Measure: Develop protocols for breast, colon, and prostate screening
  - a. Metric: Documentation of system, process to implement screening

**Deleted:** For California’s public hospitals, PVR (done in combination with the Institute for Healthcare Improvement’s Breakthrough Series Collaborative model for rapid improvement) decreased the amount of waiting time patients experience (cycle time) and increase the number of patients providers see per hour (provider productivity). Through this process, public hospital teams developed and tested strategies to redesign the patient visit in their clinics. Four didactic and interactive learning sessions were conducted, and in between sessions teams tested their models and collected data to track their progress. With support from private foundation grants, 48 public hospital clinic teams improved their patient visit processes through formal a program with the California Health Care Safety Net Institute. From 2005 through 2008, these clinics (which represent 13 public hospital systems) reduced their cycle times by 45% with the average visit being completed in less than an hour, and increased provider productivity. While the initial cycle times and productivity have slipped slightly since the completion of the program, the majority of clinics still continue to maintain the improvements and spread the model throughout their systems.

o **Improvement Measures:**

- i. Measure: Reduce patient appointment no-show rates to X% or less
  - a. Metric: No-show rate (The percentage of patients with appointments booked prior to the actual day of clinic who did not show up for their scheduled visit. This excludes same-day appointments and appointments cancelled by patient according to organizational definition for cancel).

**Deleted:** 10

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- i. Numerator: Number of patients who missed an appointment in a medical home session
  - ii. Denominator: Number of patients scheduled for each session
  - iii. Data Source: Use practice management system to calculate daily for each provider in clinic
  - iv. 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.
- ii. Measure: Reduce third next available appointment times in primary care clinics to fewer than X calendar days
  - a. Metric: Third Next-Available Appointment
    - i. 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.
    - ii. Data Source: Practice management or scheduling systems
    - iii. 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.
- iii. Measure: Reduce average visit cycle time<sup>34</sup> for primary care clinics to 60 minutes or less – without reducing the time a patient spends with his/her provider
  - a. Metric: Visit cycle time
    - i. The time from when the patient enters the clinic or clinical area to when he/she exits in minutes.
    - ii. Data Source: Practice management or scheduling systems or another [Performing Provider](#) data source
    - iii. Rationale/Evidence: A lower cycle time indicates a more streamlined process with fewer handoffs and delays.
- iv. Measure: Improve productivity of team
  - a. Metric: Team Productivity
    - i. Number of patient visits completed divided by the time it took to see those patients from start up to wrap up, including charting and relevant chart work.
    - ii. Data Source: Practice management or scheduling systems or another [Performing Provider](#) data source
    - iii. Rationale/Evidence: Higher productivity indicates that work surrounding each visit has been engineered to be more efficient and is executed by a team of staff, not just the provider.
- v. Measure: Patient self-enrollment in on-line patient portal for access to their health record and bi-directional communication
  - a. Metric: Percent of primary care patients enrolled in on-line program

**Deleted:** Measure: Improve patient satisfaction score (this measure may be moved to Category 3, pending the finalization of Category 3) Metric: Patient satisfaction score Improved patient satisfaction score over baseline, as measured by survey of patients accessing primary care Data Source: Patient satisfaction score Rationale/Evidence: With increased access to primary care, that is also redesigned around the patient, patient satisfaction may be positively impacted.

<sup>34</sup> 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.

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4. Redesign to Improve Patient Experience

- Project Goal: Improve how the patient experiences the care and the patient’s satisfaction with the care provided.
- Potential Project Elements:
  - Organizational integration and prioritization of patient experience<sup>35</sup>
  - Data and performance measurement (to include HCAHPS/CAHPS and/or other systems and methodologies to measure patient experience)
  - Implementing improvements
- Key Measures:
  - **Process Measures:**
    - i. Measure: Appoint an executive accountable for experience performance or create a percentage of time in existing executive position for experience performance
      - 1. Metric: An executive accountable for experience is in place
        - a. Data Source: Org Chart or job description (if percentage of time)
        - b. Rationale/Evidence: The organizational culture that creates positive patient experience must be driven from the very top of the organization.<sup>36</sup> Depending upon the organization, one executive could be accountable for both patient and employee experience, or two separate executives could be appointed.
    - ii. Measure: Write and disseminate a patient/family experience strategic plan
      - 1. Metric: Strategic plan written and disseminated widely throughout the organization
        - a. Submission of strategic plan
        - b. Data Source: Internal organizational communications, experience strategic plan
        - c. 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.
    - iii. Measure: Include experience vision and objectives into organizational strategy
      - 1. Metric: Top organizational strategies contain explicit references to patient experience
        - a. Submission of strategic plan
        - b. Data Source: Organizational strategic plan
        - c. Rationale/Evidence: Having patient experience referenced in the top document that governs the operations of the organization will, along with other measures here, solidify the organizational commitment to high performance in this area.
    - iv. Measure: Establish a steering committee comprised of organizational leaders, employees and patients/families to implement and coordinate improvements in patient and/or employee experience
      - 1. Metric: A steering committee in place and meets at least bi-monthly
        - a. Documentation of committee proceedings

Deleted: <#>Related Projects:¶  
<#>All Categories 1-4  
Projects/Interventions¶  
¶

<sup>35</sup> (1) “Patient experience” is being used as the term that is also inclusive of the experience of patients’ families; and (2) “employee experience” is being used as the term that is inclusive of staff and providers.

<sup>36</sup> 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.

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- b. Data Source: Meeting minutes, agendas, participant lists, and/or list of steering committee members
      - c. 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.
  - v. Measure: Integrate patient experience into employee training
    - 1. Metric: Include patient experience content in new employee orientation and other organizational learning opportunities
      - a. Documentation of training materials
      - b. Data Source: Course/training curricula
      - c. 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.
  - vi. Measure: Integrate patient and/or employee experience into management performance measures
    - 1. Metric: Include specific patient and/or employee experience objectives into management work plans and measures of performance.
      - a. Data Source: Division/unit/department workplans
      - b. Rationale/Evidence: Accountability for experience performance must be spread throughout the organization. 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.
  - vii. Measure: Integrate patient and/or employee experience into employee performance measures
    - 1. Metric: Include specific patient and/or employee experience objectives into employee job descriptions and work plans. Hold employees accountable for meeting them.
      - a. Data Source: Job descriptions, staff performance metrics
      - b. Rationale: Each employee should have clear performance expectations as related to patient experience.
  - viii. Measure: Assess the organizational baseline for measuring patient/family and/or employee experience and utilizing results in quality improvement
    - 1. Metric: Assessment, including 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.
  - ix. Measure: Develop new methods of inquiry into patient and/or employee satisfaction, or improve the existing ones, to achieve greater quality and consistency of data
    - 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

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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;<sup>37</sup> implement a survey of employee experience<sup>38</sup>; Roll out a pilot of real-time electronic methodology for capturing patients' feedback during the process of care;<sup>39</sup> 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.

Deleted: the typical public hospital

- x. Measure: 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
  - 1. Metric: Patient experience implementation/expansion plan
    - a. Submission of plan
    - b. Data Source: Plan
    - c. 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.
- xi. Measure: Administer regular inquiry into patient experience in the new organization or organizational area
  - 1. Metric: Inquiry at regular intervals using methodologies such as: Written surveys, Phone interviews; Focus groups; Care experience flow mapping;<sup>40</sup> Real-time electronic methodology for capturing patients' feedback during the process of care;<sup>41</sup> and/or another innovative method for obtaining patient experience information
    - a. Documentation of inquiry
    - b. Data Source: TBD by Performing Provider, depending on the methodology selected for patient experience inquiry
    - c. 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).

<sup>37</sup> 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>

<sup>38</sup> For example, see NRC Picker Employee Experience Surveys, available here <http://nrcpicker.com/default2.aspx?DN=1671,3,1,Documents>

<sup>39</sup> For example, TruthPoint, available here <http://www.truth-point.com/truthpoint>

<sup>40</sup> 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>

<sup>41</sup> For example, TruthPoint, available here <http://www.truth-point.com/truthpoint>

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- xii. Measure: 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.)
  - 1. Metric: Workgroups are formed under the steering committee to work on experience targets. Detailed implementation plans are created for each workgroup
    - a. Data Source: Implementation plans
    - b. Rationale/Evidence: An organizational structure is needed to perform the improvement work around patient and/or employee experience.
- xiii. Measure: Develop and implement organizational strategies to improve patient, family, and/or employee experience
  - 1. Metric: Implement and sustain at least one organizational strategy per year aimed at improving patient, family, and/or employee experience. Examples include involving patients/families as partners in organizational quality improvement, development, and/or governance;<sup>42</sup> enhancing nurse-nurse and nurse-patient/family communication;<sup>43</sup> 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;<sup>44</sup> 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<sup>45</sup>
    - 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.
- xiv. Measure: Perform a mid-course evaluation of the results of improvement projects / Make necessary adjustments and continue with implementation
  - 1. Metric: Evaluation performed, following the suggested structure of the baseline assessment, above
    - a. Submission of evaluation
    - b. Data Source: Evaluation write-up
    - c. Rationale/Evidence: It is an integral part of performance improvement to periodically review success of the efforts.
- xv. Measure: Develop, implement, and/or enhance a patient experience survey tool
  - 1. Metric: Patient experience survey tool
    - a. Submission of tool
    - b. Data Source: Survey tool
- xvi. Measure: Develop a training program on patient experience
  - 1. Metric: Training program materials

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<sup>42</sup> For example, include patients/families into organizational efficiency projects such as LEAN, or develop an advisory council of patients and families

<sup>43</sup> For example, “Nurse Knowledge Exchange”, available here

<http://www.innovations.ahrq.gov/content.aspx?id=1803>

<sup>44</sup> More information available here <http://alwaysevents.pickerinstitute.org/>

<sup>45</sup> For example, Evidence Based Leadership by Studer Group, available here <http://www.studergroup.com/dotCMS/knowledgeAssetDetail?inode=411208>

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- a. Submission of program materials
- xvii. Measure: Train number or percent of providers/clinicians/staff
  - 1. Metric: Number or percent of staff trained
    - a. Numerator: Number of staff trained
    - b. Denominator: Total number of relevant staff
    - c. Data Source: HR documents or training program records
- o **Improvement Measures:**
  - i. Measure: Improve patient satisfaction/experience scores
    - a. Metric: Improve patient satisfaction scores
      - i. Percent improvement of patient satisfaction scores over baseline
      - ii. Data Source: Patient satisfaction/experience survey and/or CMS Medicare Hospital Quality Initiative Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores
      - iii. Rationale/Evidence: Improvement in experience scores will be the ultimate measure of success of improvement efforts.
  - ii. Measure: Improve employee experience scores
    - a. Metric: Improve scores on a consistently administered measure of employee experience
  - iii. Measure: 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
    - a. Metric: Demonstrated at least one organization-wide display (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.
      - i. Data Source: Display and internal communication
      - ii. Rationale/Evidence: Keeping the workforce informed on the progress of improvement efforts is key to developing an organization-wide ownership of the efforts.
  - iv. Measure: 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
    - a. Metric: Demonstrate at least one external communication per year aimed at the general public's understanding of the organization's results and improvement efforts in the area of patient and/or employee experience.
      - i. Data Source: External communication
      - ii. 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.

**Deleted:** (this measure may be moved to Category 3, pending the finalization of Category 3)

5. Redesign for Cost Containment

- Project Goal: Develop the capability to test methodologies for measuring cost containment that may be applied to other projects or efforts so that the ability to measure the efficacy of these initiatives is in place, including so integrated care models can be developed that use data-based cost and quality measures.

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- Project **Options:**
  - Implement cost-accounting systems to measure intervention impacts
  - Establish a method to measure cost containment
  - Establish a baseline for cost
  - Measure cost containment
  - Develop an integrated care model with outcome-based payments
- Key Measures:
  - **Process Measures:**
    - i. Measure: Review current cost allocation and accounting system capabilities and select a system/methodology that will allow for cost measurement
    - ii. Measure: Implement cost-accounting systems to measure intervention impacts
      - a. Metric: Cost-accounting system
        - i. Documentation of adoption, installation, upgrade and/or interface of technology, and/or implementation of system using existing technology
        - ii. Data Source: Cost-accounting system
        - iii. 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).
    - iii. Measure: Develop/identify a cost-accounting methodology to quantify the financial impact of quality and efficiency improvement interventions
      - a. Metric: Cost-accounting methodology/metric
        - i. 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)
        - ii. Data Source: Cost-accounting system or another administrative, financial or clinical data set
        - iii. 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.
    - iv. Measure: Establish a baseline for cost
      - a. Metric: Establish a baseline for cost
        - i. Submission of baseline data
        - ii. Data Source: Cost-accounting system or another administrative, financial, or clinical data set
        - iii. 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.
    - v. Train Finance staff on costing methodologies and define, develop, and document methodologies with departments for allocation of costs to specific services
    - vi. Measures, metrics, and data sources for developing an integrated care model with outcome-based payments, to be determined in conjunction with CMS
  - **Improvement Measures:**

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<#>Related Projects:¶  
<#>Potentially all Categories 3-4  
Projects/Interventions¶  
<#>Other¶

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- i. Measure: Measure cost containment
  - a. Metric: TBD by Performing Provider
    - i. Numerator: TBD by Performing Provider
    - ii. Denominator: TBD by Performing Provider
    - iii. Data Source: TBD by Performing Provider
    - iv. 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.
- 2. Measures, metrics, and data for developing an integrated care model with outcome-based payments, to be determined in conjunction with CMS

6. Integrate Physical and Behavioral Health Care. (NOTE: Likely at least the first two Category 2 behavioral health projects will be moved to Category 1, project 11, which will be Expand Behavioral Healthcare Capacity.)

- Project Goal: Expand the capacity of behavioral health services to better meet the needs of the patient population and community so that care can be better coordinated and the patient can be treated as a whole person, potentially leading to better outcomes and experience of care.
- Project Options:
  - Expand and enhance the capacity of behavioral health to better meet the needs of the population.
  - Increase training of behavioral health workforce including professionals, paraprofessionals, peer-to-peer, and volunteers.
  - Develop individual care management strategies to improve care access and coordination.
  - Implement physical-behavioral health integration pilots
  - Train primary care providers in behavioral health care
  - Better identify patients needing behavioral health care
  - Improve coordination and referral patterns between primary care and behavioral health
  - Link patients with serious mental illnesses to a medical home or another care management program
  - Implement and enhance discharge and post-discharge support interventions for behavioral health, including substance abuse disorder interventions.
  - Provide early intervention or intensive wraparound services and supports for a targeted behavioral health population, including people with co-occurring disorders, to reduce unnecessary use of more expensive services in a specified setting.
  - Assess and develop a long-term crisis intervention and stabilization services capability to improve access to behavioral health care in the most appropriate, cost-effective setting

**Deleted:** Category 1, project 11

**Deleted:** Integrate the inter-related components of physical and behavioral health care

- Key Measures:
  - **Process Measures:**
    - i. Measure: Expand behavioral health/substance abuse care training.
      - 1. Metric: Expand psychiatry residency, mid-level (e.g., Licensed Clinical Social Worker), paraprofessional, peer-to-peer and voluntary training programs, internships or rotations, as applicable.
        - a. Documentation of applications and agreements to expand training programs.
        - b. Data Source: Training program documentation.
        - c. Rationale/Evidence: Increasing behavioral health providers and counselors may help address the behavioral health workforce shortage.

**Deleted:** Related Projects:¶  
 Reduce Readmissions (Cat. 4)¶  
 Improve Quality (Cat. 4)¶  
 Reduce Disparities (Cat. 4)¶  
 Improve Screening Rates (Cat. 2)¶  
 Improve Diabetes Care Management and Outcomes (Cat. 4)¶  
 Improve Chronic Care Management and Outcomes (Cat. 4)¶  
 Expand Medical Homes (Cat. 2)¶  
 Expand Chronic Care Management Models (Cat. 2)¶  
 Redesign Primary Care (Cat. 2)¶  
 Redesign to Improve Patient Experience (Cat. 2)¶  
 Improve Patient/Caregiver Experience (Cat. 4)¶  
 Other¶

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- ii. Measure: Educate and/or train primary care clinicians in behavioral health care
  - 1. Metric: Training in behavioral health care (may include training to screen paneled patients for depression at appropriate interval and to initiate indicated treatment)
    - a. Submission of curriculum or other educational materials
    - b. Data Source: Training program materials
    - c. Rationale/Evidence: Mental health and substance abuse issues are extremely common in safety net populations, and either account for or influence a very high percentage of primary care visits (Bureau of Primary Health Care, 2004). The vast majority of patients with behavioral health problems are managed by primary care providers without behavioral health specialty care, either because the patient doesn't meet entry criteria into the mental health system (generally limited to the severely and persistently mentally ill) or because the patient refuses behavioral health specialty care (often because of the stigma attached to such care) (Cunningham, 2009). Many primary care providers feel poorly equipped to handle significant behavioral health issues by themselves. Behavioral health patients have significant chronic physical health conditions (Institute of Medicine, 2005) which often go untreated, and these patients suffer increased morbidity, poorer quality of life, and significantly earlier mortality than patients without behavioral health diagnoses (Olfson, Sing, and Schlesinger, 1999).
- iii. Measure: Assess demand and capacity for locating behavioral health services in primary care clinics
  - 1. Metric: Demand assessment
    - a. Submission of assessment findings
    - b. Data Source: Assessment
    - c. Rationale/Evidence: The same psychosocial factors which complicate the health care of safety net populations affect both behavioral health and physical health patients (poverty, poor health literacy, limited English proficiency, homelessness, poor sense of self efficacy, chaotic lives, at-risk minority status, etc.)
- iv. Measure: Implement physical-behavioral health integration pilots, such as implementing the IMPACT Model<sup>46</sup> and/or Four Quadrant Model<sup>47</sup>
  - 1. Metric: Implement the model (may include a model listed below or an alternative model as designated by the **Performing Provider**):
    - a. IMPACT Model: Compliance with implementing the five essential components: (1) Collaborative care is the cornerstone of the IMPACT model and functions in two main ways; (2) Depression Care Manager;

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<sup>46</sup> Excerpted from the IMPACT website at the University of Washington at <http://impact-uw.org/about/key.html>.

<sup>47</sup> The Four Quadrant model is a model for the proposed integration of clinical mental health and behavioral health services. The emphasis is on the prevalence of concurrent disorders (e.g., depression and alcoholism). The Four Quadrant model is based on the 1998 consensus document on mental health and substance abuse/addiction integration service. The severity for each disorder is divided into Four Quadrants: (1) Low mental health – low substance abuse, served in primary care; (2) High mental health – low substance abuse, served in the mental health system by staff who have substance abuse competency; (3) Low mental health – high substance abuse, served in the substance abuse system by staff who have mental health competency; and (4) High mental health – high substance abuse, served by a fully integrated mental health and substance abuse program. 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.

**Deleted:** Also, please reference the document titled, *Evidence-Based Models Implemented by DPH Systems to Enhance Quality, Promote Coordinated Care, Build Medical Homes and Ensure Access*, which was provided to CMS by the California Health Care Safety Net Institute on November 29, 2010.

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- (3) Designated Psychiatrist; (4) Outcome measurement; and (5) Stepped care
- b. Four Quadrant Model: The Four Quadrant model is based on the 1998 consensus document on mental health and substance abuse/addiction integration service. The severity for each disorder is divided into Four Quadrants: 1) Low mental health-low substance abuse, served in primary care; 2) High mental health-low substance abuse, served in the mental health system by staff who have substance abuse competency; 3) Low mental health-high substance abuse, served in the substance abuse system by staff who have mental health competency; and 4) High mental health-high substance abuse, served by fully integrated mental health and substance abuse program.
- c. Data Source: Documentation of workplans, processes, roles/responsibilities, program descriptions, and/or other materials from the pilot
- d. Rationale/Evidence: Recent studies show that integration of behavioral health (mental health and substance abuse) and physical health services should be the standard for advanced health care systems. This finding is part of a larger trend to better integrate the various parts of a health care system in the interest of more cost-effective and comprehensive patient care. The more integrated these various components are at the programmatic and clinical levels, the more likely that patients with complex conditions and socioeconomic challenges will have their medical and psychosocial needs met in a comprehensive fashion, rather than falling through the cracks between various “silos,” with resultant adverse health outcomes and increased cost. There is sufficient evidence that there are significant numbers of patients who could benefit from better recognition and treatment of mental health issues within primary care. Health care systems which have successfully implemented programs to integrate behavioral health and primary care services have tended to demonstrate improved care and significant cost savings (Health Management Associates, 2007), in addition to increased provider satisfaction and improved patient satisfaction. A number of high profile organizations, including the Institute of Medicine, the Robert Wood Johnson Foundation, and the Health Resources and Services Administration (HRSA), have either recommended integration of physical and behavioral health services or funded projects dedicated to doing so (Health Management Associates, 2007).
- v. Measure: Assess need and capacity for long-term crisis intervention/stabilization capability to improve access to behavioral health care in the most appropriate, cost-effective setting
  - 1. Metric: Needs assessment
    - a. Submission of assessment findings
    - b. Data Source: Assessment
    - c. Rationale/Evidence: With inadequate long-term crisis stabilization capacity in communities, individuals are placed in substitute, higher cost, less appropriate settings. Having long-term crisis stabilization options will improve access to appropriate, cost-effective care.
- vi. Measure: Assess need and capacity for early intervention or intensive wraparound services and supports for a targeted behavioral health population, including co-

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occurring disorders, to reduce unnecessary use of more expensive services in a specified setting.

1. Metric: Needs assessment
  - a. Submission of assessment findings
  - b. Data Source: Assessment
  - c. Rationale/Evidence: Early intervention and intensive wraparound services and supports can reduce unnecessary use of more expensive services.
- vii. Measure: Assess need and capacity for a continuum of care in the community for persons with serious and persistent mental illness (SPMI) and co-occurring disorders.
  1. Metric: Demand assessment
    - a. Submission of assessment findings
    - b. Data Source: Assessment
    - c. Rationale/Evidence: Continuum of care services in a community can provide persons with SPMI and co-occurring disorders supports to enable them to stay in the community with more appropriate, cost-effective care.
- viii. Measure: Implement long-term crisis intervention/stabilization model
  1. Metric: Implementation of evidence-based crisis intervention/stabilization model based on needs assessment.
    - a. Submission of implementation plan and evidence of implementation.
    - b. Data Source: Implementation plan and implementation documentation.
- ix. Measure: Implement early intervention or intensive wraparound services and supports program for a targeted behavioral health population.
  1. Metric: Implementation of evidence-based early intervention or intensive wraparound services and supports program.
    - a. Submission of implementation plan and evidence of implementation.
    - b. Data Source: Implementation plan and implementation documentation.
- x. Measure: Implement continuum of care program in the community for persons with serious and persistent mental illness (SPMI) and co-occurring disorders.
  1. Metric: Implement evidence-based program.
    - a. Submission of implementation plan and evidence of implementation.
    - b. Data Source: Implementation plan and implementation documentation.
- xi. Measure: Co-locate and/or integrate behavioral health and primary care (must select at least one metric):
  1. Metric: Number of primary care clinics with co-located behavioral health services, *or vice versa*
  2. Metric: Transfer behavioral health professionals into primary care clinics
  3. Metric: Transition number or percent of stable and compliant seriously mentally ill psychiatric patients from specialty mental health care to a clinic based care model
    - a. Data Source: Documentation of rotation schedules and/or patient panels, workplans, processes, roles/responsibilities, program descriptions, and/or other materials from the co-location
    - b. Rationale/Evidence: Recent studies show that integration of behavioral health (mental health and substance abuse) and physical health services should be the standard for advanced health care systems. This finding is part of a larger trend to better integrate the various parts of a health care system in the interest of more cost-effective and comprehensive patient care. The more integrated these various components are at the programmatic and clinical levels, the more likely that patients with complex conditions and socioeconomic challenges will have their

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- medical and psychosocial needs met in a comprehensive fashion, rather than falling through the cracks between various “silos,” with resultant adverse health outcomes and increased cost. There is sufficient evidence that there are significant numbers of patients who could benefit from better recognition and treatment of mental health issues within primary care.
- xii. Measure: Development of a tracking mechanism of referrals from primary care providers to on-site mental health professionals to be used at the pilot of physical-behavioral health sites
    - 1. Metric: A process or mechanism for tracking referrals from primary care providers to on-site mental health professionals, ready for implementation. Process or mechanism must identify the current number of referrals for use as baseline data.
      - a. Data Source: Documentation of process for creating and adjusting tracking mechanism, including supporting materials such as development of criteria for referral and descriptions of processes, workplans, roles and responsibilities, and timeline and frequency of tracking.
      - b. Rationale/Evidence: The vast majority of patients with behavioral health problems are managed by primary care providers without behavioral health specialty care, either because the patient doesn’t meet entry criteria into the mental health system (generally limited to the severely and persistently mentally ill) or because the patient refuses behavioral health specialty care (often because of the stigma attached to such care) (Cunningham, 2009). Many primary care providers feel poorly equipped to handle significant behavioral health issues by themselves. The more integrated the various components are at the programmatic and clinical levels, the more likely that patients with complex conditions and socioeconomic challenges will have their medical and psychosocial needs met in a comprehensive fashion, rather than falling through the cracks between various “silos,” with resultant adverse health outcomes and increased cost.
  - xiii. Measure: Develop patient visit tracking model to establish staffing productivity, patient no show rates, and/or financial cost and reimbursement dimensions of the new service component.
  - xiv. Measure: Track the number of referrals from primary care providers to on-site mental health professionals to be used at the pilot of physical-behavioral health sites
    - 1. Metric: Number of referrals from primary care providers to on-site mental health professionals
      - a. Once a baseline has been established, number or percent of referrals from primary care providers to on-site mental health professionals over baseline
      - b. Data Source: Tracking mechanism, into which data will be input and/or evidence of accurate measurement of the number of referrals
      - c. Rationale/Evidence: The vast majority of patients with behavioral health problems are managed by primary care providers without behavioral health specialty care, either because the patient doesn’t meet entry criteria into the mental health system (generally limited to the severely and persistently mentally ill) or because the patient refuses behavioral health specialty care (often because of the stigma attached to such care) (Cunningham, 2009). Many primary care providers feel poorly equipped to handle significant behavioral health issues by themselves.

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The more integrated the various components are at the programmatic and clinical levels, the more likely that patients with complex conditions and socioeconomic challenges will have their medical and psychosocial needs met in a comprehensive fashion, rather than falling through the cracks between various “silos,” with resultant adverse health outcomes and increased cost.

- xv. Measure: Establish/implement/distribute consensus-care referral guidelines
  - 1. Metric: Submission of developed referral guidelines/policies
    - a. Rationale/Evidence: In an effort to standardize referrals and the parameters for referrals between physical and behavioral health care providers, the patient can receive a better continuity of care with increased access to holistic health care, and reduce inappropriate referrals.
- xvi. Measure: Use joint consultations and treatment planning, and coordinate resources to improve patient education, support, and compliance with the medication regimen
  - 1. Metric: Joint consultations
    - a. Number of joint consultations over baseline
    - b. Rationale/Evidence: Patients with both behavioral and physical conditions generate significantly higher medical costs than patients with only one set of conditions, and treatment of the behavioral health conditions lowers those costs, particularly if diagnosed early (Olfson, Sing, and Schlesinger, 1999).
- xvii. Measure: Implement a psychiatric evaluation program
  - a. Metric: Implementation of a psychiatric evaluation program
  - b. Data Source: Documentation of workplans, processes, roles/responsibilities, program descriptions, and/or other materials related to creation of this program.
- xviii. Measure: Implement a case management program
  - 1. Metric: Implementation of a case management program.
    - a. Data Source: Documentation of workplans, processes, roles/responsibilities, program descriptions, and/or other materials related to creation of this program.
    - b. Rationale/Evidence: Case management has the potential to be an important resource for incorporating preventive and primary care treatment goals. Mental health case managers can play a key role in assisting patients in developing self-management goals, managing chronic conditions, and promoting wellness by supporting tobacco cessation, nutrition, and exercise.<sup>48</sup> Case management is also one of the criteria for the medical home that is beneficial to both physical and mental health (2008), as defined by the National Committee for Quality Assurance (NCQA).
- xix. Measure: Convene a clinical content team for development of a structured algorithm to determine selection of pharmacologic therapy for depression.
  - 1. Metric: Select members of the clinic content team.
- xx. Measure: Implement a structured care algorithm for selection of pharmacologic therapy for depression
  - 1. Metric: Implementation of care algorithm for selection of pharmacologic therapy for depression.

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<sup>48</sup> Collins, et al. *Evolving Models of Behavioral Health Integration in Primary Care*. Milbank Memorial Fund, New York. ISBN 978-1-887748-73-5.

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- a. Data Source: Documentation of workplans, processes, roles/responsibilities, program descriptions, and/or other materials related to creation of this program.
  - b. Rationale/Evidence: Depression is common in primary care patients, with an incidence from 10 to 15 percent among patients who present to a physician's office for any reason. Many patients benefit from pharmacologic treatment and, because there is little variation in antidepressant effectiveness, medication choices should be made based on patient characteristics, safety, and anticipated side effects.<sup>49</sup>
- xxi. Measure: Implement telepsychiatric consultation
- 1. Metric: Number of clinics with telepsychiatric consultations
- o **Improvement Measures:**
- i. Measure: Integrate depression screening of targeted patients within the primary care setting
    - a. Metric: PHQ-9 Depression Score<sup>50</sup> and/or a another depression screening tool for targeted patients (as defined by [Performing Provider](#)) diagnosed with depression seen in an integrated physical/mental health setting
      - i. Numerator: Number of targeted patients seen in the physical and behavioral health integration pilot primary care clinics that are screened for depression
      - ii. Denominator: Total number of targeted patients seen in the physical and behavioral health integration pilot primary care clinics
      - iii. Data Source: Registry, charts, other practice management system, EHR, or other documentation as designated by [Performing Provider](#)
      - iv. Rationale/Evidence: Optimal management of chronic diseases such as diabetes is often hampered by unrecognized or inadequately treated depression. In addition, improved recognition of depression through systematic screening within the diabetic population will promote better outcomes. The PHQ-9 is recommended as an effective measurement tool; however, there are other effective tools. A critical tool to measure the impact of integrating physical and behavioral health care being adopted in public hospital systems is the PHQ-9 Depression Screening Tool. Research indicates that 10-15% of all primary care patients have depression, which is one of the top five most common conditions found in primary care settings. According to an evaluation of 20 studies over the past 10 years, the prevalence rate of diabetics with major depression is three to four times greater than in the general population, according to the American Diabetic Association.
  - ii. Measure: Achieve number or percent of annual history and physicals (H&P) for severely and persistent mentally ill population without regular primary care
    - a. Metric:
      - i. Numerator: Number of targeted patients seen in pilot clinic with completed history and physical

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<sup>49</sup> Adams, et al. University of Tennessee College of Medicine, Chattanooga, Tennessee. *Am Fam Physician*. 2008 Mar 15;77(6):785-792.

<sup>50</sup> The PHQ-9 is the nine-item depression scale of the Patient Health Questionnaire (PHQ), which is a depression screening tool used widely by primary care clinicians to diagnose mental health disorders. This tool is found to be an efficient way to screen individuals and large groups of patients to improve detection of undiagnosed depression. Also see Appendix A for further information.

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- ii. Denominator: Total number of targeted patients seen in the pilot clinic
- iii. Measure: Increase the number or percent of patients with a behavioral health care need (e.g., primary diagnosis of depression) as identified by the primary care provider, who have access to behavioral health care (e.g., visits with social workers, case managers or psychiatrists), as needed
  - a. Metric: Primary care-initiated scheduled visits with behavioral health professionals
    - i. Number of patients with a behavioral health care need (e.g., primary diagnosis of depression) as identified by the primary care provider who have access to visits with behavioral health professionals over baseline
    - ii. Data Source: Documentation counting the number of patients with a Diagnostic and Statistical Manual (DSM) mental health diagnosis or substance abuse issue, including supporting evidence of proper diagnosis and consultation to provide access to behavioral services
    - iii. Rationale/Evidence: Failure to detect and treat behavioral health needs leads to unnecessary suffering and disability, and increases the use of health care services. For example, the U.S. Preventative Services Task Force finds that screening for depression in the primary care setting improves detection rates, which in turn helps physicians provide the proper treatment to their patients.
- iv. Measure: Provide timely initial behavioral health visit wait times
  - a. Metric: Initial behavioral health visit wait time among enrolled patients who meet the medical necessity criteria, the median wait time for an initial behavioral health visit will be less than X days (as defined by [Performing Provider](#) in working with behavioral health counterparts)
    - i. Data Source: Practice management or scheduling systems, or other documentation decided by [Performing Provider](#) and behavioral health [or physical health](#) counterparts
    - ii. Rationale/Evidence: Long visit wait times could potentially force patients suffering from mental illness to go without help. This could result in unnecessary emergency room visits or even jail.
- v. Measure: Assign patients discharged from the inpatient psychiatric unit to a medical home
  - a. Metric: Patients discharged from the inpatient psychiatric unit who have an assigned medical home.
    - i. Numerator: Number of patients discharged from the inpatient psychiatric unit who have an assigned medical home
    - ii. Denominator: Total number of total patients discharged from the inpatient psychiatric unit
    - iii. Data Source: TBD by [Performing Provider](#)
    - iv. Rationale/Evidence: Access to primary care is important because newer medications used to treat mental illnesses put patients at increased risks for diabetes and other metabolic problems. By increasing access to behavioral, social and medical services, there is potential to reduce the risk of repeated hospitalizations.
- vi. Measure: Increase the number of telepsychiatric consultations
  - a. Metric: Number of telepsychiatric consultations
- vii. Measure: Provide primary care patients behavioral health service (must select at least one metric):

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- a. Metric: Number or percent of primary care patients receiving behavioral health service(s)
- b. Metric: Number or percent of patients referred from primary care system to behavioral health integrated clinic that will have received brief treatment through integrated behavioral health service
- viii. Measure: Health and behavioral health status data will be collected and tracked on behavioral health patients treated within primary care setting.
  - a. Metric: Percent of behavioral health patients treated within primary care setting.
- ix. Measure: Primary care patients who receive behavioral health services will report improved satisfaction with overall healthcare received; increased involvement in care; and/or improved emotional well being
- x. Measure: Reduction in overall time in the ED for psychiatric patients
  - a. Metric: Reduction in overall time in the ED for psychiatric patients
    - i. Numerator: Total time spent in ED.
    - ii. Denominator: ED visits
    - iii. Data Source: ED electronic record.
- xi. Measure: Decreased utilization of the ED services by enrolled or targeted program participants
  - a. Metric: Decreased utilization of the ED services by enrolled program participants.
    - i. Numerator: ED visits.
    - ii. Denominator: Program participants
    - iii. Source: Decision support system.
- xii. Measure: Decreased recidivism as measured by decreased re-hospitalization for program participants
  - a. Metric: Decreased recidivism as measured by decreased re-hospitalization for program participants
    - i. Numerator: Inpatient admissions.
    - ii. Denominator: Program participants
    - iii. Source: Decision support system.
- xiii. Measure: Increased psychiatry residency, mid-level (e.g., LCSW), paraprofessional, peer to peer and voluntary training programs, internships or rotations as applicable.
  - a. Metric: Increase in psychiatry residency, mid-level (e.g., LCSW), paraprofessional, peer to peer and voluntary training programs, internships or rotations as applicable.
    - i. Data Source: Documented enrollment in programs by targeted personnel by year.
  - b. Metric: Increase the number or behavioral health staff rotating/interning/training at the Performing Provider's facilities
    - i. Data Source: Student/trainee rotation/internship/training schedule
- xiv. Measure: Increased volume of behavioral health services provided in programs/locations developed for targeted population.
  - a. Metric: Increase in volume of BH services over baseline for targeted population.
  - b. Data source: clinic or facility patient data.
- xv. Measure: Increased psychiatry, mid-level, paraprofessional, peer to peer and trained volunteers providing services in targeted programs
  - a. Metric: increase in professionals, paraprofessionals, peers and volunteers over baseline.

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- xvi. b. Data source: staff hours, HR records or other TBD by Performing Provider. Measure: Reduced use of less clinically appropriate or desired (e.g., less restrictive; inpatient vs. outpatient, etc.) care or care sites by targeted population when alternative clinically appropriate option implemented (e.g., long-term crisis stabilization).
  - a. Metric: reduction in less clinically appropriate or desired (e.g., less restrictive; inpatient) care or care sites by targeted population when alternative option implemented;
  - b. Data source: TBD by Performing Provider based on program and relevant care sites.
  - c. Metric: increase in target population served in alternative clinically preferred, less-costly setting.
  - d. Data source: TBD by Performing Provider based on program and relevant care sites (e.g. inpatient vs. community; inpatient vs. stabilization unit)
- xvii. Measure: increase in behavioral health

Increase Specialty Care Access/Redesign Referral Process (NOTE: To be incorporated into Category 1 Project to Expand Speciality Care)

- Project Goal: Increase access to specialty care through increased efficiencies, capacity, and systems so that patients in need of specialist care can receive that care in a timely manner.
- Project Options:
  - Implement transparent, standardized referrals across the system
  - Improve access to specialty care
- Key Measures:
  - **Process Measures:**
    - i. Measure: Develop and implement standardized referral and work-up guidelines
      - a. Metric: Referral and work-up guidelines
        - i. Documentation of referral and work-up guidelines
        - ii. Data Source: Referral and work-up policies and procedures documents
        - iii. 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
      - ii. Measure: Complete a planning process/submit a plan to implement electronic referral technology (choose at least one metric):
        - a. Metric: Development of a staffing plan for referral system
          - i. Data Source: Referral plan, describes the number and types and staff and their respective roles needed to implement the system.
        - b. Metric: Development of an implementation plan for e-referral
          - i. Data Source: Referral plan, which describes the technical mechanisms needed to operate e-referral system.
      - iii. Measure: Develop the technical capabilities to facilitate electronic referral

**Deleted:** Related Projects:¶  
Reduce Readmissions (Cat. 4)¶  
Improve Quality (Cat. 4)¶  
Redesign to Improve Patient Experience (Cat. 2)¶  
Improve Patient/Caregiver Experience (Cat. 4)¶  
Redesign for Cost Containment (Cat. 2)¶  
Other¶

**Deleted:** eReferral or other

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- a. Metric: Demonstrate technical mechanisms to be used to operate referral system are in place
  - i. Data Source: TBD by Performing Provider
  - ii. Rationale/Evidence: In order to implement referral technology, other technical capabilities may need to be put in place first.
- iv. Measure: Implement referrals technology and processes that enable improved and more streamlined provider communications
  - i. Documentation of referrals technology
  - ii. Data Source: Referral system
  - iii. Rationale/Evidence: According to a University of California at San Francisco (UCSF) report<sup>51</sup>, 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.
  - v. Measure: Increase referral coordination resources for primary care and medical specialty clinics by developing and implementing bi-directional communication functionality in the system
    - a. Metric: Number of primary care and medical specialty clinics that manage referrals utilizing the bi-directional communication function of the referral management system.
      - i. 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.
      - ii. Denominator: Total number of referrals into medical specialty clinics over a defined period of time.
      - iii. Data Source: Patient or electronic medical record that shows the bi-directional communication between primary and medical specialty clinics.
      - iv. 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.
  - vi. Measure: Train or educate personnel and/or referring providers on referral guidelines
    - a. Metric: Number of personnel/referring providers trained/educated
  - vii. Measure: Analyze occurrence of unnecessary specialty clinic follow-up appointments
    - a. Metric: Number of unnecessary specialty clinic follow-up appointments
    - b. Data Source: Chart review with protocol for determining unnecessary follow up visits
- o **Improvement Measures:**
  - i. Measure: Implement specialty care access programs (e.g., referral technologies)
    - 1. Metric: Number of primary care and medical specialty clinics with specialty care access programs

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**Deleted:** Measure: Implement the re-design of medical specialty clinics in order to increase operational efficiency, shorten patient cycle time and increase provider productivity. Metric: Number of medical specialty clinics that have completed clinic redesign. Numerator: Average cycle time of appointments in medical specialty clinics that have undergone re-design. Denominator: Overall average cycle time of appointments in all medical specialty clinics. Data Source: Specialty clinic appointment tracking system. 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. Measure: Conduct specialty care gap assessment. Metric: Gap assessment. Submission of completed assessment. Data Source: Assessment. 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

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<sup>51</sup> 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>

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- 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.
- ii. Measure: 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)
- 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.
- iii. Measure: Reduce the rate of inappropriate or rejected referrals / or increase the rate of appropriate or accepted referrals
- 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.
- iv. Measure: Reduce the average number of specialty follow-up visits
- 1. Metric: Utilization of medical specialty appointments for routine follow-up care.
    - a. Numerator: Number of appointments in medical specialties for routine follow-up care for a targeted group of patients.
    - b. Denominator: Total number of appointments for a targeted group of patients.
    - c. Data Source: Appointment scheduling software. Paper or electronic medical record indicating purpose of visit in medical specialties clinic.
    - d. Rationale/Evidence: Patients should receive care in the most appropriate setting. Monitoring the utilization patterns of patients to reduce the number of routine follow up appointments provided in an inappropriate

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- setting and re-directing patients helps to achieve more appropriate utilization of medical specialty appointments.
- v. Measure: Measure wait times for specialty care appointments
    - 1. Metric: The percent of referrals seen/evaluated by a specialist (either electronically or in-person) within a defined period of time since referral initiation
      - a. Numerator: The number of patients evaluated by a medical specialist within a defined time period.
      - b. Denominator: The total number of patients evaluated by a medical specialist within a defined time period.
      - c. Data Source: Appointment scheduling software.
      - d. Rationale/Evidence: Tracking wait times for patients into medical specialties allows for targeted interventions in medical specialty clinics. One of the key features of an electronic referral system is to allow specialists to both prioritize referrals and work with primary care referring providers to avoid unnecessary referrals by providing timely feedback. Rather than waiting months for an in-person visit, patients can be effectively managed through timely advice and feedback from specialists to primary care providers.
  - vi. Measure: Measure the number of specialty care referrals that result without a specialty clinic visit
    - 1. Metric: TBD by [Performing Provider](#)
  - vii. Measure: Patients receive a follow-up contact by their primary care provider within 90 days following a request by the specialist
    - 1. Metric: Days to follow-up contact
      - a. Numerator: The number of patients that receive a follow-up contact by their primary care provider within 90 days following a request by the specialist.
      - b. Denominator: The total number of patients for whom a specialist has requested a 90-day follow-up appointment with their primary care provider.
      - c. Data Source: Paper or electronic medical record and appointment scheduling software.
      - d. Rationale/Evidence: Patients who are seen in primary care within 90 days as follow up to an appointment with a medical specialist are more likely to receive care in the appropriate setting.
  - viii. Measure: Measure proportion of specialty referrals initiated and processed through the system
    - 1. Metric: [Referral system](#) volume
      - a. Numerator: Number of specialty referrals initiated and processed through [referral technology/system](#)
      - b. Denominator: Total number of specialty referrals
      - c. Data Source: Documentation of referral in [referral technology system](#) and referrals received through alternate methods (Faxes/phone calls)
      - d. Rationale/Evidence: Moving a traditional paper based referral management system to an electronic referral management system is a tremendous system transition. Measuring the proportion of [electronic referrals](#) to [the total number of specialty referrals](#) allows the system to monitor progress towards the goal of managing all referrals into medical specialties electronically.
  - ix. Measure: Achieve compliance/meet or exceed standards for specialty care

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1. Metric: The number of patients that are seen in medical specialties within the number of days established to meet the standards for specialty care.
  - a. Numerator: The number of patients that are given an appointment in medical specialties within the number of days established as the standard.
  - b. Denominator: The total number of patients given an appointment in medical specialties.
  - c. Data Source: Appointment scheduling software.
  - d. Rationale/Evidence: Timely access to medical specialties for patients that cannot be adequately cared for exclusively in the primary care setting is a critical component of a well functioning delivery system.
- x. Measure: Reduce cycle times for report dictation
  1. Metric: Report dictation cycle time
    - a. TBD by [Performing Provider](#)

**7. Establish/Expand a Patient Care Navigation Program**

- Project Goal: Help and support patients especially in need of coordinated care navigate through the continuum of health care services so that patients can receive coordinated, timely services when needed with smooth transitions between health care settings.
- Project **Options**:
  - Establish/expand health care navigation services
  - Provide navigation services to targeted patients who are at high risk of disconnect from institutionalized health care (for example Limited English Proficient patients, recent immigrants, the uninsured, those with low health literacy, frequent visitors to the ED, and others)
  - [Identify frequent ED utilizers and use navigators as part of a preventable ED reduction program.](#)
  - Connect patients to medical homes, increase access to primary and specialty care, and increase access to chronic care management
- Key Measures:
  - **Process Measures**:
    - i. Measure: Establish/expand a health care navigation program to provide support to patient populations who are most at risk of receiving disconnected and fragmented care.<sup>52</sup>
      - a. Metric: Number of patients enrolled in the patient navigation program; frequency and intensity of contact with care navigators.
        - i. Documentation of patient navigation program
        - ii. Data Source: Patient navigation program materials and database, EMR
        - iii. 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.<sup>53</sup>

**Deleted:** Related Projects:¶  
Redesign to Improve Patient Experience (Cat. 2)¶  
Improve Patient/Caregiver Experience (Cat. 4)¶  
Increase Primary Care Capacity (Cat. 1)¶  
Expand Medical Homes (Cat 2)¶  
Redesign Primary Care (Cat. 2)¶  
Expand Chronic Care Management Models (Cat.2)¶  
Enhance Culturally Competent Care (Cat.1)¶  
Implement/Expand Care Transitions Programs (Cat.2)¶  
Increase Specialty Care Access (Cat.2)¶  
Other¶

<sup>52</sup> 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)

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- ii. Measure: Provide care management/navigation services to targeted patients (e.g., high utilizers of the ED and/or inpatient services)
    - a. Metric: Increase in the number or percent of targeted patients enrolled in the program
      - i. Numerator: Number of targeted patients enrolled in the program
      - ii. Denominator: Total number of targeted patients identified
      - iii. Data Source: Enrollment reports
  - iii. Measure: Increase patient engagement, such as through patient education, self-management support, improved patient-provider communication techniques, and/or coordination with community resources
    - a. Metric: Number of classes and/or initiations offered, or number or percent of patients enrolled in the program participating
      - i. Data Source: May vary, such as class participant lists
      - ii. 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
  - iv. Measure: Provide navigation services to patients using the ED for episodic care
    - a. Potential Metrics: (may choose one or more)
      - i. Number/percent of patients without a primary care provider who received education about a primary care provider in the ED
      - ii. Number/percent of patients without a primary care provider who were referred to a primary care provider in the ED
      - iii. Number/percent of patients without a primary care provider who are given a scheduled primary care provider appointment
      - iv. Number/percent of patients with a primary care provider who are given a scheduled primary care provider appointment
      - v. Number/percent of ED patients identified as frequent utilizers (TBD by Performing Provider) who received patient navigation services.
- o **Improvement Measures:**
- i. Measure: Number of patients without a medical home who use the ED, urgent care, and/or hospital services scheduled from these sites for primary care appointments
    - a. Metric: Performing Provider administrative data on patient encounters and scheduling records from patient navigator program
  - ii. Measure: Measure ED visits and/or avoidable hospitalizations for patients enrolled in the navigator program
    - a. Metric: ED visits and/or avoidable hospitalizations
      - i. Numerator: Number of patients enrolled in the navigator program who have had an ED visit or an inpatient admission (timeframe TBD by Performing Provider)
      - ii. Denominator: Total number of patients enrolled in the navigator program
      - iii. Data Source: EMR, navigation program database, ED records, inpatient records
      - iv. Rationale/Evidence: Avoidable hospitalizations and excessive use of ED are seen as key measures of patients' disconnect from the health care systems.<sup>54</sup> As this is an innovative program, it is a good

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<sup>53</sup> 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>

<sup>54</sup> For example, see the care transitions work of Eric Coleman, MD, at <http://www.caretransitions.org>

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opportunity to measure whether the program can have a direct impact on reducing ED visits/avoidable hospitalizations.

- iii. Measure: Reduction in ED use by identified ED frequent utilizers receiving navigation services
  - a. Metric: ED visits pre- and post-navigation services by individuals identified as ED frequent utilizers.
    - i. ED visits from hospital site with frequent ED use pre- and post-navigation services.

8. Apply Process Improvement Methodology to Improve Quality/Efficiency (e.g., Rapid Cycle, Management Engineering, and Lean Technology)

- Project Goal: Implement continuous performance improvement in order to improve efficiencies, improve quality, improve experience, reduce inefficiencies, and eliminate waste and redundancies.
- Project Options:
  - Implement a quality/process improvement methodology
  - Measure continuous improvement

**Deleted:** Measure: Improve patient experience (this measure may be moved to Category 3, pending the finalization of Category 3)¶  
 Metric: Patient experience/satisfaction survey score¶  
 Percent improvement in patient satisfaction scores among patients participating in the navigation program¶  
 Data Source: Patient satisfaction survey¶  
 Rationale/Evidence: Navigation services are proven in numerous studies to result in improved patients' experience with care.55 ¶

- Key Measures:
  - **Process Measures:**
    - i. Measure: Implement a program to improve efficiencies and/or reduce program variation
      - a. Metric: Performance improvement events
        - i. Number of performance improvement events
        - ii. Data Source: TBD by Performing Provider
        - iii. 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).

**Deleted:** Related Projects:¶  
 Reduce Readmissions (Cat. 4)¶  
 Improve Quality (Cat. 4)¶  
 Reduce Harm from Medical Errors (Cat. 4)¶  
 Improve Patient Flow in the ED (Cat. 2)¶  
 Redesign for Cost Containment (Cat. 2)¶  
 Other¶

- ii. Measure: Implement a rapid improvement project using a proven methodology (i.e., Lean/Kaizen, Institute for Healthcare Improvement Rapid Cycle improvement method).

- a. Metric: Rapid improvement cycle
  - i. 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
  - ii. 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.
  - iii. Rationale/Evidence: Texas hospitals employ various quality and process improvement methodologies to identify inefficiencies and

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- 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.<sup>57</sup>
- iii. Measure: Train providers/staff in process improvement
    - a. Metric: Number/proportion of relevant providers/staff trained or number of trainings held
      - i. Numerator: Number of relevant providers/staff trained
      - ii. Denominator: Total number of relevant providers/staff
      - iii. Number of trainings held
      - iv. Number of providers/staff trained
      - v. Data Source: Curriculum or other training schedules/materials
      - vi. 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.
  - iv. Measure: 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
    - a. Metric: Value stream mapping
      - i. Submission of completed value stream map
      - ii. Data Source: Value stream map
      - iii. 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.
  - v. Measure: Target specific workflows, processes and/or clinical areas (e.g., the OR) to improve
    - a. Metric: TBD by Performing Provider
      - i. Numerator: TBD by Performing Provider
      - ii. Denominator: TBD by Performing Provider
      - iii. Data Source: TBD by Performing Provider
      - iv. Rationale/Evidence: TBD by Performing Provider
  - vi. Measure: Identify/target metric to measure impact of process improvement methodology and establish baseline
    - a. Metric: TBD by Performing Provider
      - i. Numerator: TBD by Performing Provider
      - ii. Denominator: TBD by Performing Provider
      - iii. Data Source: TBD by Performing Provider
      - iv. Rationale/Evidence: TBD by Performing Provider
  - vii. Measure: Compare and analyze data, and identify at least one area for improvement
    - a. Metric: Analysis and identification of target area

**Deleted:** Developed by Toyota in the 1950s to strengthen automobile manufacturing infrastructure and maximize resources,

**Deleted:** According to the California HealthCare Foundation report Operations Improvement Methods: Choosing a Path for Hospitals and Clinics by David Belson, PhD, "Lean helps providers work toward a state of continuous improvement, whereby the product flows at the pull of the customer in pursuit of perfection."<sup>56</sup> Also, Denver Health System has had much success implementing Lean

<sup>57</sup> <http://www.ihl.org/Pages/default.aspx> and <http://www.ahrq.gov/qual/patientsafetyvix.htm>

**Deleted:** Meyer, Harris, "Life in the 'Lean' Lane: Performance Improvement at Denver Health," *Health Affairs* (November 2010), vol. 29 no. 11, 2054-2060

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- i. Submission of analysis findings/summary and identification of target area
      - ii. Data Source: Analysis
      - iii. Rationale/Evidence: It is important to continue to identify areas needing improvement.
    - viii. Measure: Develop early-warning systems within the EHR to act upon identified problems
      - a. Metric: Documentation of respective early-warning systems through dashboard reports
    - ix. Measure: Develop a quality dashboard
  - o **Improvement Measures:**
    - i. Measure: Progress toward target/goal
      - a. Metric: Number or percent of all clinical cases that meet target/goal
        - i. Numerator: Number of relevant clinical cases at target
        - ii. Denominator: Total number of relevant clinical cases
        - iii. Data Source: TBD by Performing Provider
        - iv. 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.<sup>58</sup> Finding a way to measure this impact could be very beneficial.
    - ii. Measure: Measure efficiency and/or cost
      - a. Metric: TBD by Performing Provider
        - i. Numerator: TBD by Performing Provider
        - ii. Denominator: TBD by Performing Provider
        - iii. Data Source: TBD by Performing Provider
        - iv. 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.
    - iii. Measure: Report findings and learnings
      - a. Metric: Final report/report summary
        - i. Submission of report
        - ii. Data Source: All data sources used for the process improvement events
        - iii. 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.
    - iv. Measure: Number of process improvement champions

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<sup>58</sup> National Priorities Partnership, <http://www.nationalprioritiespartnership.org/PriorityDetails.aspx?id=598>.

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- a. Metric: Champions
  - i. Number of trained and designated process improvement champions
  - ii. Data Source: HR, or training curriculum or other program materials
  - iii. Rationale/Evidence: Part of process improvement is implementing a culture change oriented toward continuous performance improvement.
- v. Measure: Number of trainings conducted by designated trainee/process improvement champions
  - a. Metric: Trained by the trainee/champion trainings
    - i. Number of trainings conducted by designated process improvement trainees/champions
    - ii. Number of providers/staff trained by designated process improvement trainees/champions
    - iii. Data Source: Training program curriculum, educational materials, attendance lists, or other materials
    - iv. Rationale/Evidence: Part of process improvement is implementing a culture change oriented toward continuous performance improvement.

9. Improve Patient Flow in the Emergency Department/Rapid Medical Evaluation

- Project Goal: Reduce wait times in the ED so that patients in need of care are triaged in a timely manner, patients receive care in a timely manner, and fewer patients leave the ED without being seen.
- Project **Options**:
  - Analyze ED throughput
  - Increase ED throughput
  - Develop and implement ED triage protocol
  - Establish ED care teams to improve patient flow
- Related Projects:
  - Improve Quality (Cat. 4)
  - Other
- Key Measures:
  - **Process Measures:**
    - i. Measure: Develop processes and systems to accurately capture ED throughput cycle times<sup>59</sup>
      - a. Metric: ED Door to Doc Times
        - i. Actual time from first presentation to the ED department
        - ii. Data Source: The actual times of presentation off the initial triage form and patient seen time off the physicians' emergency treatment record.
        - iii. Rationale/Evidence: Nationwide, hospitals have successfully used methodologies like the Rapid Medical Evaluation (RME) program or Lean principles to improve access to appropriate care in their

**Deleted:** California Emergency Physicians Medical Group (CEP) confronted rising patient volumes and limited space by reengineering the patient treatment process, developing

**Deleted:** ED cycle time is triage to ED bed, ED bed to decision-to-admit, decision to orders, orders to ready bed, and ready bed to arrival on floor

<sup>59</sup> <http://urgentmatters.org/toolkit>, <http://urgentmatters.org/media/file/EDBA.pdf> and <http://www.innovations.ahrq.gov/content.aspx?id=1754>

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- emergency departments by improving patient flow, improving care, and increasing patient satisfaction. The main tenet is to bring patients to providers as quickly as possible upon arrival to the ED. The benefits of using these improvement methodologies are quicker door-to-provider times, fewer patients leaving without being seen, and increased revenue because of improved efficiencies.
- ii. Measure: Establish interdisciplinary workgroup to validate and improve data capture, and set targets for ED cycle time improvement
    - a. Metric: ED cycle time
      - i. Manual or electronic extraction of data from the triage form, emergency treatment record and ED IT systems for discharge time. This may be presented for periodic review.
      - ii. Data Source: PI Data Tracking Tools or other
      - iii. Rationale/Evidence: Presentation of data and review ensures data integrity and allows staff to be more aware of patient wait times and reasons for increase/decrease
  - iii. Measure: Undertake an initiative to dissect and measure the components of the overall cycle time
    - a. Metric: Analysis of patient flow
      - i. Submission of patient flow diagram
      - ii. Data Source: Patient flow diagram
      - iii. Rationale/Evidence: Analyzing ED throughput begins with overview of the process that the facility currently uses. After looking at the flow, it is important to then look at the type of triage criteria the ED uses.<sup>60</sup>
  - iv. Measure: Develop a robust timestamp process
    - a. Metric: Door-to-discharge
      - i. Submission of Door to triage (patient presentation to nurse triage), Door to Provider (patient presentation to ER to Doctor medical screening), and Door to Discharge (patient presentation to ER to discharge home)<sup>61</sup> timestamps
    - b. Metric: Door-to-admission, which includes three components: 1. Door to admissions decision time; 2. Door to time admissions orders are written; and 3. Door to time to admission bed on the nursing unit
      - i. Door value is always taken from the initial Triage time upon presentation from that time one can calculate the time periods.
      - ii. Data Source: Actual times of presentation off the initial triage form and patient seen time off the physician's emergency treatment record for admission decision and our tracking board for time of placement in admission floor bed.
- o **Improvement Measures:**
- i. Measure: Reduce ED wait time / Reduce overall ED cycle time for admitted patients

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**Deleted:** Under RME, all patients can be seen in a timely manner, usually within 30 minutes of arrival. The treatment process is fluid, adjusting to ensure treatment is provided as quickly as possible. The process begins immediately, including an initial assessment, ordering of labs and X-rays, and in some cases, rapid discharge without utilizing an ED bed. Patients presenting to the ED are escorted immediately to an intake area staffed with a physician, a technician, and a unit clerk. A quick focused interview by the provider results in rapid assignment of patients into two groups depending on acuity and severity of their condition, based on a quick look rather than a full triage. The sicker group goes to the main emergency department for treatment. The less sick group may either be discharged (to home or to a medical home) or sent for lab or radiology studies.

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<sup>60</sup> Such as ESI Triage criteria, which is a simple but very effective five-tier triage system of categorizing patients acuity.

<sup>61</sup> This number will vary depending on the addition of orders to complete the medical decision, such as simple blood work, x-rays, ultrasound and CT scan. Many patients would get these tests as outpatient but due to current access to primary care issues, facilities may complete them when they present. The hard part of evaluating "door to discharge" times is establishing the work-up involved in order for the physician to make a safe and accurate medical decision. Tracking all patients that present to the emergency department in this category would make this data much less useful due to the various treatments required for each patient.

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- a. Metric: Door-to-admission
  - i. Door value is always taken from the initial triage time. from which one can calculate the time periods.
  - ii. Data Source: Actual times of presentation off the initial triage form and patient seen time off the physicians' emergency treatment record for admission decision. Facility tracking board for time of placement in admission floor bed.
  - iii. Rationale/Evidence: Overall cycle time is easy to measure but results are hard to interpret. This is due to several factors of the patient's stay. If one patient comes in for a simple medication refill then the cycle time will be very low. If the next patient comes in for a medication refill for his anticoagulate medication, then a lab is ordered to obtain the current efficiency of the medication and adjust the dosage accordingly. These patients would come in for the same reason but overall cycle times will vary greatly.
- ii. Measure: Decrease in the number of patients who leave the ED without being seen
  - a. Metric: Left Without Being Seen (LWBS)
    - i. Numerator: Number of patients who present to the ER but are not seen by the Provider
    - ii. Denominator: Total number of patients who presented to the ER for that Midnight to Midnight cycle
    - iii. Data Source: Discharge diagnosis of LWBS in comparison to total number of registered patients per the EMTALA log
    - iv. Rationale/Evidence: Upon tracking the flow of patients and improving the door to doctor times, the LWBS numbers should drop.

**Deleted:** Measure: Improve patient satisfaction (this measure may be moved to Category 3, pending the finalization of Category 3) ¶  
 <#>Metric: Patient Satisfaction Survey¶  
 <#>Numerator: Respondents Score¶  
 <#>Denominator: Respondents¶  
 <#>Data Source: Press Ganey or other Patient Satisfaction Scoring System.¶  
 <#>Rationale/Evidence: DPH systems find that as a direct result of their emergency departments being overcrowded and over capacity, patient experience may not be as good as it could be. As process improvements are made so that patients have increased access to ED care, it may be helpful to measure the impact that has on patient experience.¶

**10. Use Palliative Care Programs**

- Project Goal: 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:**
  - Develop a hospital-specific business case for palliative care and conduct planning activities necessary as a precursor to implementing a palliative care program<sup>62</sup>
  - Implement a Palliative Care Program to address patients with end-of-life decisions and care needs
  - Transition palliative care patients from acute hospital care into home care, hospice or a skilled nursing facility
  - 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
  - Measure how many patients who died in the hospital received a palliative care consult
- **Key Measures:**
  - **Process Measures:**
    - i. Measure: Develop a hospital-specific business case for palliative care and conduct planning activities necessary as a precursor to implementing a palliative care program
      - a. Metric: Business case

**Deleted:** <#>Related Projects:¶  
 <#>Reduce Readmissions (Cat. 4)¶  
 <#>Improve Quality (Cat. 4)¶  
 <#>Reduce Disparities (Cat. 4)¶  
 <#>Redesign to Improve Patient Experience (Cat. 2)¶  
 <#>Improve Patient/Caregiver Experience (Cat. 4)¶  
 <#>Redesign for Cost Containment (Cat. 2)¶  
 <#>Other¶  
 ¶

<sup>62</sup> Palliative care addresses issues of quality of life, symptom management, and psychosocial support. Submit a plan to expand an existing palliative care program.

**Attachment I**  
**Regional Healthcare Partnership (RHP) Planning Protocol**

- i. Submission of business case
    - ii. Data Source: Business case write-up; documentation of planning activities
    - iii. Rationale/Evidence: Studies have established that palliative care reduces the cost of care.<sup>63</sup> It is widely accepted in the field that planning activities are necessary to establish successful palliative care programs.<sup>64</sup>
  - ii. Measure: Implement/expand a palliative care program
    - i. Documentation: Palliative care program exists; palliative care team hired and operational
    - ii. Data Source: Palliative care program
    - iii. Rationale/Evidence: There is widespread evidence that palliative care can improve the quality of care while reducing cost.<sup>65</sup>
  - iii. Measure: Number of palliative care consults
    - a. Metric: Palliative care consults meet targets established by the program
      - i. Numerator: Number of palliative care consults
      - ii. Denominator: Target number of palliative care consults
      - iii. Data Source: EMR, palliative care database
- o **Improvement Measures:**
  - i. Measure: Palliative care patients transitioned from acute hospital care into home care, hospice or a skilled nursing facility (SNF)
    - a. Metric: Transitions accomplished
      - i. Numerator: Number of palliative care discharges to home care, hospice, or SNF
      - ii. Denominator: Total number of palliative care discharges
      - iii. Data Source: EMR, data warehouse, palliative care database
      - iv. 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 because those services often make the most sense given the patient's condition.
  - ii. Measure: Among patients who died in the hospital, increase the proportion of those who received a palliative care consult
    - a. Metric: Percent of total in-hospital deaths who had a palliative care consult
      - i. Numerator: Number of patients who died in the hospital and received at least one palliative care consult
      - ii. Denominator: Number of patients who died in the hospital
      - iii. Data Source: EMR, data warehouse palliative care database
      - iv. 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.
  - iii. Measure: 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
    - a. Metric: Survey developed and implemented; scores increased over time

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<sup>63</sup> For example, see a study by Sean Morrison, et al., <http://www.med-ic.org/pdf/PC1.pdf>

<sup>64</sup> For example, see the website for CDPC (Center to Advance Palliative Care,) <http://www.capc.org/building-a-hospital-based-palliative-care-program/designing>

<sup>65</sup> See <http://www.capc.org>

**Attachment I**  
**Regional Healthcare Partnership (RHP) Planning Protocol**

- i. Result of survey scores
- ii. Data Source: Patient/family experience survey
- iii. Rationale/Evidence: Palliative care has been proven to result in increased patient and family satisfaction.<sup>66</sup>

**11. Conduct Medication Management**

- Project Goal: Manage medications 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**:
  - Put in place the teams, technology and processes
  - Develop criteria and identify targeted patient populations
  - Implement a medication management program
  - Manage medications prior to, at, and after discharge/ED visits
- Key Measures:
  - **Process Measures**:
    - i. Measure: Implement/expand a medication management program and/or system
      - 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.
      - ii. Measure: Develop criteria and identify targeted patient populations
        - 1. 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 medical record citing medication management counseling provided; medication reconciliation documented in paper or electronic medical 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.
        - iii. Measure: Implement a program to improve continuity of medication management from acute care to the ambulatory setting
          - 1. Metric: Written plan to provide medication reconciliation as part of the transition from acute care to ambulatory care
            - a. Numerator: Number of patients who receive medication reconciliation as part of the transition from acute to ambulatory care

**Deleted:** Related Projects:¶  
Reduce Readmissions (Cat. 4)¶  
Improve Quality (Cat. 4)¶  
Reduce Harm from Medical Errors (Cat. 3)¶  
Redesign to Improve Patient Experience (Cat. 2)¶  
Improve Patient/Caregiver Experience (Cat. 4)¶  
Redesign for Cost Containment (Cat. 2)¶  
Other¶

<sup>66</sup> See a Kaiser study linking palliative care and patient satisfaction, at <http://www.kaisersantarosa.org/palliativecarestudy>

**Attachment I**  
**Regional Healthcare Partnership (RHP) Planning Protocol**

- b. Denominator: Number of patients discharged from acute to ambulatory care in a defined time period
- c. Data Source: Paper or electronic medical records
- 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.
- iv. Measure: Redesign triage of medication-related ED visits
  - 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: TBD by [Performing Provider](#)
- v. Measure: Implement a medication refill process
  - 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 empaneled 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 empaneled 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 medical 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.
- vi. Measure: Develop the health information technology claims-based algorithms to identify patients in need of preventive services
- vii. Measure: Develop evidence-based decision rules that will be the clinical content underpinning each point of care decision support message
- viii. Measure: Conduct incremental pilot tests of the point of care decision support system in real time during patient encounters, including structured feedback from primary care providers and patients
- ix. Measure: Roll out the point of care decision support system
  - x. Measure: Evaluation of medication adherence using pharmacy claims-based medication possession rates in practices with at least one year exposure to the decision support +/- the pharmacist intervention and in the usual care control settings
- xi. Measure: Submit a plan to implement bedside barcode scanning
  - 1. Metric: Submission of plan
- xii. Measure: Implement bedside barcode scanning
  - 1. Metric: Number of nursing units with bedside barcode scanning
- xiii. Measure: Implement smart infusion pumps
  - 1. Metric: Percent of infusions (e.g., Patient Controlled Analgesia (PCA) Infusions, epidural and syringe pumps) using smart infusion pumps
- xiv. Measure: Implement safeguards in EHR to ensure compliance with Black Box Warnings.
  - 1. Metric: Safeguards in place for Black Box warnings

**Attachment I**  
**Regional Healthcare Partnership (RHP) Planning Protocol**

- o **Improvement Measures:**
  - i. Measure: Manage medications for targeted patients
    - a. Metric: Number of patients that consistently receive medication management
      - i. Numerator: Number of patients that consistently receive medication management counseling at the point of care
      - ii. Denominator: Number of patients in targeted panel size/patient population (targeted as defined by [Performing Provider](#))
      - iii. Data Source: Paper or electronic medical record
      - iv. 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.
  - ii. Measure: Implement electronic prescription writing at the point of care
    - a. Metric: Number of new and refill prescriptions written and generated electronically
      - i. Numerator: Number of new and refill prescriptions written and generated electronically
      - ii. Denominator: Number of new and refill prescriptions written in a specific time period
      - iii. Data Source: Paper or electronic medical record
      - iv. Rationale/Evidence: If consistently and completely used, electronic prescribing has the potential to reduce medication errors and increase patient compliance with their medication regimen.
  - iii. Measure: Implement electronic medication reconciliation at the point of care
    - a. Metric: Number of patients that receive electronic medication reconciliation at the point of care
      - i. Numerator: Number of patients in panel size/population size that receive electronic medication reconciliation at the point of care
      - ii. Denominator: Number of patients in panel size/population size
      - iii. Data Source: Paper or electronic medical record
      - iv. Rationale/Evidence: Implementing electronic medication reconciliation can help ensure that providers consistently deliver accurate medication reconciliation at the point of care.
  - iv. Measure: Provide reconciliation of medications at discharge
    - a. Metric: Increase number or percent of identified patients that have medications reconciled as a standard part of the discharge process.
      - i. Numerator: Number of targeted patients with medications reconciled (targeted TBD by [Performing Provider](#)) when discharged from a hospitalization.
      - ii. Denominator: Total number of targeted patients hospitalized during a specific time period.
      - iii. Data Source: Discharge paperwork from paper or electronic medical record.
      - iv. 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.
  - v. Measure: Increase number or percent of patients that are covered by clinical pharmacists
    - a. Metric: X% of patients covered by clinical pharmacists

**Attachment I**  
**Regional Healthcare Partnership (RHP) Planning Protocol**

- i. Numerator: Number of targeted patients covered by clinical pharmacists (targeted TBD by Performing Provider)
  - ii. Denominator: Total number of targeted patients
  - iii. Data Source: Paper or Electronic Medical Record indicating patient is assigned to a clinical pharmacist. Appointment records for clinical pharmacy.
- vi. Measure: Measure progress toward therapeutic goal for patients treated
  - a. Metric: TBD by Performing Provider. Progress over a defined period of time from baseline measures (e.g., blood pressure or LDL-cholesterol) to target measure as set by patient and clinical provider.
  - b. Numerator: Number of patients that have made significant progress (as defined by their provider) from their baseline measures to target measure over a defined period of time.
  - c. Denominator: Number of patients in panel/targeted sample size.
  - d. 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.
- vii. Measure: Measure medication ~~Performing Provider~~
- viii. Measure: Measure the number of patient visits for which a medication is prescribed that have medication reconciliation and prescription generation performed electronically
  - i. Numerator: Number of patient visits for which a medication is prescribed have medication reconciliation and prescription generation performed electronically
  - ii. Denominator: Total number of eligible patient visits (eligible as defined by the Performing Provider)
- ix. Measure: Increase number or percent of identified patients that have follow-up
  - i. Numerator: Number of identified patients that have follow-up on medication use (identified as defined by Performing Provider)
  - ii. Denominator: Total number of identified patients
- x. Measure: Increase medication adherence for targeted patients/with a targeted disease
  - i. Numerator: Amount of drug taken by patient.
  - ii. Denominator: Amount of drug the patient should have taken.
- xi. Measure: Increase the number or percent of intravenous infusions that are administered via smart pump

**Deleted:** related visits to the ED  
Metric: TBD by RHP

**12. Implement/Expand Care Transitions Programs**

- Project Goal: Create smooth transitions of care from inpatient to outpatient settings or to alternative inpatient settings (e.g., skilled nursing facilities) so that patients being discharged (or responsible party, as appropriate) understand the care regimen, have follow-up care scheduled, and are at reduced risk for avoidable readmissions.
- Project Options:
  - Develop standardized clinical protocols and care delivery model
  - Integrate information systems so that continuity of care for patients is enabled
  - Develop a system to identify patients being discharged potentially at risk of needing acute care services within 30-60 days
  - Implement discharge planning program and post discharge support program

**Deleted:** Related Projects:¶  
Reduce Readmissions (Cat. 4)¶  
Redesign to Improve Patient Experience (Cat. 2)¶  
Improve Patient/Caregiver Experience (Cat. 4)¶  
Redesign for Cost Containment (Cat. 2)¶  
Other¶

**Attachment I**  
**Regional Healthcare Partnership (RHP) Planning Protocol**

- Key Measures:
  - **Process Measures:**
    - i. Measure: Develop protocols for effectively communicating with patients and families during and post-discharge to improve adherence to discharge and follow-up care instructions
      - a. Metric: Care transitions protocols
        - i. Submission of protocols
        - ii. Data Source: Care transitions program materials
    - ii. Measure: Implement standard care transition processes
      - a. Metric: Care transitions protocols
        - i. Submission of protocols
        - ii. Data Source: Care transitions program materials
    - iii. Measure: 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
      - a. Metric: Care transitions protocols
        - i. Submission of protocols
        - ii. Data Source: Care transitions program materials
    - iv. Measure: Conduct an assessment and establish linkages with community-based organizations to create a support network for targeted patients post-discharge
      - a. Metric: Care transitions assessment
        - i. Submission of assessment
        - ii. Data Source: Care transitions assessment
        - iii. 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.
    - v. Measure: Create a patient stratification system designed to identify patients requiring care management and to accommodate a quicker allocation of resources to those patients with high-risk health care needs
      - a. Metric: Patient stratification system
        - i. Report
    - vi. Measure: Train/designate more ED case managers
      - a. Metric: Number of trained and/or designated ED case managers over baseline
        - i. Data Source: HR, job descriptions, training curriculum
    - vii. Measure: Develop a staffing and implementation plan to accomplish the goals/objectives of the care transitions program
      - a. Metric: Documentation of the staffing plan, which describes the number and types of staff needed and the specific roles of each participant
        - i. Data Source: Staffing and implementation plan.
    - viii. Measure: Improve discharge summary timeliness.
      - a. Metric: Percent discharge summary completion within X hours of discharge.
        - i. Numerator: Number of patients for which discharge summary is complete within X hours of discharge.
        - ii. Denominator: Number of patients discharged
        - iii. Data Source: Automated report from Health Information Services or other
    - ix. Measure: Implement a case management related registry functionality

**Deleted:** from specified medical services.

**Attachment I**  
**Regional Healthcare Partnership (RHP) Planning Protocol**

- a. Metric: Documentation of registry implementation
- o **Improvement Measures:**
  - i. Measure: X% of patients in defined population receives standardized care according to the approved clinical protocols and care delivery model in X% of medical encounters
    - a. Metric: TBD by [Performing Provider](#) based on measure described above
  - ii. Measure: Begin monthly data collection and reporting for chosen metrics. If testing an intervention on a pilot unit, collect and report on monthly data for all discharges from pilot unit
    - a. Metric: TBD by [Performing Provider](#)
      - i. Numerator: TBD by [Performing Provider](#)
      - ii. Denominator: TBD by [Performing Provider](#)
      - iii. Data Source: TBD by [Performing Provider](#)
      - iv. Rationale/Evidence: TBD by [Performing Provider](#)
  - iii. Measure: Demonstrate the integration of information systems by stratifying patient demographic data by process, clinical and/or quality data
    - a. Metric: Report of stratified data
  - iv. Measure: 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
    - a. Metric: Top Chronic Conditions Report
      - i. Submission of report/analysis
  - v. Measure: Identify X% of high users with ambulatory sensitive conditions<sup>67</sup>
    - i. Numerator: Number of high users with ambulatory sensitive conditions identified for care transitions program
    - ii. Denominator: Number of high users with ambulatory sensitive conditions
  - vi. Measure: Link program enrollees to primary care services which utilize the medical home model
    - a. Metric: Number of identified program enrollees assigned to medical homes
      - i. Numerator: Number of identified program enrollees assigned to medical homes
      - ii. Denominator: Total number of identified program enrollees
  - vii. Measure: Increase the number or percent of patients in the case management related registry
    - a. Metric: Increase in the number of patients in the case management related registry; patients may be targeted from ED and inpatient areas
  - viii. Measure: Implement standard care transition processes in specified patient populations.
    - a. Metric: Measure adherence to processes.
      - i. Numerator: Number of patients in defined population receiving care according to standard protocol.
      - ii. Denominator: Number of population patients discharged.
      - iii. Data Source: Hospital administrative data and the patient medical record.

**13. Implement Evidence-based Health Promotion and Disease Prevention Programs**

<sup>67</sup> Admissions for ambulatory sensitive conditions are gaining more attention as an important prevention quality indicator tied to reliable primary care

**Attachment I  
Regional Healthcare Partnership (RHP) Planning Protocol**

- Project Goal: Implement evidence based strategies in areas including the following: diabetes, obesity, tobacco use, prenatal care, birth spacing, health screening and use of evidence based approaches such as use of community health workers, innovations in social media and messaging for targeted populations.
  
- Project Options:
  - Implement evidence-based strategies to increase screenings and referral for targeted populations (e.g., mammography screens, colonoscopies, prenatal alcohol use, etc.)
  - Implement evidence-based strategies to reduce tobacco use.
  - Implement evidence-based strategies to increase early enrollment in prenatal care.
  - Implement evidence-based strategies to reduce low birth weight and preterm birth.
  - Implement evidence based strategies to reduce and prevent obesity in children and adolescents.
  - 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.
  - Establish self-management programs and wellness using evidence-based designs.
  - Engage community health workers in an evidence-based program to increase health literacy of a targeted population.
  
- Key Measures:
  - Process Measures:
    - i. Measure: Development of evidence-based project for targeted population.
      - a. Metric: Document development plan.
        - i. Data Source: Performing Provider evidence of plan
    - ii. Measure: Implement evidence-based project for targeted population
      - a. Metric: Document implementation
        - i. Data Source: Performing Provider contract or other documentation of implementation TBD by Performing Provider.
  
  - Improvement Measures:
    - i. Measure: Identify X number or percent of patients in defined population receiving intervention consistent with evidence-based model.
      - a. Metric: TBD by Performing Provider based on measure described above
    - ii. Measure: Identify impact on target intervention
      - a. Metric: Must be supported by practice-approved measures TBD by Performing Provider.
        - i. Data Source: TBD by Performing Provider.

**Deleted:** Related Projects:¶  
 Reduce Admissions (Cat. 4)¶  
 Reduce Readmissions (Cat. 4)¶  
 Improve Quality (Cat. 4)¶  
 Other¶

**Deleted:** 14. Implement Real-Time Hospital-Acquired Infections (HAIs) System¶  
 Project Goal: To be at the forefront of piloting a real-time clinical intervention system that alerts clinicians to the presence of high-risk patient conditions that can lead to HAIs.<sup>68</sup>¶

Potential Project Elements:¶  
 Pilot a real-time clinical intervention system that alerts clinicians to the presence of high risk patient conditions that can lead to HAIs¶  
 Develop real-time comparison and reconciliation of competing quality indicators for HAIs for real-time feedback to clinicians and improved validity of quality indicators which drive hospital leadership response¶  
 Convert feedback and validation processes to automated systems based upon knowledge gained from Clinical Documentation Specialists¶  
 Provide targeted bathing with chlorhexidine for patients with high risk conditions that can lead to HAIs (such as devices)¶  
 Develop software packages and toolkits that facilitate dissemination to other hospitals¶

Related Projects:¶  
 Reduce Hospital-Acquired Infections (Cat. 3)¶  
 Central Line-Associated Bloodstream Infection Prevention (Cat. 4)¶  
 Surgical Complications Core Processes (Cat. 4)¶  
 Redesign to Improve Patient Experience (Cat. 2)¶  
 Improve Patient/Caregiver Experience (Cat. 3)¶  
 Redesign for Cost Containment (Cat. 2)¶  
 Other¶

Key Measures:¶  
**Process Measures:**¶  
 Measure: Implement prompts for prevention and risk identification / Develop daily nursing prompts to identify presence of any medical device (select at least one metric):¶  
 Metric: Number of prompts or percent of relevant patients detected (e.g., percent of patients with devices detected on point prevalence check on a sample; prompts on HAPU prevention and risk identification)¶  
 Metric: Percent of patients with devices detected on point prevalence check on a total sample of 2 ICUs and 2 non-ICUs¶  
 Numerator: Number of patients with any device detected by automated prompt¶  
 Denominator: Patients on sampled ... [1]

**Attachment I**  
**Regional Healthcare Partnership (RHP) Planning Protocol**

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#### 14. Implement Real-Time Hospital-Acquired Infections (HAIs) System

Project Goal: To be at the forefront of piloting a real-time clinical intervention system that alerts clinicians to the presence of high-risk patient conditions that can lead to HAIs.<sup>1</sup>

##### Potential Project Elements:

Pilot a real-time clinical intervention system that alerts clinicians to the presence of high risk patient conditions that can lead to HAIs

Develop real-time comparison and reconciliation of competing quality indicators for HAIs for real-time feedback to clinicians and improved validity of quality indicators which drive hospital leadership response

Convert feedback and validation processes to automated systems based upon knowledge gained from Clinical Documentation Specialists

Provide targeted bathing with chlorhexidine for patients with high risk conditions that can lead to HAIs (such as devices)

Develop software packages and toolkits that facilitate dissemination to other hospitals

##### Related Projects:

Reduce Hospital-Acquired Infections (Cat. 3)

Central Line-Associated Bloodstream Infection Prevention (Cat. 4)

Surgical Complications Core Processes (Cat. 4)

Redesign to Improve Patient Experience (Cat. 2)

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<sup>1</sup> Locally, this project would provide a robust automated quality improvement infrastructure to improve patient care through several mechanisms. First, it will employ an HAI intervention to prevent device-associated infections and post-surgical infections. Second, it will provide high efficiency accurate feedback about healthcare associated infections to treating physicians, including education about infection prevention processes. This will include both pre-emptive and post-HAI direct-to-clinician education. Third, it will reconcile distinct major quality indicator systems for HAI reporting to allow accurate and trustworthy metrics for response and action by Infection Prevention Programs and hospital leadership. Fourth, it will provide an invaluable infrastructure for quality improvement programs. Nationally, this project has the potential to reconcile and integrate quality measures from a) CDC's NHSN network used for national and state mandatory HAI reporting, and b) CMS quality measures used for hospital ranking as well as value based purchasing and non-payment rules. Importantly, this reconciliation will improve the accuracy and validity of coded data and may pave the pathway for select quality indicator codes to require additional validation for standardization and meaningfulness. Improvement of claims validity will also improve the use of claims in risk adjustment of performance measures for inter-hospital comparison, and will directly apply to the national focus toward meaningful use of electronic health records.

- Category 2 Improvement Projects (continued) -

Improve Patient/Caregiver Experience (Cat. 3)

Redesign for Cost Containment (Cat. 2)

Other

Key Measures:

**Process Measures:**

Measure: Implement prompts for prevention and risk identification / Develop daily nursing prompts to identify presence of any medical device (select at least one metric):

Metric: Number of prompts or percent of relevant patients detected (e.g., percent of patients with devices detected on point prevalence check on a sample; prompts on HAPU prevention and risk identification)

Metric: Percent of patients with devices detected on point prevalence check on a total sample of 2 ICUs and 2 non-ICUs

Numerator: Number of patients with any device detected by automated prompt

Denominator: Patients on sampled units with a device

Measure: Implement Clinical Documentation Specialist review for identified charts (must choose at least one of the following):

Metric: Assess fraction of coded charts meeting specified criteria

Numerator: Patients flagged by Clinical Documentation Specialist review confirmed to have the identified HAI

Denominator: Patients flagged by Clinical Documentation Specialist review

Metric: Implement process for a Clinical Documentation Specialist to review and identify Medicare charts likely to be coded for HAI (for example, selection of central line associated blood stream infection (CLABSI)) and trigger review by Infection Prevention program for presence of CLABSI by CDC National Healthcare Safety Network (NHSN) criteria. Evidence of process provided by example cases adjudicated by both methods.

Measure: Develop semi-automated detection of targeted HAI by flagging charts with select criteria / Develop semi-automated detection of CLABSI due to skin commensals by flagging charts with select NHSN criteria

Measure: Develop a real-time intervention system to track targeted HAIs

Metric: HAI system

Generate report from HAI system

Data Source: HAI system

- Category 2 Improvement Projects (continued) -

Rationale/Evidence: Ideal solutions would incorporate automated systems to target interventions for high risk patients, and provide feedback to clinicians both preemptively and after identified HAI events. Such systems would prompt clinicians to act on current opportunities for prevention and provide relevant education to prevent future events. This may be focused in a particular area, such as non-ICU areas.

Measure: Develop real-time comparison and reconciliation of competing quality indicators for HAIs for real-time feedback to clinicians and improved validity of quality indicators which drive hospital leadership response

Metric: Real-Time Reconciliation

Generate report from HAI system

Data Source: HAI system

Rationale/Evidence: Solutions to improve the validity and effectiveness of HAI quality indicators include a) reconciling CMS and CDC quality indicators for central line associated bloodstream infections (CLABSI), and catheter associated urinary tract infections (CAUTI) and b) instituting real time feedback to clinicians and infection prevention programs for education on primary prevention strategies.

Measure: Establishment of protocols and survey tools for Clinical Documentation Specialists (CDS)

Metric: Protocols and survey tools

Submission of protocols and survey tools

Rationale/Evidence: The value of the CDS includes identifying discrepancies or uncertainties in the written medical record in real time and requesting that clinicians provide clarification in the chart, either during the admission or shortly following hospital discharge.

Measure: Development of system for cross-comparison between HAI indicators

Metric: Compare HAI indicators

Generate report from HAI system

Data Source: HAI system

Measure: Development of electronic system for real time feedback of HAI events to clinicians

Metric: Real-time feedback

Generate report from HAI system

Data Source: HAI system

Measure: Development of electronic system for real time education on HAI prevention to clinicians

Metric: Real-time education

Generate report from HAI system

- Category 2 Improvement Projects (continued) -

Data Source: HAI system

Measure: Initial trending and analysis of HAI quality metrics

Metric: Select HAI quality metrics as referenced by DPH system

Generate report from HAI system

Data Source: HAI system

Measure: Development of shareable toolkits and software for real time reconciliation and feedback

Metric: Toolkits and software

Documentation of toolkits and software

Measure: Develop recognition software to enable electronic identification of medical charts likely to be coded as having HAI. This software would utilize key words and phrases previously recorded by Clinical Documentation Specialists for identifying potential HAI for coding purposes

Metric: Recognition software

Documentation of recognition software

Data Source: Recognition software system

Rationale/Evidence: Automation will also provide an infrastructure by which other domains of coded quality measures can be similarly validated

Measure: Integration of recognition software with automated HAI reconciliation and clinician feedback modules

Metric: Recognition software integration

Documentation of recognition software integration with automated HAI reconciliation

Data Source: HAI system

Measure: Initiate chlorhexidine bathing in non-ICU adult patients with medical devices (such as central lines, urinary catheters)

Metric: Percent of patients provided chlorhexidine

Documentation that prompts function

Data Source: HAI system

Rationale/Evidence: The reduction in skin bacterial counts due to CHG is the likely explanation for a beneficial effect in reducing healthcare-associated pathogens. This effect is expected to be greatest during times where devices or wounds provide portals of entry for bacteria to enter body tissues and cause infection. CHG has been safely used for bathing, showering and dental hygiene for over 50 years. It is an over-the-counter product that is 4% solution intended for direct application to skin as an antimicrobial

- Category 2 Improvement Projects (continued) -

skin cleanser. Numerous studies have shown marked reductions in skin bacteria following serial CHG bathing or showering,<sup>2 3 4 5 6 7 8</sup> and it is widely used as a pre-operative showering agent based upon CDC guidelines that recommend its use.<sup>9</sup> Evidence is mounting that CHG can reduce colonization and infection from a variety of healthcare associated pathogens.<sup>10 11 12 13</sup> Studies have demonstrated a 52-87% reduction in bloodstream infection in ICU patients.<sup>14 86 87 89</sup>

Measure: Automated physician processes to confirm daily necessity of central lines and urinary catheters, with automated prompts for prevention processes when device dwell time exceeds the institutional median dwell time for that device in that particular patient population

Metric: Automated physician processes

Documentation that processes function

Data Source: HAI system

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*- Category 2 Improvement Projects (continued) -*

Measure: Develop baseline measures of central line dwell time for risk stratified patient populations with central lines

Metric: Mean and median dwell time in ICU and/or non-ICU patients

Measure: Implement response to long central line dwell times

Measure: Design automated reporting tool using EMR fields

Milestone: Implement targeted automated nursing and physician reminders on prevention for long dwell times and identified HAI cases

Metric: Measure the percent of devices detected with long dwell time or identified CLABSI whose clinical providers received notification

Numerator: Number of patients with long dwell time or a device-associated HAI whose provider received automated prevention reminders

Denominator: Number of patients with long dwell time or a device-associated HAI

**Improvement Measures:**

Measure: Implement daily chlorhexidine bathing (CHG) of patients with central vascular catheters (CVCs)

Metric: Percent of patients with CVCs detected on point prevalence check on a sample

Numerator: Number of patients with CVCs receiving CHG bathing

Denominator: Number of patients with CVCs on sampled units excluding those actively declining to have chlorhexidine bathing

Milestone: Improve effectiveness of daily nursing prompts to identify presence of medical devices

Metric: Achieve at least 80% automated capture of devices measured by assessing the percent of devices detected on point prevalence check on a total sample of 2 ICUs and 2 non-ICUs

Numerator: Number of devices detected by automated prompt

Denominator: Number of devices in patients on sampled units

Milestone: Implement daily chlorhexidine bathing of patients with central venous catheters (CVCs) as evidenced by presence of standardized order set

Metric: Achieve at least X% capture of patients with CVCs receiving chlorhexidine bathing based upon a point prevalence check of 2 ICUs and 2 non-ICUs in the last quarter of the year.

Numerator: Number of patients with CVCs receiving chlorhexidine bathing

- Category 2 Improvement Projects (continued) -

Denominator: Number of patients with CVCs on sampled units excluding those actively declining to have chlorhexidine bathing

Measure: Measure impact of automated real-time system on HAI rates

Metric: HAI rates

Per CDC NHSN or another available metric

Data Source: HAI system

Rationale/Evidence: Goal is reduce HAI rates so measurement of progress toward that goal will demonstrate whether the technology is successful. This measure is optional because – due to the nature of this project being at the forefront of the industry – it is unknown whether it will be able to do this within five years.

Measure: Increase number of clinicians confirming receipt of real-time feedback of HAI events

Metric: Clinicians confirming real-time feedback

Numerator: Number of clinicians confirming receipt of real-time feedback of HAI events

Denominator: Total number of clinicians confirming receipt of real-time feedback of HAI events

Data Source: TBD by DPH system

Measure: Assessment of HAI rates based upon reconciled vs. non-reconciled metrics

Measure: Implement targeted automated nursing and physician reminders on prevention for long dwell times and identified HAI cases

Metric: Percent of devices detected with long dwell time or identified CLABSI whose clinical providers received notification

Numerator: Number of patients with long dwell time or a device-associated HAI whose provider received automated prevention reminders

Denominator: Number of patients with long dwell time or a device-associated HAI  
Measure: Develop a reconciliation and feedback system to improve the accuracy and credibility of nationally competing HAI quality measures

Metric: Development of a system that can be shared nationally

Documentation of learnings and recommendations

Rationale/Evidence: The importance of a valid quality measure includes: Trustworthiness to drive performance improvement programs; Trustworthiness for clinician buy-in to aim for improvement of these measures; Reconciliation of national quality measures; Validated coding of select claims codes used for national quality measures for inter-hospital comparisons, hospital rankings, and value based purchasing; Improved automated analytic capabilities as valid outcomes can have robust risk adjustment through the use of additional claims data; and Valid coding of claims codes used as quality indicators will eventually allow these codes to be an important example of the meaningful use of electronic health

- *Category 2 Improvement Projects (continued)* -

records.

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