

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

**I. Introduction**

The California Medicaid section 1115 Demonstration special terms and conditions state that the goal of the DSRIP is to “support California’s public hospitals efforts in meaningfully enhancing the quality of care and the health of the patients and families they serve. The program of activity funded by the DSRIP shall be foundational, ambitious, sustainable and directly sensitive to the needs and characteristics of an individual hospital’s population, and the hospital’s particular circumstances; it shall also be deeply rooted in the intensive learning and generous sharing that will accelerate meaningful improvement.” Through the DSRIP, designated public hospital (DPH) systems seek to transform their delivery systems to:

- Be integrated systems of care in which the elements of the system function together in a highly effective manner on an individual and population basis and where patients can receive the right care at the right time, in the right setting;
- Offer timely, proactive, coordinated medical home care from a multi-disciplinary team that is highly adept at managing chronic disease;
- Provide patients with positive health care experiences;
- Deliver proactive and planned prevention and primary care services for all patients, and expand the primary care workforce to increase capacity and enable increased patient access;
- Deliver high-quality care and be an engine for ongoing improvement in quality, safety, and efficiency; and
- Provide equitable care and an equitable opportunity for health that is tailored to patient-specific health care needs, desires and backgrounds in a respectful manner.

In order to achieve this vision, DPH systems’ DSRIP plans include Population-Focused Improvement (Category 3) and Urgent Improvement in Care (Category 4). This work is enabled and bolstered by a broad array of projects related to Innovation and Redesign (Category 2) and Infrastructure Development (Category 1).

This document includes the improvement projects for DSRIP Categories 1-2, from which DPH systems may choose to include in their plans. The projects demonstrate the focus areas, milestones, and metrics represented by the DPH systems’ plans. Each DPH system will provide the rationale for focusing on the particular projects, milestones and metrics most relevant to its population and circumstances. The measures are evidence-based and vetted by nationally recognized organizations where possible; in other cases where measures are remaining to be defined, DPH systems will serve as a learning laboratory to test and validate measures.<sup>1</sup>

The example milestones and metrics listed under projects included in this document are not meant to be adopted by every DPH that chooses that improvement project, but rather demonstrates the use of a “menu set” to arrive at a comprehensive array of potential improvement activities and ways to measure progress. However, it is important to note that the overall undergirding of the interventions (i.e., the models and constructs) is similar across the DPH systems.

Together, these plans, and the delivery system transformation they describe, will position and prepare DPH systems for full implementation of health care reform.

**Interconnection and Shared Orientation of Improvement Projects:**

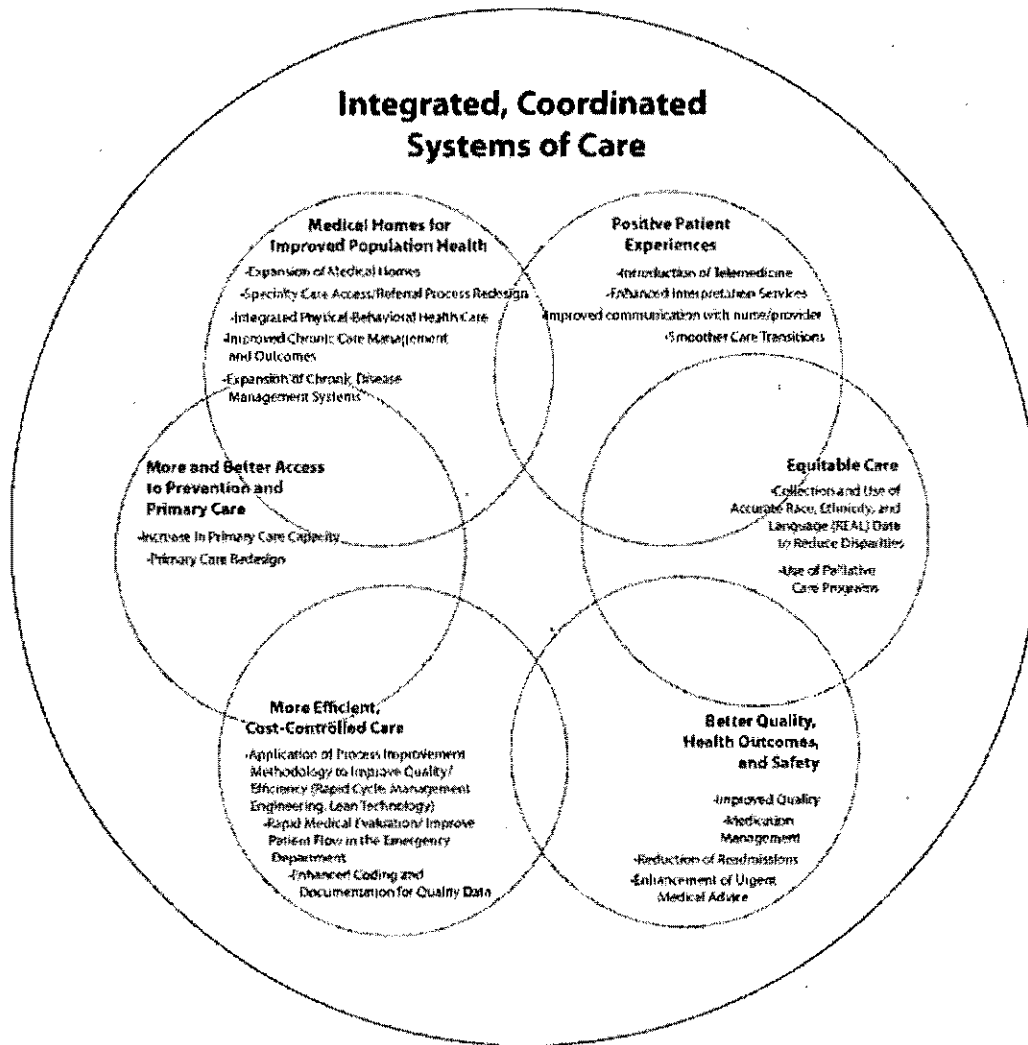
<sup>1</sup> Please see Appendix A: *Evidence-Based Models Implemented by California Public Hospital Systems to Enhance Quality, Promote Coordinated Care, Build Medical Homes and Ensure Access*, below, which was also provided to CMS by the California Health Care Safety Net Institute on November 29, 2010.

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The diagram below demonstrates the interconnection of the improvement projects being pursued by DPH systems, with an overall goal of becoming more integrated, coordinated systems of care, by underscoring:

- While they are highly related projects, each improvement project is distinct;
- All of the proposed improvement projects are oriented to creating more integrated, coordinated delivery systems; and
- Being an integrated delivery system allows DPH systems to more fully enact improved patient experience, population health and cost control.

For purposes of space, the bullet points in the below diagram represent *select*, but not all, Categories 1-4 improvement projects to demonstrate that multiple, complementary initiatives will be occurring in the same facilities simultaneously, reinforcing each other in the transformation of care delivery:



The following pages include the comprehensive Categories 1-2 improvement projects, and Appendix B: Example DSRIP Categories 1-2 Plan samples how the projects will be presented in DPH system plans, which was also provided to CMS on 1/18/11.

**II. Categories 1-2 Required Plan Elements**

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- Based on this Categories 1-2 project list and the *Incentive Pool – Review Process and Program Mechanics* in Attachment P, DPH systems will submit five-year DSRIP plans that describe: (1) the reasons for the selection of the projects, based on gaps, needs, and key challenges; (2) how the projects included in the plan are related to each other and how, taken together, the projects support broad delivery system reform relevant to the patient population; and (3) the progression of the project year over year, including the specifics and exact data source needed per project per measure per metric per year.
- Categories 1-2 each include a menu set of several projects, from which the DPH system would select at its option (please see the following pages). Each DPH system would choose at least two projects in each of the two categories for at least DY 6, DY 7, and DY 8.
  - Each project includes multiple potential Process Measures (process-oriented) and Improvement Measures (results-oriented) from which a DPH system would choose at least one Process Measure and one Improvement Measure. It should be noted that although most Process Measures have one metric, several projects will likely be occurring in a given facility simultaneously, with the result that a series of related metrics will apply.
  - For each project selected for Categories 1-2, DPH system plans must include a robust narrative that includes the following subsections:
    - The Goal(s) for the project, which describes: (1) the specific challenge(s) faced by the DPH system, such as a specific gap, need, or issue; (2) the major delivery system solution(s) identified to address the challenge(s) by implementing the particular project, including explaining how the project will work to fill the gap/need or solve the issue; (3) the starting point of the DPH system(s) related to the project, such as a benchmark, if one exists, and/or the baseline starting no earlier than July 2009 for the Improvement Measures; and (4) the overall target goal and the significance of that goal to the DPH system(s) and its patients. As part of this subsection, each DPH system will provide its reasons for selecting the project, milestones, metrics, improvements, and targeted goals based on relevancy to the DPH system's population and circumstances, community need, and DPH system priority and starting point.
    - Related Projects, which describes how this project supports, reinforces, enables, and is related to other projects and interventions within the DPH system plan. For example, a plan may include the project to Expand Primary Care Capacity in Category 1, and the projects Expanding the Medical Home Model and Redesigning Primary Care in Category 2. The plan could describe how expanding primary care capacity was related to being able to expand the medical home model and redesign primary care, which be occurring in the same clinics, if applicable. Finally, in this component, the plan would, for example, describe how all of these projects in sum are critical to being able to improve preventive screening rates and improve chronic care outcomes, as measured in Category 3. This is because the capacity, access, and efficiency implemented in the primary care clinics – along with restructuring primary care to be delivered in a proactive, organized, population-health focused manner – are foundational to being able to bring in the right patients at the right time to make sure planned, proactive and organized care is delivered.
- In addition to the narrative, the plan will include a Milestones and Metrics Table for each Categories 1-2 project.
  - All projects must include specific, measurable milestones based on projects, measures, metrics, and data sources selected from or otherwise in accordance with this document.

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- The milestones shall be designated by project by year in table format.
- For each milestone, the DPH system plan must include the metric(s) being selected from or otherwise in accordance with the Categories 1-2 Projects document.
- Even though the measure may be selected for more than one year, in each year, the milestone will be uniquely specified to include the particular improvement and specific data source(s) for that year.

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**III. Sample Project**

The DPH system Categories 1-2 plans would resemble the sample project below, as well as the larger sample plan provided as Appendix B in this document:

**Primary Care Redesign: Sample Project Narrative**

- **Goal:** We currently have about 1,800 patients waiting for primary care medical home appointments. It may be difficult for the patient to get a primary care appointment in a timely manner due to traditional office hours and the practice of medicine structured around the physician, not around the patient. In order to address this challenge, Public Hospital System A will redesign primary care to achieve increased efficiencies to maximize the capacity we already have. This plan seeks to build upon work we have started to standardize clinic-level data across Public Hospital System A so that we can better understand cycle time, wait times for primary care, and patient satisfaction. In order to do this, we propose to: (1) Build internal capacity with the resources we already have through implemented efficiencies that will reduce primary care cycle times, patient no-show rates, and days to third next available appointments; and (2) Implement the Patient Centered Scheduling Model so that patients can get in to see their primary care team when needed and when it is convenient for the patient to enable expanded access to primary care. Historically at Public Hospital System A, patient appointment “no-show” rates have been as high as 30%.
- **Expected Result:** Patient “no-show” to appointment rate is less than 10% as a result of improved access when it is convenient for the patient, and due to establishing an ongoing relationship with his/her care team that reinforces continuity of care.
- **Relation to Category 3 Population-Focused Improvement:** With increased access to primary care, patients are better able to receive preventive, primary and ongoing care, developing a continuity of care with their primary care team.

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<i>Sample Project Milestones and Metrics Table: Primary Care Redesign</i>					
Year 1	Year 2	Year 3	Year 4	Year 5	Related Projects
<p>1. <b>Milestone:</b> Develop a plan to build capacity into primary care team schedules, including use of the Patient Centered Scheduling Model and resourcing and training staff in order to reduce patient appointment “no-show” rates</p> <ul style="list-style-type: none"> <li>• <b>Metric:</b> Documentation of the plan, including workplan and timeframes.</li> </ul>	<p>2. <b>Milestone:</b> Achieve at least a 25% or lower patient no-show rate for primary care medical homes<sup>2</sup> due to enhanced continuity of care and lasting relationships established between the provider and the patient</p> <ul style="list-style-type: none"> <li>• <b>Metric:</b> No-show rate               <ul style="list-style-type: none"> <li>○ <b>Numerator:</b> Number of patients who missed an appointment in a medical home session</li> <li>○ <b>Denominator:</b> Number of patients scheduled for each session</li> </ul> </li> </ul>	<p>3. <b>Milestone:</b> Achieve at least a 12% or lower patient no-show rate for primary care medical homes</p> <ul style="list-style-type: none"> <li>• <b>Metric:</b> No-show rate               <ul style="list-style-type: none"> <li>○ <b>Numerator:</b> Number of patients who missed an appointment in a medical home session</li> <li>○ <b>Denominator:</b> Number of patients scheduled for each session</li> </ul> </li> </ul>	<p>4. <b>Milestone:</b> Achieve at least a 10% or lower patient no-show rate for primary care medical homes</p> <ul style="list-style-type: none"> <li>• <b>Metric:</b> No-show rate               <ul style="list-style-type: none"> <li>○ <b>Numerator:</b> Number of patients who missed an appointment in a medical home session</li> <li>○ <b>Denominator:</b> Number of patients scheduled for each session</li> </ul> </li> </ul>	<p>5. <b>Milestone:</b> Maintain 10% or lower patient no-show rate for primary care medical homes in order to demonstrate sustainability of the improvement for at least 4 consecutive quarters</p> <ul style="list-style-type: none"> <li>• <b>Metric:</b> No-show rate               <ul style="list-style-type: none"> <li>○ <b>Numerator:</b> Number of patients who missed an appointment in a medical home session</li> <li>○ <b>Denominator:</b> Number of patients scheduled for each session</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Improve Preventive Screening Rates (Cat. 3)</li> <li>• Improve Chronic Care Outcomes (Cat. 3)</li> <li>• Reduce Readmissions (Cat. 3)</li> </ul>

<sup>2</sup> For this and other milestones using this measure, measurement is determined based on the percentage of the patients scheduled for each session who did not show up for their medical home visit. The rate is an average measured monthly. This measurement would be based on the most recent reporting month.

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**IV. Explanation of the Format of this Document**

As illustrated above, the DPH system will follow the guidelines in this document and provide specificity in its plan. The following Categories 1-2 projects are laid out to include the following components, which provide instruction to the DPH system of what to include in the plan:

- **Goal of Project:** This component describes the purpose of the project. DPH system plans would include narrative description on this component that is specific to that DPH system's starting point, particular circumstances, and its and its patients' needs.
- **Potential Project Elements:** This component describes the types of high-level activities that the DPH systems may undertake in order to accomplish the described goals for the project in their plans.
- **Related Projects:** In order to demonstrate clearly the Interconnection and Shared Orientation of Improvement Projects (see page 2 above), this component describes how the project supports and reinforces other projects/interventions. This component underscores that the projects selected by the DPH system are inter-related and occurring simultaneously, often in the same facilities. This component will also describe how the Categories 1-2 projects selected are foundational to the success of work in Categories 3-4.
- **Key Measures:** This component includes the measures from which the DPH system would choose:
  - **Process Measures:** These measures are important process steps leading toward process results.
  - **Improvement Measures:** These measures are the process (as opposed to clinical) results of the project.
  - **Metric:** For the measure selected, the metric listed would be incorporated by the DPH system plans. However, the DPH system *in its plan* would include the specific targets of the metric.
    - The metric may vary over the life of the project; for example, the targeted patient appointment 'no-show' rate as a result of primary care redesign may be specified as 12% for DY 7 and less than 10% for DY 8 (the goal is to lower the rate).
    - The DPH system may tailor the metric, such as selecting an absolute number or a percentage, as appropriate.
  - **Data Source:** The data source often lists multiple sources that could be used for the data being measured. Please note that these options identify appropriate sources of information, but DPH systems may identify alternative sources that are more appropriate to their individual systems and that provide comparable or better information. The DPH system will specify the exact data source being used for the metric per year in the plan; for example, if the DPH system is expanding health care interpretation, in DY 6 the data source may be submission of the expansion plan, and in DY 7, the data source may be documentation of training 6 additional health care interpreters. In other words, the data source must be specific to the metric being used for that year.
  - **Rationale/Evidence:** This describes why the metric is reasonable, including academic citations, descriptions of how widely used the metric is in the industry, and other reasons why the metric is seen as the appropriate data to meaningfully measure improvement.

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***Additional Measures***

In an effort to avoid repetition, it is permissible for each project to include any one of the following as Measures, in addition to or in lieu of the other Measures listed. Each is in the spirit of continuous improvement, and applying and sharing learnings. If a plan elects to use one or more of these Measures, the DPH system plan would describe the related specifics for the measure, such as the metric and data source:

- a. Process Measures:
  - i. Participate in a collaborative (e.g., in DY 6, Join the Patient Safety First collaborative, as documented by the membership agreement)
  - ii. Conduct a needs/gap analysis, in order to inform the establishment or expansion of services/programs (e.g., in DY6, conduct a gap analysis of high-impact specialty services to identify those in most demand by the local community in order to expand specialty care capacity targeted to those specialties most needed by patients)
  - iii. Pilot a new process and/or program
  - iv. Assess efficacy of processes in place and recommend process improvements to implement, if any (e.g., in DY 8, evaluate whether the primary care redesign methodology was as effective as it could be, by: (1) performing at least two team-based Plan-Do-Study-Act workshops in the primary care clinics; (2) documenting whether the anticipated metric improvements were met; (3) identifying opportunities, if any, to improve on the redesign methodology, as documented by the assessment document capturing each of these items)
  - v. Redesign the process in order to be more effective, incorporating learnings (e.g., in DY 9, incorporate at least one new element into the process based on the assessment, using the process modification process to include the specificity needed as new learnings are discovered in DY 8)
  - vi. Implement a new, improved practice piloted in one or more parts of the DPH system in other parts of the DPH system (e.g., in DY 10, implement improved practices across the Medical Center ambulatory care setting)
  - vii. Share learnings from implementing process improvements, such as through presentations, reporting, etc. (e.g., in DY 8, present the results and findings from the redesign work to at least two peer organizations and/or convenings of peer organizations, as documented by the presentation delivered and the agenda)
  - viii. Establish a baseline, in order to measure improvement over self
  - ix. Complete a planning process/submit a plan, in order to do appropriate planning for the implementation of major infrastructure development or program/process redesign (e.g., in DY 6, complete a planning process for a care navigation program to provide support to patient populations who are most at risk of receiving disconnected and fragmented care)
  - x. Designate/hire personnel or teams to support and/or manage the project/intervention
  - xi. Implement, adopt, upgrade, or improve technology to support the project
  - xii. Develop a new methodology, or refine an existing one, based on learnings
  - xiii. Incorporate patient experience surveying
- b. Improvement Measure: Report on / Improve patient satisfaction/experience (e.g., in DY 10, improve primary care clinic patient satisfaction scores as a result of redesigning clinic visits)

**V. Categories 1-2 Projects**

Please find the Categories 1-2 Projects listed by category below.



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**Proposed Category 1 Improvement Projects**

***Proposed Category 1 Improvement Projects***

Per the California Section 1115 Waiver Terms and Conditions, the purpose of Category 1: Infrastructure Development is “investments in technology, tools and human resources that will strengthen the organization’s ability to serve its population and continuously improve its services.” Therefore, Category 1 would include infrastructure development, including investment in people, places, processes and technology. This category is foundational to the success of Categories 2-4. DPH system plans must describe how the infrastructure development will enhance capacity to conduct, measure and report on quality/performance improvement, expand access to meet demand, and/or enable improved care with strong emphasis on building coordinated systems that promote preventive, primary care.

The following improvement projects as specified would be acceptable for DPH systems to include in their Category 1 plans, using similar formatting as shown below in Appendix B: Example DSRIP Categories 1-2 Plan:

1. Expand Primary Care Capacity .....	11
2. Increase Training of Primary Care Workforce.....	13
3. Implement and Utilize Disease Management Registry Functionality .....	1647
4. Enhance Interpretation Services and Culturally Competent Care .....	1920
5. Collect Accurate Race, Ethnicity, and Language (REAL) Data to Reduce Disparities .....	2223
6. Enhance Urgent Medical Advice .....	2426
7. Introduce Telemedicine.....	2629
8. Enhance Coding and Documentation for Quality Data.....	2830
9. Develop Risk Stratification Capabilities/Functionalities .....	3033
10. Expand Capacity to Provide Specialty Care Access in the Primary Care Setting.....	3235
11. Expand Specialty Care Capacity .....	3437
12. Enhance Performance Improvement and Reporting Capacity .....	3639

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1. Expand Primary Care Capacity

- Goal of Project: Expand the capacity of primary care to better accommodate the needs of the patient population and community so that patients can receive the right care at the right time in the right setting
- Potential Project Elements:
  - Establish more primary care clinics
  - Expand primary care clinic space
  - Expand primary care clinic hours
  - Expand primary care clinic staffing
  - Expand primary care clinic staffing knowledge
- Related Projects (DPH system will specify all of those other category projects this project would feed into):
  - Reduce Readmissions (Cat. 3)
  - Improve Screening Rates (Cat. 3)
  - Improve Chronic Care Management and Outcomes (Cat. 3)
  - Expand Medical Homes (Cat. 2)
  - Redesign Primary Care (Cat. 2)
  - Integrate Physical-Behavioral Health Care (Cat. 2)
  - Redesign for Cost Containment (Cat. 2)
  - Other
- Key Measures:
  - **Process Measures:**
    - i. Measure: Establish additional/expand existing/relocate primary care clinics
      - 1. Metric: Number of additional clinics or expanded hours or space
        - a. Documentation of expansion
        - b. Data Source: New primary care schedule or other hospital document
        - c. Rationale/Evidence: It is well known the national supply of primary care does not meet the demand for primary care services. Moreover, it is a goal of health care reform to provide more preventive and primary care in order to keep individuals and families healthy and therefore avoid more costly ER and inpatient care. DPH systems are in real need of expanding primary care capacity in order to be able to implement the kind of delivery system reforms needed to provide the right care at the right time in the right setting for all patients.
    - ii. Measure: Implement/expand a community/school-based clinics program
      - 1. Metric: Number of additional clinics or expanded hours or space
        - a. Documentation of expansion
        - b. Data Source: New primary care schedule or other hospital document
        - c. Rationale/Evidence: Providing clinics in the community and/or in schools has been shown to be effective because the health care is located conveniently for patients, and is in a setting that is familiar and may feel 'safe'.
    - iii. Measure: Implement/expand a mobile health clinic program
      - 1. Metric: Number of additional clinics or expanded hours or space
        - a. Documentation of expansion
        - b. Data Source: New primary care schedule or other hospital document
        - c. Rationale/Evidence: Many DPH systems cover very large counties, including hundreds of miles. In some areas, it may take patients hours

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to drive to DPH system facilities. Therefore, a mobile clinic offers the benefits of taking the services to the patients, which will help keep them healthy proactively.

- iv. Measure: Expand the hours of a primary care clinic, including both evening and/or weekend hours
    - 1. Metric: Increased number of hours at primary care clinic over baseline
      - a. Data Source: Clinic documentation
      - b. Rationale/Evidence: Expanded hours can not only allow for more patients to be seen, but also provides more choice for patients.
  - v. Measure: Train/hire additional primary care providers and staff and/or increase the number of primary care clinics for existing providers
    - 1. Metric: Documentation of completion of all items described by the DPH system plan for this measure.
      - a. Data Source: Hospital report, policy, contract or other documentation
  - vi. Measure: Implement a nurse triage software system to assist nurses in determining the acuity of patients
    - 1. Metric: Documentation of vendor agreement
      - a. Data Source: Vendor agreement
  - vii. Measure: Establish a nurse advice line and/or primary care patient appointment unit
    - 1. Metric: DPH system administrative reports
  - viii. Measure: Develop automated tracking system for measuring time to next available offered appointment at DPH system primary care medical homes for non-urgent needs
    - 1. Metric: DPH system administrative records from patient scheduling system
  - ix. Measure: Develop and implement a plan for proactive management of adult medicine patient panels through a new Office of Panel Management, such that same-store panel capacity is increased and optimized going forward. This intervention will reopen and optimize use of available adult medicine panel capacity (must include at least one metric):
    - 1. Metric: Documentation of Office of Panel Management plan, staff assignments, policies and procedures. Documentation of the panel status (open/ closed) and panel capacity at points in time.
    - 2. Metric: Documentation of panel management dynamics (counts of additions, deletions, and total paneled patients) and results of initial panel "cleaning".
  - x. Measure: Expand episodic care capacity at primary care clinics.
- o **Improvement Measures:**
- i. Measure: Patient access to primary care by reducing days to third next-available appointment
    - 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 7 calendar days (lower is better), but depending on the DPH system's starting point, that may not be possible within five 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 sites this metric.
  - ii. Measure: Increase primary care clinic volume

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- a. Metric: Number of visits, encounters or size of patient panels over baseline
  - i. Data Source: Registry, EHR, claims or other DPH source
  - ii. Rationale/Evidence: This measures the increased volume.
- iii. Measure: Percent patients receiving urgent care appointment in the primary care clinic (instead of having to go to the ED or an urgent care clinic) within X calendar days of request
- iv. Measure: Achieve a call abandonment rate for the nurse advice line and patient scheduling unit
  - a. Metric: Automated data on call abandonment rate

2. Increase Training of Primary Care Workforce

- Project Goal: The 21 California DPH systems train 43% of new doctors in the state. As we move towards the implementation of health care reform in 2014, the nation will continue to face a major shortage of primary care doctors and nurses due to the needs of an aging population, a decline in the number of medical students choosing primary care, and thousands of aging baby boomers who are doctors and nurses looking towards retirement. The shortage of primary care workforce personnel in California is a critical problem that we have the opportunity to begin addressing under the next waiver. California barely meets the nationally recognized standard for supply of primary care physicians. Over the last several years, it has become difficult for public hospitals to recruit and hire primary care physicians. The shortage of primary care providers has contributed to increased wait times in public hospital clinics. Expanding the primary care workforce will increase access and capacity, and help create an organized structure of primary care providers, clinicians and staff. Moreover, it will strengthen an integrated health care system and play a key role in implementing disease management programs. The new primary care workforce will also be trained to operate in patient-centered medical homes. A greater focus on primary care will be crucial to the success of an integrated health care system under health care reform. As more patients are covered under the Affordable Care Act, it will be essential to increase the number of primary care workforce personnel in order to meet the demands and needs of these newly covered patients. Furthermore, in order to effectively operate in a medical home model, there is a need for residency and training programs to enable expanded capabilities of primary care providers and other staff to effectively provide team-based care and manage population health. Therefore, the need to expand the responsibilities of primary care workforce members will be even more important. In summary, the goal for this project is to train more workforce members to serve as primary care providers, clinicians, and staff to help address the substantial primary care workforce shortage, *and* to update training programs to include more organized care delivery models. This project may apply to primary care physicians (including residents in training), nurse practitioners, physician assistants, and other clinicians/staff (e.g., health coaches, *promotoras*) in the following service areas: family medicine, internal medicine, obstetrics and gynecology, geriatrics, and pediatrics.
- Potential Project Elements:
  - Update primary care training programs to include training on the medical home and chronic care models, disease registry use for population health management, patient panel management, and/or quality/performance improvement
  - Increase the number of primary care residents (i.e., physicians)/trainees (i.e., nurse practitioners, physician's assistants and other clinicians/staff, such as health coaches and *promotoras*)
  - Increase the number of residency/training program faculty/staff to support an expanded, more updated program
  - Increase the number of residents/trainees choosing primary care as a career

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- Establish/expand primary care training programs
- **Related Projects:**
  - Reduce Readmissions (Cat. 3)
  - Improve Screening Rates (Cat. 3)
  - Improve Diabetes Care Management and Outcomes (Cat. 3)
  - Improve Chronic Care Management and Outcomes (Cat. 3)
  - Expand Medical Homes (Cat. 2)
  - Redesign Primary Care (Cat. 2)
  - Expand Primary Care Capacity (Cat. 1)
  - Other
- **Key Measures:**
  - **Process Measures:**
    - i. Measure: Expand primary care training, (must include at least one of the following metrics):
      - a. Metric: Expand the primary care residency, mid-level provider (MLP – physician assistants and nurse practitioners), and/or other clinician/staff (e.g., health coaches, *promotoras*) training programs and/or rotations
        - i. Documentation of applications and agreements to expand training programs
        - ii. Data Source: Training program documentation
        - iii. Rationale/Evidence: Increasing primary care training may help address the primary care workforce shortage.
      - b. Metric: Hire additional precepting primary care faculty members
        - i. Number of additional training faculty/staff members
        - ii. Data Source: HR documents, faculty lists, or other documentation
        - iii. Rationale/Evidence: More faculty is needed to expand training programs.
    - ii. Measure: Expand positive primary care exposure for residents/trainees, (must include at least one of the following metrics):
      - a. Metric: Develop mentoring program with primary care faculty and new trainees
        - i. Documentation of program
        - ii. Data Source: Mentoring program curriculum and/or program participant list
        - iii. Rationale/Evidence: Mentoring programs have been found to foster primary care trainees' interest in pursuing primary care careers.
      - b. Metric: Train trainees in the medical home model, chronic Care Model and/or disease registry use / Primary care trainees participate in medical homes by managing panels
        - i. Documentation of program
        - ii. Data Source: Curriculum, rotation hours, and/or patient panels assigned to resident/trainee
        - iii. Rationale/Evidence: Training programs in primary care should reflect the evolving primary care delivery models.
      - c. Metric: Include trainees/rotations in quality improvement projects
        - i. Documentation of program
        - ii. Data Source: Curriculum and/or quality improvement project documentation/data

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- iii. Rationale/Evidence: Including primary care trainees in quality improvement has been linked to trainee satisfaction with primary care.
- iii. Measure: Develop and implement a curriculum for residents to utilize their practice data to demonstrate skills in quality assessment and improvement
  - a. Metric: Documentation of curricular content in residency program training manuals
- iv. Measure: Implement loan repayment program for primary care providers
  - a. Metric: Documentation of program
    - i. Data Source: Program materials
    - ii. Rationale/Evidence: Loan repayment programs can help to make primary care more attractive.
- v. Measure: Create a primary care career pipeline program for secondary school students (optional – specifications to be provided in DPH system plan)
- vi. Measure: Establish/expand a faculty development program
  - a. Metric: Enrollment of faculty staff into primary care education and training program
    - i. Data Source: Program documents
- vii. Measure: Develop/disseminate clinical teaching tools for primary care or interdisciplinary clinics/sites
  - a. Metric: Clinical teaching tool
    - i. Submission of teaching tools
- viii. Measure: Obtain approval from the Accreditation Council for Graduate Medical Education (ACGME) to increase the number of primary care residents
  - a. Metric: Documentation of ACGME approval for residency position expansion
- o **Improvement Measures:**
  - i. Measure: Increase primary care training and/or rotations (must select one of the following metric):
    - a. Metric: Increase the number of primary care residents and/or trainees, as measured by percent change of class size over baseline. Trainees may include physicians, mid-level providers (physician assistants and nurse practitioners), and/or other clinicians/staff (e.g., health coaches, *promotoras*).
      - i. Data Source: Documented enrollment by class by year by primary care training program
      - ii. Rationale/Evidence: As the goal is to increase the primary care workforce to better meet the need for primary care in the health care system by increasing training of the primary care workforce in California, the metric is a straightforward measurement of increased training.
    - b. Metric: Increase the number of primary care trainees rotating at the DPH system
      - i. Data Source: Student/trainee rotation schedule
    - c. Metric: Increase the number or percent of culturally-competent trainees eligible for existing California residency programs
    - d. Metric: Increase the number of primary care residents and/or trainees, as measured by percent change of class size over baseline or by absolute number
  - ii. Measure: Recruit/hire more trainees/graduates to primary care positions in DPH system
    - a. Metric: Percent change in number of graduates/trainees accepting positions in the DPH system over baseline

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- i. Data Source: Documentation, such as HR documents compared to class lists
    - ii. Rationale/Evidence: A measure of the success of the training program is how many graduates are choosing to practice primary care at the DPH system.
  - iii. Measure: Increase the number/proportion of primary care residency/trainee graduates choosing primary care as a career
    - a. Metric: Number of primary care residency/trainee graduates choosing primary care as a career
      - i. Numerator: Number of class year residency/trainee graduates choosing primary care as a career
      - ii. Denominator: Number of class year residency/trainee graduates
      - iii. Data Source: Program documentation
      - iv. Rationale/Evidence: Measures success of process measures.
  - iv. Measure: Increase the number of faculty staff completing educational courses
    - a. Metric: Number of staff completing courses
  - v. Measure: Increase primary care training in Continuity Clinics,<sup>3</sup> which may be in diverse, low-income, community-based settings, (must include at least one of the following metrics):
    - a. Metric: Add scheduled Continuity Clinic sessions
      - i. Data Source: Number of trainee office visits, such as from registry, EHR, claims data or other reports
      - ii. Rationale/Evidence: Residents/trainees have the opportunity to treat patients in the clinic setting, offering the trainee an option to provide continuing care to his/her patients in order to build continuity with his/her patients.
    - b. Metric: Assign a Continuity Clinic patient panel to primary care residents
      - i. Data Source: Patient panel, registry or EHR
      - ii. Rationale/Evidence: Residents/trainees have the opportunity to treat patients in the clinic setting, offering the trainee an option to provide continuing care to his/her patients in order to build continuity with his/her patients.
    - c. Metric: Increase resident's patient clinic roster

**3. Implement and Utilize Disease Management Registry Functionality**

- Project Goal: Implement infrastructure that supports patient population health, panel management and coordination of care.
- Potential Project Elements:
  - Implement and utilize disease management registry functionalities
  - Enter patient data into the registry
- Related Projects:

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<sup>3</sup> Per the Accreditation Council for Graduate Medical Education (ACGME), "Setting for a longitudinal experience in which residents develop a continuous, long-term therapeutic relationship with a panel of patients." All internal medicine residents typically have continuity clinics. Categorical residents have it just one afternoon per week (often at the hospital-based primary care clinic). Primary care residents have continuity clinic more often during select months and usually have one continuity clinic at the hospital primary care clinic and another off-site (e.g., community or DPH clinic). For more information, please see [http://www.acgme.org/acWebsite/about/ab\\_ACGMEglossary.pdf](http://www.acgme.org/acWebsite/about/ab_ACGMEglossary.pdf).



**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- Define the DPH System Population (Cat. 3)
  - Reduce Readmissions (Cat. 3)
  - Improve Quality (Cat. 3)
  - Reduce Harm from Medical Errors (Cat. 3)
  - Reduce Disparities (Cat. 3)
  - Improve Screening Rates (Cat. 3)
  - Improve Diabetes Care Management and Outcomes (Cat. 3)
  - Improve Chronic Care Management and Outcomes (Cat. 3)
  - Expand Medical Homes (Cat. 2)
  - Expand Chronic Care Management Models (Cat. 2)
  - Conduct Medication Management (Cat. 2)
  - Implement/Expand Care Transitions Programs (Cat. 2)
  - Other
- **Key Measures:**
    - **Process Measures:**
      - i. Measure: Review current registry capability and assess future needs
        - a. Metric: Documentation of review of current registry capability and assessment future registry system needs
      - ii. Measure: Develop cross-functional team to evaluate registry program
        - a. Metric: Documentation of personnel (clinical, IT, administrative) assigned to evaluate registry program
      - iii. Measure: Implement/expand a functional disease registry
        - a. Metric: Disease management registry functionality is available in X% of the DPH system's sites and/or for an expanded number of targeted diseases or clinical conditions
          - i. Potential Numerator: Number of sites with disease management registry functionality
          - ii. Potential Denominator: Total number of sites
          - iii. Registry includes total number of targeted diseases or clinical conditions
          - iv. Data Source: Documentation of adoption, installation, upgrade, interface or similar documentation
          - v. Rationale/Evidence: Utilization of disease registry functionalities helps care teams to actively manage patients with targeted chronic conditions because the disease management registry will include clinician prompts and reminders, which should improve rates of preventive care. Having the functionality in as many sites as possible will enable care coordination for patients as they access various services throughout the system. Registry use can be targeted to clinical conditions/diseases most pertinent to the patient population (e.g., diabetes, hypertension, chronic heart failure).
      - iv. Measure: Demonstrate registry automated reporting ability to track and report on patient demographics, diagnoses, patients in need of services or not at goal, and preventive care status
        - a. Metric: Registry automated report on file
          - i. Data Source: Registry
          - ii. Rationale/Evidence: To be meaningful for panel management and potentially for population health purposes, registry functionality should be able to produce reports for groups or populations of patients that identify clinical indicators.
        - iii. Additional related components :

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

1. Expand registry report services to provide on-demand, operational, and historical capabilities, inclusive of reports to care providers, managers, and executives
  2. Expand registry functionality to include electronic structured documentation and clinical decision support at the point of care
- v. Measure: Conduct staff training on populating and using the registry function
    - a. Metric: Documentation of training programs and list of staff members trained, or other similar documentation
      - i. Data Source: HR or training program materials
      - ii. Rationale/Evidence: Staff need to be trained on appropriate use of the registry functions in order to optimize its use and efficacy.
  - vi. Measure: Making patient data in the registry more accurate
    - a. Metric: Updating patient data based on clinic visit
      - i. Numerator: Number of updated entries
      - ii. Denominator: Number of unique patients that are in the registry
      - iii. Data Source: Registry data report showing entry date
      - iv. Rationale/Evidence: Need accurate data to best measure patient care improvements
  - vii. Measure: Create/disseminate protocols for registry-driven reminders and reports for clinicians and providers regarding key health indicators monitoring and management in patients with targeted diseases (select at least one metric):
    - a. Metric: Documented protocols for the specified conditions and health indicators
      - i. Data Source: Protocols
    - b. Metric: Electronic process in place to correctly identify number or percent of screening tests that require additional follow-up
      - i. Data Source: Process or other reporting documentation
  - viii. Measure: Review future potential registry platforms and select registry platform
    - a. Metric: Documentation of review of registry platforms and selection of future registry platform
  - ix. Measure: Implement cross-functional team to staff registry program
    - a. Metric: Documentation of personnel (clinical, IT, administrative) assigned to staff registry program
  - x. Measure: Plan development of/implement tethered registry to capture patients enrolled in chronic disease management program
    - a. Metric: Documentation of plan / completion of implementation
- o **Improvement Measures:**
- i. Measure: Enter patient data into the registry
    - a. Metric: Number/percentage of patients in the registry; metric may vary in terms of measuring absolute targets versus increasing the proportion of patients meeting a specific criteria (e.g., medical home patients, patients with a targeted chronic condition); below are potential specifications:
      - i. Numerator: Number of patients in registry
      - ii. Denominator: Number of patients assigned to this clinic for routine care (i.e., the clinic is the "medical home")
      - iii. Data Source: Registry or EHR
      - iv. Rationale/Evidence: Supports work of panel management. Establishes patient population for a medical home. (For measurement purposes, a clinic may remove patients from denominator who, once offered a medical home, choose to continue to receive care at multiple sites).

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- ii. 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 DPH system)
- iii. Measure: Spread registry functionality throughout system
  - a. Metric: Implement disease management registry functionality in X% of the DPH sites providing continuity of care for the defined population
    - i. Numerator: Number of sites with disease management registry functionality
    - ii. Denominator: Total number of sites
- iv. Measure: Generate registry-based reports for each provider/care team for the care delivered outside the office visit, which may include historical and peer comparisons for protocols
  - a. Metric: Increase or achieve number or reports sent out to number or percent of primary care providers over the 12-month period.
    - i. Data Source: Registry and/or EMR
- v. Measure: Increase the number of providers/clinicians/staff using the registry
  - a. Metric: Number of staff using the registry
    - i. Data Source: Registry report
    - ii. Rationale/Evidence: The more staff that are using the registry, the most current it will be, and therefore most useful to monitor patients’ conditions. Providers can also monitor their patients across the DPH system – primary care to the hospital.

4. Enhance Interpretation Services and Culturally Competent Care

- Project Goal: Patients have access to timely, qualified health care interpreter services in their primary language, thereby increasing the likelihood of safe and effective care, open communication, adherence to treatment protocols, and good outcomes.
- Potential Project Elements:
  - Identify language access needs and/or gaps in language access
  - Implement language access policies and procedures
  - Increase training related to language access and/or cultural competency/sensitivity
  - Expand language access
- Related Projects:
  - Reduce Disparities (Cat. 3)
  - All Categories 3-4 Projects/Interventions
  - 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. 3)
  - Redesign for Cost Containment (Cat. 2)
  - Use Palliative Care Programs (Cat. 2)
  - Conduct Medication Management (Cat. 2)
  - Implement/Expand Care Transitions Programs (Cat. 2)
  - Collect Accurate REAL Data (Cat. 1)

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

○ Other

● Key Measures:

○ Process Measures:

- i. Measure: Conduct an analysis to determine gaps in language access
  - a. Metric: Gap analysis
    - i. Report results of analysis
    - ii. Data Source: Gap analysis
    - iii. Rationale/Evidence: It is important to identify needs in order to address those needs/gaps.
- ii. Measure: Implement language access policies and procedures
  - a. Metric: Submission of policies and procedures, for example based on *Straight Talk: Model Hospital Policies & Procedures on Language Access*
    - i. Data Source: DPH system policies and procedures
- iii. Measure: Expand qualified health care interpretation technology
  - a. Metric: Video or audio conferencing interpreter terminals and/or areas/units of the DPH system with access to health care interpretation technology, for example:
    - i. Number of hospital departments/health system clinics with video or audio conferencing terminals over baseline
    - ii. Number of total video or audio conferencing terminals over baseline
- iv. Measure: Upgrade hardware systems to function on a wireless network
- v. Measure: Train/certify additional health care interpreters
  - a. Metric: Expand capacity of qualified health care interpretation workforce
    - i. Numerator: Number of trained/certified interpreters
    - ii. Denominator: Total number of trained/certified interpreters
    - iii. Data Source: HR workforce training data, program materials
    - iv. Rationale/Evidence: It is important to make sure staff are fully trained and have the proper certifications necessary to optimize their performance in order to increase language access
- vi. Measure: Train number or proportion of providers and staff to appropriately utilize health care interpreters (via video, phone or in-person)
  - a. Metric: Expand language access utilization
    - i. Numerator: Number of trained providers/staff
    - ii. Denominator: Total number of relevant providers/staff (relevant as defined by DPH system)
    - iii. Data Source: HR workforce training data, program materials
    - iv. Rationale/Evidence: It is important to make sure that providers and staff know when and how to appropriately utilize the qualified health care interpretation services available in order to increase language access.
- vii. Measure: Develop program to improve staff cultural competency and awareness
  - a. Example Metric: Number of champions/staff that are designated and trained in a population's culture and unique needs
    - i. Data Source: HR workforce training data, program materials
    - ii. Rationale/Evidence: Cultural competency and awareness can improve patient-provider/staff communication and help to build trust in order to provide equitable and appropriate health care.
- viii. Measure: Generate prescription labels in a patient's primary language with easy-to-understand directions
  - a. Metric: Number of prescriptions labels translated
    - i. Data Source: Report

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- ii. Rationale/Evidence: Translation enables appropriate use of prescriptions, helping to prevent incorrect use of medications, which can result in serious health conditions. See *Medical Care* (June 2009).
- o **Improvement Measures:**
  - i. Measure: Improve language access (must select at least one metric):
    - a. Metric: The number of qualified health care interpreter encounters per month,<sup>4</sup> based on one of the reporting months within the prior year
      - i. Average number of remote video/voice and/or in-person interpreter encounters recorded per month
      - ii. Data Source: Automated report (such as from Health Care Interpreter Network or Video Medical Interpretation and/or other encounter data report)
      - iii. Rationale/Evidence: Interpreter encounters per month is the current industry standard for how to measure language access. DPH systems know that as a result of high numbers of patients whose primary language is not English, the current provision of interpretations is not meeting the demand. Some DPH systems may have estimated the current need, but all know that more encounters are the targeted improvement. There may be other measures seemingly more meaningful, but these measures have not been directly linked to provision of health care interpretation and may instead be the result of that plus multiple environmental factors. Provision of interpreter services results in patients asking more questions, having a better understanding of treatment plans, and reporting higher patient satisfaction scores (Ku, *Health Affairs*, 2005).
    - b. Metric: The number of remote video/voice and/or in-person interpreter minutes recorded
  - ii. Measure: Increase number or percent visits by Limited English Proficient patients that are facilitated by qualified health care interpreters
    - a. Metric: Expand qualified health care interpretation workforce
      - i. Numerator: The number of visits by Limited English Proficient patients that are facilitated by qualified health care interpreters
      - ii. Denominator: Total number of visits by Limited English Proficient patients
      - iii. Data Source: TBD by DPH system
      - iv. Rationale/Evidence: The metric is one way to potentially measure whether demand and supply are aligned, allowing adjustments to be made so that language access is increased.
  - iii. Measure: Improve Limited English Proficient patients' satisfaction with care and interpreter services
    - a. Metric: Percent change in patient satisfaction scores over baseline

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<sup>4</sup> "Qualified health care interpreter" is defined as one who has: 1) been trained in healthcare interpreting; 2) adheres to the professional code of ethics and protocols of healthcare interpreters; 3) is knowledgeable about medical terminology; and, 4) can accurately and completely render communication from one language to another. This definition can be found in the California Health Care Safety Net Institute's *Straight Talk* recommends hospital policies and procedures to access interpreters that reflect a commitment to language access, including lists of procedures requiring health care interpretation, a definition of qualified health care interpreter, and maximum wait times for the interpretation encounter. Please see <http://www.safetynetinstitute.org/content/Upload/AssetMgmt/Site/Publications/documents/StraightTalkFinal.pdf>

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- i. Data Source: Results of patient satisfaction survey
- iv. Measure: Reduce wait time for interpretation encounters
  - a. Metric: The percentage of encounters where the patient wait time for an interpreter is 15 minutes or less, as specified in *Speaking Together* measures,<sup>5</sup> or Average wait time for interpretation encounter, as measured by *Straight Talk: Model Hospital Policies & Procedures on Language Access*
    - i. Data Source: Interpreter services documentation

5. Collect Accurate Race, Ethnicity, and Language (REAL) Data to Reduce Disparities

- Project Goal: Develop the ability to and collect accurate patient demographic data in a structured format so that it may be stratified by quality/clinical data in order to identify health care process and clinical outcomes disparities.
- Potential Project Elements:
  - Implement a system to stratify patient outcomes and quality measures by patient REAL demographic information in order to identify potential health disparities and develop strategies to ensure equitable health outcomes
  - Collect accurate data on race, ethnicity, and language at the point of care
  - Analyze and report on quality outcomes by REAL data categories to identify potential areas of disparities
  - Develop improvement plans to address key factors contributing to the disparities
  - Target and improve identified health outcome disparities
  - Reduce disparities for target patient populations measured through improved rates of preventive care, patient experience, and/or health outcomes
- Related Projects:
  - Reduce Disparities (Cat. 3)
  - All Categories 3-4 Projects/Interventions
  - Redesign to Improve Patient Experience (Cat. 2)
  - Improve Patient/Caregiver Experience (Cat. 3)
  - Other
- Key Measures:
  - **Process Measures:**
    - i. Measure: Develop REAL data template and/or integrate it into data warehouse, electronic medical record (EMR), and/or registries
      - a. Metric: Develop REAL data template
        - i. Print screen, report, printout or another source of documentation showing capability to integrate REAL data
        - ii. Data Source: REAL database, data warehouse, EMR or registry
        - iii. Rationale/Evidence: The need to collect REAL data is a widely-recognized best practice in the U.S. health care system (e.g., The Joint Commission, the Institute of Medicine, and others). Some extent of REAL data collection is included in both the EHR meaningful use and Affordable Care Act programs.
    - ii. Measure: Modify registration screens in order to increase the collection of consistent, valid and reliable data

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<sup>5</sup> <http://www.rwjf.org/qualityequality/product.jsp?id=29660>

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- a. Metric: Adequate registration screens in place
  - i. Submission of registration print-screen
  - ii. Data Source: Patient registration system
  - iii. Rationale/Evidence: Patient registration is the primary point of entry of patient REAL data.
- iii. Measure: Train staff on the collection of consistent, valid and reliable data
  - a. Metric: Number or proportion of staff trained
    - i. Number or percent of staff trained over baseline
    - ii. Data Source: HR workforce training data
    - iii. Rationale/Evidence: Staff training is crucial to overcome discomfort at collecting REAL data<sup>6</sup>
- iv. Measure: Develop and implement an organizational process to stratify patient outcomes and quality measures by patient REAL demographic information in order to identify potential health disparities and develop strategies to ensure equitable health outcomes / Implement standardized policies and procedures to ensure the consistent and accurate collection of data
  - a. Metric: Description of elements of the system
    - i. Documentation of system/processes being implemented
    - ii. Data Source: Policies, procedures, or other similar sources
    - iii. Rationale/Evidence: In order to stratify quality and safety measures by REAL data, an organization first needs to establish processes to routinely conduct such review.
- v. Measure: Establish REAL sources of accurate point of care data beginning with current Electronic Medical Record as baseline
- vi. Measure: Develop a plan to propagate, establish, and document standard REAL data in all relevant patient care systems participating in enterprise standard registration approach.

o **Improvement Measures:**

- i. Measure: Collect accurate REAL data fields as structured data
  - a. Metric: The number or percent of patients registered at the DPH system hospital and/or health centers
    - i. Numerator: Number of unique patients registered with designated REAL data fields
    - ii. Denominator: Number of total unique patients registered
    - iii. Data Source: Registry, electronic health record, or other registration system
    - iv. Rationale/Evidence: The capacity to stratify quality data by REAL data is foundational to being able to identify, address and eliminate health care disparities. DPH system hospitals are at the forefront of entering REAL structure data to be utilized to improve equity and quality of health care, and multiple DPH systems have begun the process of utilizing this approach.
- ii. Measure: Analyze and report on quality outcomes by REAL data categories to identify potential areas of disparities, (e.g., such as utilization of preventive care, improving patient experience and/or various health outcomes)
  - a. Metric: REAL data analysis
    - i. Documentation of REAL data analysis
    - ii. Data Source: Data warehouse, EMR or registry

<sup>6</sup> See, for example, HRET Disparities Toolkit, <http://www.hretdisparities.org>

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- iii. Rationale/Evidence: Once accurate REAL data are collected on patients, they must be utilized for quality improvement purposes.<sup>7</sup> All DPH systems will have this as a target goal, but depending on starting point, it may not be possible to do this within five years.
- iii. Measure: Develop improvement plans to address key factors contributing to the disparities
  - a. Metric: Identification of health care disparities and plans to address those that are targeted/prioritized
    - i. Number of identified disparities and documentation of plans
    - ii. Data Source: REAL database, data warehouse, EMR or registry
    - iii. Rationale/Evidence: The purpose of identifying disparities is to ultimately eliminate them through effective quality improvement efforts. All DPH systems will have this as a target goal, but depending on starting point, it may not be possible to do this within five years.

6. Enhance Urgent Medical Advice

- Project Goal: Provide urgent medical advice so that patients who need it can access it telephonically, and an appropriate appointment can be scheduled so that access to urgent medical care is increased and avoidable utilization of urgent care and the ED can be reduced.
- Potential Project Elements:
  - Establish/expand access to medical advice and direction to the appropriate level of care to reduce Emergency Department use for non-emergent conditions and increase patient access to health care.
- Related Projects:
  - Improve Quality (Cat. 3)
  - Redesign to Improve Patient Experience (Cat. 2)
  - Improve Patient/Caregiver Experience (Cat. 3)
  - Redesign for Cost Containment (Cat. 2)
  - Expand Medical Homes (Cat. 2)
  - Other
- Key Measures:
  - **Process Measures:**
    - i. Measure: Establish baseline and metrics
      - a. Metric: TBD by DPH System
    - ii. Measure: Establish clinical protocols
      - a. Metric: Submission of complete protocols
      - b. Rationale/Evidence: The nurse advice line would use the clinical protocols
    - iii. Measure: Train nurses on clinical protocols
      - a. Metric: Number of nurses trained
    - iv. Measure: Expand nurse advice line
      - a. Metric: Nurse advice line
        - i. Numerator: Number of nurses staffing nurse advice line per shift
        - ii. Denominator: Number of patient calls per shift

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<sup>7</sup> See, for example, Disparities Solutions Center's Improving Quality and Achieving Equity: A Guide for Hospital Leaders, <http://www2.massgeneral.org/disparitiessolutions/guide.html>



**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- iii. Data Source: Documentation of nurse advice line staffing levels.
- iv. Rationale/Evidence: Patients will experience expanded access to medical advice and direction to the appropriate level of care as a result of a higher ratio of nurses to patient calls.
- v. Measure: Expand access to nurse advice line
  - a. Metric: Nurse advice line
    - i. Number of enrolled patients who place calls to a nurse advice line
    - ii. Data Source: Nurse advice line call center reports
    - iii. Rationale/Evidence: Patients will experience expanded access to medical advice and direction to appropriate care for perceived urgent medical problems as a result of being able to call a nurse 24 hours.
- vi. Measure: Establish nurse advice line
  - a. Metric: Nurse advice line
    - i. Number of nurses designated to staff a nurse advice line
    - ii. Data Source: HR documents or other documentation demonstrating employed and/or contracted nurses to staff a nurse advice line.
    - iii. Rationale/Evidence: Patients will experience expanded access to medical advice and direction to appropriate care for perceived urgent medical problems as a result of being able to call a nurse 24 hours.
- vii. Measure: Inform and educate patients on the nurse advice line
  - a. Metric: Number or percent of targeted patients informed/educated
    - i. Numerator: Number of targeted patients informed/educated
    - ii. Denominator: Number of targeted patients (targeted as defined by DPH system)
    - iii. Data Source: Documentation in patient's paper or electronic medical record that patient was contacted and received information about accessing the nurse advice line and education about how to use the nurse advice line
    - iv. Rationale/Evidence: Patients who are informed on how to access and utilize a nurse advice line are less likely to seek care for non-emergent conditions in the Emergency Department.
- viii. Measure: Develop/distribute a patient-focused educational newsletter with proactive health information and reminders based on nurse advice line data/generated report identifying common areas addressed by the nurse advice line
  - a. Metric: Number of newsletters sent to patients
    - i. Data Source: Mailer vendor invoice
    - ii. Rationale/Evidence: The nurse advice line can collect important data that may be representative of the types of concerns of the larger, general patient population. By monitoring the types of health care needs addressed through the nurse advice line, broader trends can be identified. Based on that, proactive health care guidance (e.g., when to get a screening test/immunization) can be disseminated to the larger patient population. In essence, this shares the learnings from the nurse advice line and disseminates preventive and other health care guidance to the broader patient population.
- o **Improvement Measures:**
  - i. Measure: Increase in the number of patients that accessed the nurse advice line
    - a. Metric: Utilization of nurse advice line
      - i. Numerator: Number or percent of targeted patients that access the nurse advice line
      - ii. Denominator: Targeted patients (targeted as defined by DPH system)

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- iii. Data Source: TBD by DPH System, but could include Call Center phone and encounter records and appointment scheduling software records
    - iv. Rationale/Evidence: Targeted patients that access and utilize a nurse advice line are less likely to seek care for non-emergent conditions in the Emergency Department.
  - ii. Measure: Increase patients in defined population who utilized the nurse advice line and were given an urgent medical appointment via the nurse advice and appointment line when needed
    - a. Metric: Number of urgent medical appointments scheduled via the nurse advice line
      - i. Numerator: Number of patients in defined population who were scheduled an urgent medical appointment via the nurse advice line
      - ii. Denominator: Total number of patients in defined population (defined by DPH system)
      - iii. Data Source: TBD by DPH System, but could include Call Center phone and encounter records and appointment scheduling software records
      - iv. Rationale/Evidence: Patients in defined population who utilize the nurse advice line and were given an urgent medical appointment when needed are less likely to see non-emergency care in the Emergency Department.
  - iii. Measure: Increase the number of patients that called the nurse advice line with intent to go to the ED for non-emergent conditions who were redirected to non-ED resources
    - a. Metric: Better utilization of health care resources
      - i. Numerator: Number of targeted patients that accessed the nurse advice line who reported intent to go to the ED, but were redirected to non-ED resources
      - ii. Denominator: Total number of targeted patients that accessed the nurse advice line who reported intent to go to the ED
      - iii. Data Source: TBD by DPH system, but could include Call Center phone and encounter records, appointment scheduling software records and Emergency Department medical records.
      - iv. Rationale/Evidence: Patients that access the nurse advice line who reported intent to go to the Emergency Department are being directed to appropriate medical resources.
  - iv. Measure: Increase patient satisfaction (this measure may be moved to Category 3, pending finalization of Category 3)
    - a. Metric: Increase surveyed patients who believed the advice provided was appropriate
      - i. Numerator: Number of surveyed patients who accessed the nurse advice line and reported finding it helpful
      - ii. Denominator: Total number of surveyed/respondents who accessed the nurse advice line
      - iii. Data Source: Survey Tool Results
      - iv. Rationale/Evidence: Patients who report they believed the advice they received was appropriate are more likely to not seek care in the Emergency Room for non-emergent conditions in the future.

7. Introduce Telemedicine

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- Project Goal: Provide electronic health care services to increase patient access to health care.
- Potential Project Elements:
  - Expand/establish telemedicine program to help fill significant gaps in services
- Related Projects:
  - Redesign to Improve Patient Experience (Cat. 2)
  - Improve Patient/Caregiver Experience (Cat. 3)
  - Redesign for Cost Containment (Cat. 2)
  - Increase Specialty Care Access/Redesign Referral Process (Cat. 2)
  - Other
- Key Measures:
  - **Process Measures:**
    - i. Measure: Establish telemedicine program for selected medical service line(s)
      - a. Metric: Telemedicine program for selected medical service line(s)
        - i. Numerator: Number of telemedicine consults available for selected medical service lines
        - ii. Denominator: Number of medical service lines
        - iii. Data Source: Appointment scheduling software records
        - iv. Rationale/Evidence: Establishing telemedicine consults for selected medical service lines expands access to clinicians.
    - ii. Measure: Expand telemedicine program for selected medical service line(s)
      - a. Metric: Telemedicine program for selected medical service line(s)
        - i. Numerator: Number of telemedicine consults available for selected medical service lines
        - ii. Denominator: Number of medical service lines
        - iii. Data Source: Appointment scheduling software records
        - iv. Rationale/Evidence: Establishing telemedicine consults for selected medical service lines expands access to clinicians.
    - iii. Measure: Expand telemedicine program to additional clinics/service lines
      - a. Metric: Telemedicine program to clinics
        - i. Numerator: Number of clinics with telemedicine
        - ii. Denominator: Number of clinics
        - iii. Data Source: Appointment scheduling software records
        - iv. Rationale/Evidence: Expanding to additional clinics allows increased access.
    - iv. Measure: Conduct needs assessment to identify specialties most in need of telemedicine
      - a. Metric: Needs assessment
        - i. Submission of completed needs assessment
        - ii. Data Source: Needs assessment
        - iii. Rationale/Evidence: It is important to expand telemedicine to the most impacted areas in order to have optimal affect.
  - **Improvement Measures:**
    - i. Measure: Increase number of e-consultations
      - a. Metric: Electronic consultations
        - i. Numerator: Number of patients referred to medical specialties electronically that have their referral resolved without being scheduled for an in-person visit

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- ii. Denominator: Number of patients referred to medical specialties electronically
- iii. Data Source: Patient records from electronic referral processing system
- iv. Rationale/Evidence: Increased e-consultations will result in the patient's issue being handled resolved more frequently without need for a face-to-face specialty care an in-person visit with the specialist.
- ii. Measure: Reduce wait times in high-impact specialty for consult for patient's condition
  - a. Metric: Number of days until first available time for review and consult on patient's condition
    - i. Data Source: Appointment scheduling software and or electronic referral management software
    - ii. Rationale/Evidence: Patients are more likely to receive appropriate care when the wait time for review and consult of the condition for which they were referred is shortened.

**8. Enhance Coding and Documentation for Quality Data** (to create a more robust administrative data set of patient safety and quality codes to use for performance improvement)

- Project Goal: Improve coding and documentation of clinical data so that it reflects a more accurate and specialized data set that can be stratified by quality indicators in order to better identify opportunities for quality improvement.
- Potential Project Elements:
  - Conduct data collection and reporting using ICD-9 codes linked to MS-DRGs
  - Implement HIPAA 5010 transaction sets and convert to ICD-10 codes
  - Implement processes and environmental changes to enhance coding and documentation of diagnoses, procedures, and process and outcome measures
- Related Projects:
  - All Categories 3-4 Projects/Interventions
  - Other
- Key Measures:
  - **Process Measures:**
    - i. Measure: Determine whether current information systems that house ICD codes should be converted or upgraded
      - a. Metric: Hospitals will conduct an impact analysis to identify touch points within the hospital system where ICD codes are used and stored. A structured risk assessment process will be conducted to quantify, order and rank the impact to identify whether information systems will be converted or upgraded.
        - i. Submission of analysis
        - ii. Data Source: Analysis
        - iii. Rationale/Evidence: ICD codes are used in administrative, clinical and financial information systems. Ensuring accurate coding in these systems is critical to maintain hospital operations.
  - ii. Measure: Implement HIPPA 5010 transaction sets to be able to communicate with institutions that are able to receive and send such transactions

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- a. Metric: Hospitals will convert to the new HIPAA X12 standard that regulates the electronic transmission of specific health care transactions
  - i. Documentation of conversion, such as print-out or report
  - ii. Data Source: <http://www.cms.gov/ICD10/>
  - iii. Rationale/Evidence: This new standard is a required precursor to mandatory ICD-10 conversion.
- iii. Measure: Develop/implement an education plan and/or curriculum for coding staff, clinical documentation specialists, physicians and other staff
  - a. Metric: Documentation of the education plan and curriculum
- iv. Measure: Train staff on the changes in work flow
  - a. Metric: Identify staff to be formally trained on clinical workflow redesign.
    - i. Number of trained staff
    - ii. Data Source: HR or training program materials
    - iii. Rationale/Evidence: Environmental constraints contribute to coding errors.
- v. Measure: Implement process to enhance coding and documentation of diagnoses, procedures, and process and outcome measures
  - a. Metric: Using a process improvement methodology, identify and rank impact of factors that impact the quality of clinical coding. This may include, but is not limited to, structural characteristics of coding unit, support provided to clinical coders through education, training and resources, and coding quality control mechanisms.
    - i. Data Source: Submission of ranked factors
    - ii. Rationale/Evidence: Evidence suggests organizational factors affect the quality of hospital clinical coding.
- vi. Measure: Modify existing clinical documentation improvement tools for ICD-10
  - a. Metric: Documentation of updated tools
- vii. Measure: Conduct data collection and reporting using ICD-9 codes linked to MS-DRGs
- viii. Measure: Increase utilization of data quality reports to identify data improvement priorities
  - a. Metric: Review data reports quarterly and identify at least three data improvement priorities
    - i. Data Source: Internal data reports
    - ii. Rationale/Evidence: Continuous monitoring will allow hospitals to identify and correct data improvement opportunities.
- ix. Measure: Determine a methodology to calculate costs per MS-DRG clinical conditions
  - a. Metric: Development, documentation and submission of a methodology to calculate costs per MS-DRG clinical conditions
- x. Measure: Designate a project manager for coding/documentation
  - a. Metric: Submission of project manager role/position description, or HR documents
- xi. Measure: Complete an audit of the clinical documentation improvement program
  - a. Metric: Number or percent of records audited to evaluate accuracy of coding in ICD-10
    - i. Numerator: Number of records audited
    - ii. Denominator: Total records
- o **Improvement Measures:**
  - i. Measure: Implement ICD-10 conversion to be able to communicate with institutions that are able to receive such transactions

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- a. Metric: All internal information systems (administrative, financial, and clinical) using ICD-9 codes will either convert to ICD-10 or crosswalk old ICD-9 codes to ICD-10 codes.
  - i. Data Source: <http://www.cms.gov/ICD10/>
  - ii. Rationale/Evidence: Conversion to ICD-10 codes is mandated by CMS and will be required for reimbursement
- ii. Measure: Implement improvement strategies to ensure accurate coding of patient safety indicators
  - a. Metric: Reduce coding errors
    - i. Percent change in coding errors over baseline
    - ii. Data Source: Random chart audits or other coding quality control mechanisms
    - iii. Rationale/Evidence: Accurate coding has important patient care delivery, clinical and reimbursement/financial impacts.
- iii. Measure: Use accurate coding to identify high utilizers of services or high risk patients and then develop and implement clinical pathways to more effectively deliver needed care.
  - a. Metric: Demonstrate utilization of clinical pathways or document clinical pathway in policy and procedure manual as a metric.
    - i. Data Source: Random chart audits or other coding quality control mechanisms
    - ii. Rationale/Evidence: Accurate coding can reveal patterns in utilization that can then help drive improvement efforts that have direct impact on delivery of patient care, clinical outcomes, and reimbursement/financial benefits. Accurate coding has important patient care delivery, clinical and reimbursement/financial impacts.

9. Develop Risk Stratification Capabilities/Functionalities

- Project Goal: To develop the capability to target high-risk patients by collecting accurate patient data and stratifying by health risk indicators.
- Potential Project Elements:
  - Develop criteria to better identify those patients that would benefit from disease management and other special programs
  - Conduct risk stratification for patients with the targeted chronic conditions
  - Apply the risk stratification methodology, produce risk scores for the patients, and assign them to the appropriate medical home and disease management program
- Other Category Projects This Project Can Feed Into:
  - Reduce Readmissions (Cat. 3)
  - Improve Quality (Cat. 3)
  - Reduce Harm from Medical Errors (Cat. 3)
  - Prevent Ventilator Associated Pneumonia (VAP) Infection (Cat. 3)
  - Improve Diabetes Care Management and Outcomes (Cat. 3)
  - Improve Chronic Care Management and Outcomes (Cat. 3)
  - Expand Chronic Care Management Models (Cat. 2)
  - Redesign for Cost Containment (Cat. 2)
  - Implement/Expand Care Transitions Programs (Cat. 2)
  - Other

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- **Key Measures:**
  - **Process Measures:**
    - i. **Measure:** Develop adaptive screening tools for patients with targeted conditions/indicator/criteria
      - a. **Metric:**
        - i. **Numerator:** Number of patients detected as having increased risk by tool
        - ii. **Denominator:** Total number of targeted patients admitted
        - iii. **Data Source:** EHR, trauma registry, ICU database, EHR screening tool database
        - iv. **Rationale/Evidence:** Since many of the subject patients have poor access to primary care, the admission may be an indication of overall worsening health, high-risk behavior and/or poorly managed diseases. By employing an adaptive screening tool using a series of checklists and interventions that is continually tailored for the patients' condition, mechanism of injury and phase of care, immediate prevention of hospital-associated adverse outcomes is possible.
    - ii. **Measure:** Develop and implement risk stratification to identify patient populations who would benefit from specialized medical homes, disease management programs, remote monitoring, and other special programs
    - iii. **Measure:** Develop criteria to better identify those patients that would benefit from disease management and other special programs
  - **Improvement Measures:**
    - i. **Measure:** Conduct risk stratification for number or percent of patients with the targeted chronic conditions
      - a. **Metric:**
        - i. **Numerator:** All major trauma victims successfully screened for targeted conditions.
        - ii. **Denominator:** All major trauma victim admissions
        - iii. **Data Source:** EHR, trauma registry, EHR screening tool results
        - iv. **Rationale/Evidence:** Screening and rapid intervention for at-risk conditions for inpatients have not been funded by traditional insurance or safety-net coverage, despite demonstration of improved outcomes and reduction in costs. Since most of the subject patients have poor access to primary care, the trauma admission may be an indication of overall worsening health, high risk behavior and/or poorly managed diseases. By employing an adaptive computer-based screening tool using a series of checklists and interventions that is continually tailored for the patients' condition, mechanism of injury and phase of care, immediate prevention of hospital-associated adverse outcomes is possible.
    - ii. **Measure:** Apply the risk stratification methodology, produce risk scores for # or % of patients, and assign them to the appropriate medical home and disease management program
    - iii. **Measure:** Using the risk stratification process, order appropriate interventions and make appropriate timely referrals for number or percent of targeted patients with the targeted conditions, such as implementing remote monitoring (telephonic, web or device-based) and appropriate nurse management follow-up of patients with heart failure post inpatient discharge
      - a. **Metric**

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- i. Numerator: All major trauma victims successfully screened for targeted conditions and appropriate referred without recidivism at UCSD or the San Diego Trauma System hospitals.
- ii. Denominator: All major trauma victims successfully screened for targeted conditions and appropriate referred
- iii. Data Source: EHR, trauma registries, EHR screening tool results
- iv. Rationale/Evidence: Safety-net hospital studies have shown that subsets of underprivileged trauma patients have disproportionate rates of readmission, increased hospital costs and excess morbidity and mortality. These adverse outcomes could be reduced by improved screening and management. By employing an adaptive screening tool using a series of checklists and interventions that is continually tailored for the patients' condition, mechanism of injury and phase of care, immediate prevention of hospital-associated adverse outcomes is possible. Appropriate consultations and referrals will be indicated and ordered via the EHR, where available. In addition, long-term plans for secondary prevention of injury and illness can be coordinated for the patient and family, inpatient specialist provider and consultants and primary care providers, and these plans output to patients primary care EHR, where available.

10. Expand Capacity to Provide Specialty Care Access in the Primary Care Setting

- Project Goal: Provide high-demand specialty services within the primary care/medical home setting so that patients can receive some specialty care services concurrent with routine appointments in order to increase patient access to specialty care by avoiding the need for separate specialist visits where possible.
- Potential Project Elements:
  - Provide training to primary care providers to expand their capacity to provide select, basic specialty care within the primary care setting
  - Have high impact specialists regularly rotate through medical homes for team conferences, team training, and patient consultation/co-management
  - Develop clinical management protocols for primary care providers to co-manage patients with specialists
  - Develop a process to enable enhanced communication between primary care providers and specialists on a regular basis
  - Increase clinic hours for select primary care providers to provide expanded care to selected patient population
  - Develop a protocol for primary care providers to co-manage patients with clinical pharmacists for select conditions
- Related Projects:
  - Increase Specialty Care Access/Redesign Referral Process (Cat. 2)
  - Redesign to Improve Patient Experience (Cat. 2)
  - Improve Patient/Caregiver Experience (Cat. 3)
  - Redesign for Cost Containment (Cat. 2)
  - Improve Diabetes Care Management and Outcomes (Cat. 3)
  - Improve Chronic Care Management and Outcomes (Cat. 3)
  - Other
- Key Measures:



**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

**o. Process Measures:**

- i. Measure: Provide training to primary care providers to expand their capacity to provide select, basic specialty care within the primary care setting
  - a. Metric: Training of primary care providers in at least one specialty care area
    - i. Number of trained primary care providers in the specialty care areas selected
    - ii. Data Source: HR, training program materials, or curriculum for training in select medical specialties
    - iii. Rationale/Evidence: Enables an expanded role or expanded/additional clinical expertise for primary care providers.
- ii. Measure: Have specialists from most impacted medical specialties regularly rotate through medical homes for team conferences, team training, and patient consultation/co-management
  - a. Metric: Specialists consulting on cases with primary care providers in primary care clinic/medical home
    - i. Numerator: Number of patient cases jointly reviewed by primary care provider and medical specialist in selected medical specialties
    - ii. Denominator: Number of adult patients seen at the clinic
    - iii. Data Source: Paper or electronic log of number of cases presented at monthly conference tracked over time. The number of referrals made over time as tracked in practice management system, EHR, or other documentation as designated by DPH system. Practice management system, EHR, or other documentation as designated by DPH system to provide the number of adult patients seen at clinic. Patient charts or patient note in electronic medical record.
    - iv. Rationale/Evidence: Primary care providers able to consult with medical specialists on a regular basis refer fewer patients for in-person visits into associated medical specialty clinic. This process could include scheduling a one hour meeting/conference once per month where the primary care provider presents cases to the specialist. The following month, the specialist could do a brief (10-15 minute) presentation/review of the topic brought up in a specific case from the prior month before moving on the case presentations from the current month. The primary care provider would have to have their cases and specific question prepared ahead of time. This could allow 3-4 cases per month to be “jointly reviewed.” And lessons learned could be shared with all—as opposed to 1:1 consultation.
- iii. Measure: Develop clinical management protocols for the most impacted medical specialties jointly created by primary care providers and specialists for the co-management of patients between primary care and targeted medical specialties
  - a. Metric: Clinical Management Protocols for selected medical specialties
    - i. Numerator: Clinic Management Protocols for selected medical specialties
    - ii. Denominator: Total number of medical specialties
    - iii. Data Source: Written Clinical Management Protocol
    - iv. Rationale/Evidence: Patients being co-managed by primary care providers and medical specialists according to a jointly created clinical management protocol are more likely to receive care in the most appropriate setting. Also, a health care system which has engaged their primary care and medical specialty providers to create mutually agreed upon parameters for their respective roles is likely to deliver care in the most appropriate setting.

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- iv. Measure: Conduct specialty care gap assessment
  - a. Metric: Gap assessment
    - i. Submission of completed assessment
    - ii. Data Source: Assessment
    - iii. 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
- o **Improvement Measures:**
  - i. Measure: Number of patients referred for in-person visits into select medical specialty clinic(s)
    - a. Metric: Referrals from primary care into select medical specialties
      - i. Numerator: Number of patients with a given diagnosis who are referred for in-person visits/consultations with select medical specialty clinics
      - ii. Denominator: Total number of patients with the given diagnosis
      - iii. Data Source: eReferral management software and appointment scheduling software
      - iv. Rationale/Evidence: Medical specialty resources will be utilized more appropriately resulting in the prioritization of medical specialty care for patients with conditions that require in-person specialty consults and procedures.

11. Expand Specialty Care Capacity

- Project Goal: To increase the capacity to provide specialty care services to better accommodate the high demand for specialty care services so that patients have increased access to specialty services.
- Potential Project Elements:
  - o Identify high impact/most impacted specialty services<sup>8</sup> and gaps in care and coordination
  - o Expand high impact specialty care capacity in most impacted medical specialties
- Related Projects:
  - o Improve Quality (Cat. 3)
  - o Increase Specialty Care Access/Redesign Referral Process (Cat. 2)
  - o Redesign to Improve Patient Experience (Cat. 2)
  - o Improve Patient/Caregiver Experience (Cat. 3)
  - o Other
- Key Measures:
  - o **Process Measures:**
    - i. Measure: Assess specialty clinic capacity, productivity, and/or care models
      - a. Metric: DPH system administrative records
    - ii. Measure: Collect baseline data for wait times, backlog, and/or return appointments in specialties
      - a. Metric: Establish baseline for performance indicators

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<sup>8</sup> Such as: Cardio, GI, Ortho, Endocrinology, Psychiatry, and Dermatology, and Gastroenterology

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
 Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- i. Numerator: TBD by the DPH system
      - ii. Denominator: TBD by the DPH system
      - iii. Data Source: TBD by the DPH system
      - iv. Rationale/Evidence: TBD by the DPH system
    - iii. Measure: Expand the ambulatory care medical specialties referral management department
      - a. Metric: System/personnel in place to manage referrals into medical specialties
        - i. Numerator: System components/personnel
        - ii. Denominator: Monthly/annual volume of referrals into medical specialties
        - iii. Data Source: Number of FTEs/Written description for process of managing referrals into medical specialties
        - iv. Rationale/Evidence: A robust referral management department can ensure that referrals are processed, reviewed and the patient's clinical issue addressed in a timely manner.
    - iv. Measure: Train primary care providers, specialists and staff on processes, guidelines and technology for referrals and consultations into selected medical specialties
      - a. Metric: Training of staff and providers on referral guidelines, process and technology
        - i. Numerator: Number of staff and providers trained and documentation of training materials
        - ii. Denominator: Total number of staff and providers working in primary care and medical specialty clinics
        - iii. Data Source: Curriculum for training
        - iv. Rationale/Evidence: Training all staff and providers working in primary care and medical specialty clinics on referral guidelines, process, and technology creates the capacity to consistently and uniformly manage all referrals into medical specialties.
    - v. Measure: Launch a specialty care clinic (e.g., pain management clinic)
      - a. Metric: Establish/expand specialty care
        - i. Documentation of new/expanded specialty care clinic
    - vi. Measure: Conduct a specialty care gap analysis based on community need
    - vii. Measure: Implement a specialty care access plan
    - viii. Measure: Complete planning and installation of new specialty systems (e.g., imaging systems)
    - ix. Measure: Establish specialty care guidelines for the high impact/most impacted medical specialties.
      - a. Document guidelines and distribution of guidelines.
    - x. Measure: Provide reports on the number of days to process referrals and/or wait time from receipt of referral to actual referral appointment
      - a. Metric: Reports on file
- o **Improvement Measures:**
  - i. Measure: Increase the number of specialist providers, clinic hours and/or procedure hours available for the high impact/most impacted medical specialties
    - a. Metric: Increase number of specialist providers, clinic hours and/or procedure hours in targeted specialties

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- i. Numerator: Number of specialist providers in targeted specialties over baseline or change in the number of specialist providers in targeted specialties
  - ii. Denominator: Number of monthly or annual referrals into targeted medical specialties clinic or number of specialist providers in targeted specialties at baseline
  - iii. Data Source: HR documents or other documentation demonstrating employed/contracted specialists
  - iv. Rationale/Evidence: Increased number of specialists to meet demand and referral demand for in-person visits and procedures will allow patients to receive more timely services.
- ii. Measure: Increase the number of available specialty appointments by XX for the most impacted specialty clinics
    - a. Metric: Documentation of increase over baseline
  - iii. Measure: Increase the number of referrals of targeted patients to the specialty care clinic
    - a. Metric: Achieve targeted of referrals of targeted patients
      - i. Data Source: Registry and/or paper documentation as designated by DPH system
      - ii. Rationale/Evidence: Targeted patients are at high-risk of admissions and/or readmissions, and getting the patients to the specialty care clinics can help manage their conditions and therefore avoid unnecessary ED utilization, hospitalizations or readmissions.
  - iv. Measure: Reduce the number of specialty clinics with waiting times for next routine appointment
    - a. Metric: Next routine appointment of more than X calendar days and/or to no more than X of X specialty clinics
    - b. Data Source: DPH appointment scheduling system

12. Enhance Performance Improvement and Reporting Capacity

- Project Goal: To expand quality improvement capacity through people, processes and technology so that the resources are in place to conduct, report, drive and measure quality improvement.
- Potential Project Elements:
  - Enhance improvement capacity within people
  - Enhance improvement capacity through technology
- Related Projects:
  - All Categories 2-4 Projects/Interventions
  - Other
- Key Measures:
  - **Process Measures:**
    - i. Measure: Establish a performance improvement office to manage data, improvement trajectory and improvement activities across the hospital system
      - a. Metric: Establishment of office
        - i. Documentation of establishment of office
        - ii. Rationale/Evidence: Having an office responsible for performance improvement will increase organizational capacity to and

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- demonstration organizational commitment to performance improvement activities ongoing.
- ii. Measure: Establish a program for trained experts on process improvements to mentor and train other staff for safety and quality care improvement
    - a. Metric: Train the trainer program established
      - i. Documentation of training program
      - ii. Data Source: HR, training program materials
      - iii. Rationale/Evidence: Ongoing training throughout the organization in quality care improvement will increase capacity for quality improvement activities on an ongoing basis.
  - iii. Measure: Develop reporting methodologies that will enable continuous quality improvement
    - a. Metric: TBD by DPH system
      - i. Numerator: TBD by DPH system
      - ii. Denominator: TBD by DPH system
      - iii. Data Source: Report systems TBD by DPH system
      - iv. Rationale/Evidence: It is important to put in place meaningful measurements of quality improvement to measure progress and drive continuous improvement.
  - iv. Measure: Participate in statewide, public hospital or national clinical database(s) for standardized data sharing
    - a. Metric: Collaborative membership
      - i. Documentation of collaborative membership
      - ii. Data Source: Collaborative membership materials
      - iii. Rationale/Evidence: Participating in a collaborative has been shown to drive targeted and concerted quality improvement activities with the support of peers and the program.
  - v. Measure: Participate in/present to quality/performance improvement conferences, webinars, learning sessions or other venues
    - a. Metric: Number of learning events
      - i. Data Source: Learning events' agendas
      - ii. Rationale/Evidence: It is also important to share the learnings of quality improvement efforts – what worked and what did not work.
  - vi. Measure: Enhance the organizational infrastructure and resources to store, analyze and share the patient experience data, as well as utilize them for quality improvement
    - a. Metric: Patient experience data
      - i. Documentation of methodology for patient experience data collecting and reporting
      - ii. Data Source: TBD by DPH system
      - iii. Rationale/Evidence: It is important to accurately collect patient experience data and have the data in a format that can analyzed in a way to draw meaningful and actionable conclusions.
  - vii. Measure: Hire/train quality improvement staff in well-proven quality and efficiency improvement principles, tools and processes, such as rapid cycle improvement and/or data and analytics staff for reporting purposes (e.g., to measure improvement and trends)
    - a. Metric: Number of staff trained
      - i. Data Source: HR, training programs
      - ii. Rationale/Evidence: It is essential to have in place the resources and brainpower to drive performance improvement work.

o **Improvement Measures:**

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- i. Measure: Implement quality improvement data systems, collection, and reporting capabilities
  - a. Metric: Usable quality improvement data systems
    - i. Generation of report
    - ii. Data Source: Quality improvement data systems
    - iii. Rationale/Evidence: It is important to accurately collect patient experience data and have the data in a format that can analyzed in a way to draw meaningful and actionable conclusions.
- ii. Measure: Create a quality dashboard or scoreboard to be shared with organizational leadership on a regular basis that includes patient satisfaction measures
  - a. Metric: Quality dashboard
    - i. Submission of quality dashboard
    - ii. Data Source: Quality improvement data systems
    - iii. Rationale/Evidence: It is important to accurately collect patient experience data and have the data in a format that can analyzed in a way to draw meaningful and actionable conclusions.

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

**Proposed Category 2 Improvement Projects**

***Proposed Category 2 Improvement Projects***

Per the Waiver Terms and Conditions, the purpose of Category 2 Innovation and Redesign is “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 would include the piloting, testing and spreading of innovative care models.<sup>9</sup>

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.

DPH systems serve unique populations that experience significant challenges associated with poverty, such as psychosocial barriers to health and multiple concurrent medical conditions. These institutions 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 learnings in order to spread promising practices.

The following improvement projects as specified would be acceptable for DPH systems to include in their Category 2 plans, using similar formatting as shown below in Appendix B: Example DSRIP Categories 1-2 Plan:

1. Expand Medical Homes .....	40
2. Expand Chronic Care Management Models.....	46
3. Redesign Primary Care.....	52
4. Redesign to Improve Patient Experience .....	56
5. Redesign for Cost Containment .....	60
6. Integrate Physical and Behavioral Health Care.....	62
7. Increase Specialty Care Access/Redesign Referral Process.....	69
8. Establish/Expand a Patient Care Navigation Program .....	74
9. Apply Process Improvement Methodology to Improve Quality/Efficiency .....	76
10. Improve Patient Flow in the Emergency Department/Rapid Medical Evaluation .....	79
11. Use Palliative Care Programs.....	82
12. Conduct Medication Management .....	84
13. Implement/Expand Care Transitions Programs.....	88
14. Implement Real-Time Hospital-Acquired Infections (HAIs) System .....	90

**1. Expand Medical Homes<sup>10</sup>**

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<sup>9</sup> Please reference Appendix A: *Evidence-Based Models Implemented by California Public Hospital Systems to Enhance Quality, Promote Coordinated Care, Build Medical Homes and Ensure Access*, below.

<sup>10</sup> Please see Appendix A below for a summary description.



**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- **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 ED visits, incur fewer avoidable hospital stays, and report a greater patient experience of care.
- **Potential Project Elements:**
  - 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>11</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
- **Related Projects:**
  - Reduce Readmissions (Cat. 3)
  - Improve Screening Rates (Cat. 3)
  - Improve Diabetes Care Management and Outcomes (Cat. 3)
  - Improve Chronic Care Management and Outcomes (Cat. 3)
  - Expand Chronic Care Management Models (Cat. 2)
  - Redesign Primary Care (Cat. 2)
  - Redesign to Improve Patient Experience (Cat. 2)
  - Improve Patient/Caregiver Experience (Cat. 3)
  - Integrate Physical and Behavioral Health Care (Cat. 2)
  - Other
- **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>12</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 at member hospitals.
    - ii. **Measure: Put in place policies and systems to enhance patient access to the medical home**
      - 1. **Metric: Hospital policies on medical home**
        - a. Documentation of hospital policies on medical home
        - b. Data Source: Organizations’ “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.

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<sup>11</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.

<sup>12</sup> NAPH Research Brief February 2010 *Safety Net Medical Homes Establish “Medical Homes”*

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

iii. Measure: Reorganize staff into primary care teams responsible for the coordination of patient care

I. Metric: Primary care team

- a. Numerator: Number of staff organized into care teams
- b. Denominator: Total number of staff
- 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>13</sup> It is clear that primary care physicians in the 15-minute visit can no longer do what their patients expect and deserve.”<sup>14</sup>

iv. Measure: Expand and redefine the roles and responsibilities of primary care team members

I. 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>15</sup> It is clear that primary care physicians in the 15-minute visit can no longer do what their patients expect and deserve.”<sup>16</sup> Additionally, “basic 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

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<sup>13</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>14</sup> California Health Care Foundation, *Building Teams in Primary Care: Lessons Learned*, Thomas Bodenheimer, July 2007.

<sup>15</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>16</sup> California Health Care Foundation, *Building Teams in Primary Care: Lessons Learned*, Thomas Bodenheimer, July 2007

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Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

patient care coordination or the use of the health information technology in patient management.”<sup>17</sup>

- v. Measure: Determine the appropriate panel size<sup>18</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>19</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>20</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>21</sup> patients who have had multiple visits to a clinic; high-risk patients; patients needing care management; high utilizers of health care services;<sup>22</sup> and patients with particular socio-economic, linguistic, and physical needs<sup>23</sup>
    - b. Data Source: Hospital 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.<sup>24</sup> Also, some of these higher risk patients are the highest

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<sup>17</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.

<sup>18</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>19</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>20</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>21</sup> Such as: Diabetes, hypertension, chronic heart failure, obesity, asthma, post-secondary stroke, community-acquired pneumonia (CAP), HIV/AIDS, chronic pain, and depression.

<sup>22</sup> Such as patients who have presented in the ED, been admitted to the hospital, or visited specialty clinics multiple times.

<sup>23</sup> Such as seniors and persons with disabilities, homeless people, and immigrants.

<sup>24</sup> Presentation by Dr. Marcie Levine at SNI’s Seamless Care Initiative Primary Care Workgroup on Empanelment, “Santa Clara Valley Health and Hospital System Empanelment Journey,” Dec 8, 2010.

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
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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 patients who utilized the hospital's medical home resulted in an 80% decrease in hospitalizations and ED visits for the intervention group.<sup>25</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 DPH system
    - 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., Health Care Reform, more Medi-Cal beneficiaries, 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>26</sup> to medical homes
    - 1. Metric: Number or percent of eligible patients assigned to medical homes, where "eligible" is defined by the DPH system
      - 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 DPH system
      - 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

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<sup>25</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.

<sup>26</sup> Many patients seen at public hospital systems 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 of primary care visits within 12-24 months, frequent utilization of emergency services, and/or identified medical needs such as chronic conditions.

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- 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 and for their first patient visit within 60-120 days
    - a. Numerator: Number of new patients contacted within specified days
    - b. Denominator: Total number of new patients
    - c. Data Source: Practice management or scheduling systems, registry, EHR, or other documentation as designated by DPH system
    - d. Rationale/Evidence: It is important to get new patients into the medical 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 7 calendar days (lower is better), but depending on the DPH system'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 site 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 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 DPH system
    - c. Data Source: Practice management system, EHR, or other documentation as designated by DPH system
    - d. Rationale/Evidence: Patients know the professionals on their care team and establish trusting, ongoing relationships to reinforce a continuity of care. Medical home model should enhance continuity.

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- 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 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 DPH system
    - 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 providing by seeking and receiving recognition/accreditation.

**2. Expand Chronic Care Management Models<sup>27</sup>**

- Project Goal: Patients with chronic conditions receive proactive, ongoing care that keep patients healthy and empower patients to self-manage their conditions in order to avoid their health worsening and needing ED or inpatient care.
- Potential Project Elements:
  - 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, by phone or email

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<sup>27</sup> Please see Appendix A below for a summary description of the chronic Care Model. Some chronic diseases included in DPH plans include diabetes, hypertension, heart failure, asthma, post-secondary stroke, community-acquired pneumonia (CAP), HIV/AIDS, and chronic pain.

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- 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
- Redesign rehabilitation delivery model for persons with disability
  
- **Related Projects:**
  - Improve Chronic Care Management and Outcomes (Cat. 3)
  - Improve Diabetes Care Management and Outcomes (Cat. 3)
  - Improve Screening Rates (Cat. 3)
  - Reduce Readmissions (Cat. 3)
  - Expand Medical Homes (Cat. 2)
  - Redesign to Improve Patient Experience (Cat. 2)
  - Improve Patient/Caregiver Experience (Cat. 3)
  - Redesign for Cost Containment (Cat. 2)
  - Integrate Physical and Behavioral Health Care (Cat. 2)
  - Other
  
- **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>28</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 improved care, and all five studies with interventions in all four domains had positive impacts on patients.<sup>29</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>30</sup>

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<sup>28</sup> Source: IHI website. Please see <http://www.ihi.org/IHI/Topics/ChronicConditions/AllConditions/Changes/> for more information.

<sup>29</sup> Renders et al, *Diabetes Care*, 2001; 24:1821 and Bodenheimer, Wagner, Grumbach, *JAMA* 2002; 288:1910.

<sup>30</sup> Tsai AC, Morton SC, Mangione CM, Keeler EB. *Am J Manag Care*. 2005 Aug;11(8):478-88.

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development; Innovation and Redesign Improvement Projects

- 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 of relevant staff trained in the Care Model (“relevant” as defined per the DPH system)
    - 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>31</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 improved care, and all five studies with interventions in all four domains had positive impacts on patients.<sup>32</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>33</sup> Also, it has been shown that “planned care for all” can be more effective than “disease-silo” care. For example, the Cherokee Nation adopted a systems approach to diabetes care in 2002, which included many of the concepts in the Improving Patient Care (IPC) change package, such as patient and population management by registered nurse diabetes care managers; evidence-based guidelines; planned visits; care by a multidisciplinary team; diabetes self-management support and education; use of registries for population management; and data-driven improvement, resulting in improved diabetes care and intermediate outcomes.<sup>34</sup>
- 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 DPH system

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<sup>31</sup> Source: IHI website. Please see <http://www.ihl.org/IHI/Topics/ChronicConditions/AllConditions/Changes/> for more information.

<sup>32</sup> Renders et al, *Diabetes Care*, 2001; 24:1821 and Bodenheimer, Wagner, Grumbach, *JAMA* 2002; 288:1910.

<sup>33</sup> Tsai AC, Morton SC, Mangione CM, Keeler EB. *Am J Manag Care*. 2005 Aug. 11(8):478-88.

<sup>34</sup> Please see the IHI website for more information:

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



**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- 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>35</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 rehabilitation setting, therapeutic practice for greater than 3 hours per day/5-6 days a 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 of 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

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<sup>35</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.

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- 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
  - 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>36</sup>
- ii. Measure: Improve the percentage of patients with self-management goals<sup>37</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

<sup>36</sup> Tsai AC, Morton SC, Mangione CM, Keeler EB. *Am J Manag Care*. 2005 Aug. 11(8):478-88.

<sup>37</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.

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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>38</sup>

- iii. Measure: Implement Stroke Medical Home (must include at least one of the following metrics):
  - a. Metric: Antiplatelet medication for secondary stroke prevention
    - 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 min 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 metric):
  - 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 DPH system)

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<sup>38</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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**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.
- **Potential Project Elements:**
  - Implement the patient-centered scheduling model<sup>39</sup> in primary care clinics
  - Implement patient visit redesign<sup>40</sup>
  - Achieve improvements in efficiency, access, continuity of care, and patient experience
- **Related Projects:**
  - Improve Screening Rates (Cat. 3)
  - Improve Diabetes Care Management and Outcomes (Cat. 3)
  - Improve Chronic Care Management and Outcomes (Cat. 3)
  - Expand Medical Homes (Cat. 2)
  - Expand Chronic Care Management Models (Cat. 2)
  - Redesign to Improve Patient Experience (Cat. 2)
  - Improve Patient/Caregiver Experience (Cat. 3)
  - Other
- **Key Measures:**
  - **Process Measures:**
    - 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>41</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 DPH System 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

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<sup>39</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>39</sup> Please see Appendix A below for a summary description.

<sup>40</sup> Ibid.

<sup>41</sup> Please see following pages for the metric specifications.

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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. Public hospital systems 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 DPH System sources
    - 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 DPH System
    - 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. For California’s public hospitals, PVR (done in combination with the Institute for Healthcare Improvement’s Breakthrough Series Collaborative model for rapid

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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.

- 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
- o **Improvement Measures:**
- i. Measure: Reduce patient appointment no-show rates to 10% 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).
      - 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

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- 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 7 calendar days (lower is better), but depending on the DPH system's starting point, that may not be possible within five 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 sites this metric.
- iii. Measure: Reduce average visit cycle time<sup>42</sup> for primary care clinics to 60 minutes or less – without reducing the time a patients 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 they exit in minutes.
    - ii. Data Source: Practice management or scheduling systems, or another DPH 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 DPH 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: Improve patient satisfaction score (this measure may be moved to Category 3, pending the finalization of Category 3)
  - a. Metric: Patient satisfaction score
    - i. Improved patient satisfaction score over baseline, as measured by survey of patients accessing primary care
    - ii. Data Source: Patient satisfaction score
    - iii. Rationale/Evidence: With increased access to primary care, that is also redesigned around the patient, patient satisfaction may be positively impacted.

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<sup>42</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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- vi. 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 on-line program

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>43</sup>
  - Data and performance measurement
  - Implementing improvements
- Related Projects:
  - All Categories 1-4 Projects/Interventions
- Key Measures:
  - **Process Measures:**
    - i. Measure: Appoint an executive accountable for experience performance
      - 1. Metric: An executive accountable for experience is in place
        - a. Data Source: Org Chart
        - b. Rationale/Evidence: The organizational culture that creates positive patient experience must be driven from the very top of the organization.<sup>44</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

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<sup>43</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>44</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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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
    - 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 into 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

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- 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 DPH system plan to DPH system plan, based on the gaps identified in the assessment (previous bullet) and the assignment of improvement priorities by organization's leaders. Examples include: Develop a new patient experience survey tool or revise and improve the current ones; Translate and/or simplify written surveys to make them more user-friendly to LEP and low-literacy populations; Implement phone surveys and/or focus groups as alternative methodologies to written surveys; Conduct care experience flow mapping;<sup>45</sup> implement a survey of employee experience<sup>46</sup>; Roll out a pilot of real-time electronic methodology for capturing patients' feedback during the process of care;<sup>47</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 the typical public hospital patient populations. Therefore, it is important to test other methodologies that may be more applicable and convenient for typical public hospital patient populations.
- x. Measure: Develop a plan to roll out a regular inquiry into patient experience in a new area of the organization, which currently does not collect patient experience information, for example, primary care clinics
  - 1. Metric: Patient experience expansion plan
    - a. Submission of plan
    - b. Data Source: Plan
    - c. Rationale/Evidence: Patient experience information is currently not obtained from all parts of the organization, and it should be. For example, a DPH system 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 organizational area
  - 1. Metric: Inquiry at regular intervals using methodologies such as: Written surveys, Phone interviews; Focus groups; Care experience flow mapping;<sup>48</sup> Real-time electronic methodology for capturing patients' feedback during the process of care;<sup>49</sup> and/or Another innovative method for obtaining patient experience information

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<sup>45</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>46</sup> For example, see NRC Picker Employee Experience Surveys, available here <http://nrcpicker.com/default2.aspx?DN=1671,3,1,Documents>

<sup>47</sup> For example, TruthPoint, available here <http://www.truth-point.com/truthpoint>

<sup>48</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>49</sup> For example, TruthPoint, available here <http://www.truth-point.com/truthpoint>

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- a. Documentation of inquiry
  - b. Data Source: TBD by DPH system, depending on the methodology selected for patient experience inquiry
  - c. Rationale/Evidence: Patient experience information should be obtained from all parts of the organization.
- 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.)
- I. 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
- I. 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>50</sup> enhancing nurse-nurse and nurse-patient/family communication;<sup>51</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>52</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>53</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
- I. 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

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<sup>50</sup> For example, include patients/families into organizational efficiency projects such as LEAN, or develop an advisory council of patients and families

<sup>51</sup> For example, “Nurse Knowledge Exchange”, available here <http://www.innovations.ahrq.gov/content.aspx?id=1803>

<sup>52</sup> More information available here <http://alwaysevents.pickerinstitute.org/>

<sup>53</sup> For example, Evidence Based Leadership by Studer Group, available here <http://www.studergroup.com/dotCMS/knowledgeAssetDetail?inode=411208>

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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
      - 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 (this measure may be moved to Category 3, pending the finalization of Category 3)-
    - 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.

5. Redesign for Cost Containment

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- **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.
- **Potential Project Elements:**
  - Implement cost-accounting systems to measure intervention impacts
  - Establish a method to measure cost containment
  - Establish a baseline for cost
  - Measure cost containment
- **Related Projects:**
  - Potentially all Categories 3-4 Projects/Interventions
  - Other
- **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 their 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 the hospital delivery system to gauge the impact of quality and efficiency improvement interventions on the cost per unit of service for the delivery component the system 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 the hospital delivery system to effectively measure its progress towards lowering costs.

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- v. Train Finance staff on costing methodologies and define, develop, and document methodologies with departments for allocation of costs to specific services

- o **Improvement Measures:**

- i. Measure: Measure cost containment
  - a. Metric: TBD by DPH system
    - i. Numerator: TBD by DPH system
    - ii. Denominator: TBD by DPH system
    - iii. Data Source: TBD by DPH system
    - iv. Rationale/Evidence: Despite extensive research through the California Health Care Safety Net Institute, 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.

**6. Integrate Physical and Behavioral Health Care**<sup>54</sup>

- Project Goal: Integrate the inter-related components of physical and behavioral health care 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.
- Potential Project Elements:
  - o Implement physical-behavioral health integration pilots
  - o Train primary care providers in behavioral health care
  - o Better identify patients needing behavioral health care
  - o Improve coordination and referral patterns between primary care and behavioral health
  - o Link patients with serious mental illnesses to a medical home or another care management program
- Related Projects:
  - o Reduce Readmissions (Cat. 3)
  - o Improve Quality (Cat. 3)
  - o Reduce Disparities (Cat. 3)
  - o Improve Screening Rates (Cat. 3)
  - o Improve Diabetes Care Management and Outcomes (Cat. 3)
  - o Improve Chronic Care Management and Outcomes (Cat. 3)
  - o Expand Medical Homes (Cat. 2)
  - o Expand Chronic Care Management Models (Cat. 2)
  - o Redesign Primary Care (Cat. 2)
  - o Redesign to Improve Patient Experience (Cat. 2)
  - o Improve Patient/Caregiver Experience (Cat. 3)
  - o Other
- Key Measures:
  - o **Process Measures:**
    - i. Measure: Educate and/or train primary care clinicians in behavioral health care

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<sup>54</sup> Please see Appendix A for a summary description.

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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).
- ii. 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.)
  - iii. Measure: Implement physical-behavioral health integration pilots, such as implementing the IMPACT Model<sup>55</sup> and/or Four Quadrant Model<sup>56</sup>
    1. Metric: Implement the model (may include a model listed below or an alternative model as designated by the DPH system):
      - a. IMPACT Model: Compliance with implementing the five essential components: (1) Collaborative care is the cornerstone of the IMPACT

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<sup>55</sup> Excerpted from the IMPACT website at the University of Washington at <http://impact-uw.org/about/key.html>. 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.

<sup>56</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.

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- model and functions in two main ways; (2) Depression Care Manager; (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).
- iv. **Measure:** Co-locate 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



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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.

- v. 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.
- vi. 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.
- vii. 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

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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.

- viii. 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.
- ix. 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 (Olsson, Sing, and Schlesinger, 1999).
- x. 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.
- xi. 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>57</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).
- xii. 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 County clinic content team.

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<sup>57</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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- xiii. 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.
    - 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>58</sup>
- xiv. 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>59</sup> and/or a another depression screening tool for targeted patients (as defined by DPH system) 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 DPH system
    - 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.

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<sup>58</sup> Adams, et al. University of Tennessee College of Medicine, Chattanooga, Tennessee. *Am Fam Physician*. 2008 Mar 15;77(6):785-792.

<sup>59</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. 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
    - 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 Service 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 DPH system in working with behavioral health counterparts)
    - i. Data Source: Practice management or scheduling systems, or other documentation decided by DPH system and behavioral 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 DPH system
    - 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

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- a. Metric: Number of telepsychiatric consultations
- vii. Measure: Provide primary care patients behavioral health service (must select at least one metric):
  - 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 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 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.

**7. Increase Specialty Care Access/Redesign Referral Process**

- 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.
- Potential Project Elements:
  - Implement transparent, standardized referrals across the system
  - Improve access to specialty care
- Related Projects:
  - Reduce Readmissions (Cat. 3)
  - Improve Quality (Cat. 3)
  - Redesign to Improve Patient Experience (Cat. 2)
  - Improve Patient/Caregiver Experience (Cat. 3)
  - Redesign for Cost Containment (Cat. 2)
  - Other

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- 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: eReferral or other 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 e-referral
        - i. Data Source: E-Referral plan, describes the number and types of and staff and their respective roles needed to implement the system.
      - b. Metric: Development of an implementation plan for e-referral
        - i. Data Source: E-Referral plan, which describes the technical mechanisms needed to operate e-referral system.
    - iii. Measure: Develop the technical capabilities to facilitate electronic referral
      - a. Metric: Demonstrate technical mechanisms to be used to operate e-referral system are in place
        - i. Data Source: TBD by DPH system
        - ii. Rationale/Evidence: In order to implement e-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: eReferral or other referral system
      - iii. Rationale/Evidence: According to a recent University of California at San Francisco (UCSF) report<sup>60</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

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<sup>60</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. 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: Implement the re-design of medical specialty clinics in order to increase operational efficiency, shorten patient cycle time and increase provider productivity.
  - a. Metric: Number of medical specialty clinics that have completed clinic redesign.
    - i. Numerator: Average cycle time of appointments in medical specialty clinics that have undergone re-design.
    - ii. Denominator: Overall average cycle time of appointments in all medical specialty clinics.
    - iii. Data Source: Specialty clinic appointment tracking system.
    - iv. 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.
- vii. Measure: Conduct specialty care gap assessment
  - a. Metric: Gap assessment
    - i. Submission of completed assessment
    - ii. Data Source: Assessment
    - iii. 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
- viii. Measure: Train or education personnel and/or referring providers on referral guidelines
  - a. Metric: Number of personnel/referring providers trained/educated
- ix. 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., e-referral technologies)
    - 1. Metric: Number of primary care and medical specialty clinics with specialty care access programs
      - a. Numerator: Number of primary care and medical specialty clinics with specialty care access programs
      - b. Denominator: Total number of primary and medical specialty clinics
      - c. Data Source: Written workflows of referral management processes, documentation of specialty care access program, documentation of

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- 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 e-referral, 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 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



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- 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 in 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 DPH System
- 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: E-referrals volume
    - a. Numerator: Number of specialty referrals initiated and processed through e-referral technology/system
    - b. Denominator: Total number of specialty referrals
    - c. Data Source: Documentation of referral in e-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 e-Referrals to traditional paper based 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
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.

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- d. Rationale/Evidence: Timely access to medical specialties for patients that cannot be adequately care 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 DPH System

**8. 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.
- Potential Project Elements:
  - 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)
  - Connect patients to medical homes, increase access to primary and specialty care, and increase access to chronic care management
- Related Projects:
  - Redesign to Improve Patient Experience (Cat. 2)
  - Improve Patient/Caregiver Experience (Cat. 3)
  - 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
- Key Measures:
  - **Process Measures:**
    - i. Measure: Establish/expand a health care navigation program to provide support to patient populations who are at most risk of receiving disconnected and fragmented care<sup>61</sup>
      - a. Metric: Number of patients enrolled in the patient navigation program; frequency and intensity of contact with care navigators.

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<sup>61</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)

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- 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>62</sup>
- 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
- 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: DPH 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 DPH system)
      - ii. Denominator: Total number of patients enrolled in the navigator program
      - iii. Data Source: EMR, navigation program database, ED records, inpatient records

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<sup>62</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>

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- iv. Rationale/Evidence: Avoidable hospitalizations and excessive use of ED are seen as key measures of patients' disconnect from the health care systems.<sup>63</sup> As this is an innovative program, it is a good opportunity to measure whether the program can have a direct impact on reducing ED visits/avoidable hospitalizations.
- iii. Measure: Improve patient experience (this measure may be moved to Category 3, pending the finalization of Category 3)
  - a. Metric: Patient experience/satisfaction survey score
    - i. Percent improvement in patient satisfaction scores among patients participating in the navigation program
    - ii. Data Source: Patient satisfaction survey
    - iii. Rationale/Evidence: Navigation services are proven in numerous studies to result in improved patients' experience with care.<sup>64</sup>

9. Apply Process Improvement Methodology to Improve Quality/Efficiency (Rapid Cycle, Management Engineering, Lean Technology)

- Project Goal: Implement continuous performance improvement in order to improve efficiencies, improve quality, improve experience, reduce inefficiencies, and eliminate waste and redundancies.
- Potential Project Elements:
  - Implement a process improvement methodology
  - Measure continuous improvement
- Related Projects:
  - Reduce Readmissions (Cat. 3)
  - Improve Quality (Cat. 3)
  - Reduce Harm from Medical Errors (Cat. 3)
  - Improve Patient Flow in the ED (Cat. 2)
  - Redesign for Cost Containment (Cat. 2)
  - Other
- Key Measures:
  - **Process Measures:**
    - i. Measure: Implement a program to improve efficiencies
      - a. Metric: Performance improvement events
        - i. Number of performance improvement events
        - ii. Data Source: TBD by DPH System
        - iii. Rationale/Evidence: Improving efficiencies 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 can help create more patient access and provider/staff capacity.
    - ii. Measure: Implement a Lean/Kaizen rapid improvement project
      - a. Metric: Kaizen cycle

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<sup>63</sup> For example, see the care transitions work of Eric Coleman, MD, at <http://www.caretransitions.org>

<sup>64</sup> For example, see the study by Jeanne M. Ferrante, et al., <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2430139/>

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- i. Documentation that all of the steps included in the cycle of Kaizen were performed: (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 Kaizen rapid improvement project such as Idea sheets, attendance sheets, daily reports of progress made, final report out. Or documentation of materials produced by the Kaizen event such as new standard workflows.
  - iii. Rationale/Evidence: Developed by Toyota in the 1950s to strengthen automobile manufacturing infrastructure and maximize resources, Lean is an 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. 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>65</sup> Also, Denver Health System has had much success implementing Lean process improvement methodologies.<sup>66</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.

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<sup>65</sup> See: <http://www.chcf.org/publications/2007/12/improving-efficiency-management-engineering-comes-to-the-safety-net#ixzz1IumwfMFJ>

<sup>66</sup> Meyer, Harris, "Life in the 'Lean' Lane: Performance Improvement at Denver Health," *Health Affairs* (November 2010), vol. 29 no. 11, 2054-2060.

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2-- Infrastructure Development, Innovation and Redesign Improvement Projects

- v. Measure: Target specific workflows, processes and/or clinical areas (e.g., the OR) to improve
    - a. Metric: TBD by DPH system
      - i. Numerator: TBD by DPH system
      - ii. Denominator: TBD by DPH system
      - iii. Data Source: TBD by DPH system
      - iv. Rationale/Evidence: TBD by DPH system
  - vi. Measure: Identify/target metric to measure impact of process improvement methodology and establish baseline
    - a. Metric: TBD by DPH system
      - i. Numerator: TBD by DPH system
      - ii. Denominator: TBD by DPH system
      - iii. Data Source: TBD by DPH system
      - iv. Rationale/Evidence: TBD by DPH system
  - vii. Measure: Compare and analyze data, and identify at least one area for improvement
    - a. Metric: Analysis and identification of target area
      - 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 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 DPH system
      - 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>67</sup> Finding a way to measure this impact could be very beneficial.
  - ii. Measure: Measure efficiency and/or cost
    - a. Metric: TBD by DPH system
      - i. Numerator: TBD by DPH system
      - ii. Denominator: TBD by DPH system
      - iii. Data Source: TBD by DPH system
      - 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 DPH system will report on whether the process improvement methodology was able to

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<sup>67</sup> National Priorities Partnership, <http://www.nationalprioritiespartnership.org/PriorityDetails.aspx?id=598>.

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- 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 DPH system 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
    - 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.

**10. 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.
- Potential Project Elements:
  - Analyze ED throughput
  - Increase ED throughput
- Related Projects:
  - Improve Quality (Cat. 3)
  - Other

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- **Key Measures:**
  - **Process Measures:**
    - i. **Measure:** Develop processes and systems to accurately capture ED throughput cycle times<sup>68</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:** California Emergency Physicians Medical Group (CEP) confronted rising patient volumes and limited space by reengineering the patient treatment process, developing the Rapid Medical Evaluation (RME) program. Created in 2002, RME is a proven methodology for reducing wait times by improving patient flow, improving care, and increasing patient satisfaction in the ED, the main tenant being bringing patients to providers as quickly as possible upon arrival to the ED. 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. The benefits reported 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
        - iii. **Rationale/Evidence:** Presentation of data and review ensures data integrity and presentation to our committees allows the facility as a whole to be more aware of patient wait times, reasons for increase/decrease times are discussed.
    - iii. **Measure:** Undertake an initiative to dissect and measure the components of the overall cycle time

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<sup>68</sup> 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.



**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- a. Metric: Analysis of patient flow
    - i. Submission of patient flow diagram
    - ii. Data Source: Patient flow diagram
    - iii. Rationale/Evidence: Analyzing ED throughput first 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>69</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>70</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, 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.
- **Improvement Measures:**
- i. Measure: Reduce ER wait time / Reduce overall ED cycle time for admitted patients
    - a. Metric: Door-to-admission
      - 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 physicians' emergency treatment record for admission decision and our tracking board for time of placement in admission floor bed.
      - iii. Rationale/Evidence: Overall cycle time is easy to measure but hard to interpret results. This is due to several factors of the patients stay. If one patient comes in for a simple medication refill then our cycle time will be very low but 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 ER without being seen
    - a. Metric: Left Without Being Seen (LWBS)

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<sup>69</sup> Such as ESI Triage criteria, which is a simple but very effective five-tier triage system of categorizing patients acuity.

<sup>70</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 we try to 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 will make this data much less useful due to the various treatments required for each patient.

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- 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.
- iii. Measure: Improve patient satisfaction (this measure may be moved to Category 3, pending the finalization of Category 3)
- a. Metric: Patient Satisfaction Survey
    - i. Numerator: Respondents Score
    - ii. Denominator: Respondents
    - iii. Data Source: Press Ganey or other Patient Satisfaction Scoring System.
    - iv. 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.

11. 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.
- Potential Project Elements:
  - Develop a hospital-specific business case for palliative care and conduct planning activities necessary as a precursor to implementing a palliative care program<sup>71</sup>
  - Implement a Palliative Care Program to address our 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
- Related Projects:
  - Reduce Readmissions (Cat. 3)
  - Improve Quality (Cat. 3)
  - Reduce Disparities (Cat. 3)
  - Redesign to Improve Patient Experience (Cat. 2)
  - Improve Patient/Caregiver Experience (Cat. 3)
  - Redesign for Cost Containment (Cat. 2)

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<sup>71</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 Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- Other
- 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
        - 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>72</sup> It is widely accepted in the field that planning activities are necessary to establish successful palliative care programs.<sup>73</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>74</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
  - **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 total 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 conditions.
    - 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

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<sup>72</sup> For example, see a study by Sean Morrison, et al., <http://www.med-ic.org/pdf/PC1.pdf>

<sup>73</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>74</sup> See <http://www.capc.org>

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- 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
    - 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>75</sup>

**12. Conduct Medication Management**

- Project Goal: Manage medications so that patients receive the right medications at the right time across the DPH system in order to reduce medication errors and adverse effects from medication use.
- Potential Project Elements:
  - 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
- Related Projects:
  - Reduce Readmissions (Cat. 3)
  - Improve Quality (Cat. 3)
  - Reduce Harm from Medical Errors (Cat. 3)
  - Redesign to Improve Patient Experience (Cat. 2)
  - Improve Patient/Caregiver Experience (Cat. 3)
  - Redesign for Cost Containment (Cat. 2)
  - Other
- 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

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<sup>75</sup> See a Kaiser study linking palliative care and patient satisfaction, at <http://www.kaisersantarosa.org/palliativecarestudy>

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign-Improvement Projects

- reduce medication errors and increase patient compliance with their medication regimens.
- ii. Measure: Develop criteria and identify targeted patient populations
    - i. 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 regime 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
    - i. 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
      - 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 regime.
  - iv. Measure: Redesign triage of medication-related ED visits
    - i. Metric: TBD by DPH system
      - a. Numerator: TBD by DPH system
      - b. Denominator: TBD by DPH system
      - c. Data Source: TBD by DPH system
      - d. Rationale/Evidence: TBD by DPH system
  - v. Measure: Implement a medication refill process
    - i. 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

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- 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 1 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

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 DPH system)
    - 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 regime.
- 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

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- 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 DPH system) 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 regime 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 will be covered by clinical pharmacists
    - i. Numerator: Number of targeted patients covered by clinical pharmacists (targeted TBD by DPH system)
    - 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 DPH 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-related visits to the ED
  - a. Metric: TBD by DPH System
- viii. Measure: Measure the number of patient visits for which a medication is prescribed 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 DPH system)
- 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 DPH system)
  - 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.

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- xi. Measure: Increase the number or percent of intravenous infusions that are administered via smart pump

13. Implement/Expand Care Transitions Programs

- Project Goal: Create smooth transitions of care from inpatient to outpatient settings so that patients being discharged understand the care regimen, have follow-up care scheduled, and are at reduced risk for avoidable readmissions.
- Potential Project Elements:
  - 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
- Related Projects:
  - Reduce Readmissions (Cat. 3)
  - Redesign to Improve Patient Experience (Cat. 2)
  - Improve Patient/Caregiver Experience (Cat. 3)
  - Redesign for Cost Containment (Cat. 2)
  - Other
- 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 the DPH system so that patients going in and out of the DPH system can receive optimal care, wherever possible.



**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
 Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- 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
  - viii. Metric: Documentation of the staffing plan, which describes the number and types of staff needed and the specific roles of each participant
    - a. Data Source: Staffing and implementation plan.
  - ix. Measure: Improve discharge summary timeliness.
    - a. Metric: Discharge summary completion within X hours of discharge.
      - i. Numerator: Discharge summary complete within X hours of discharge.
      - ii. Denominator: Patients discharged from specified medical services.
      - iii. Data Source: Automated report from Health Information Services.
  - x. Measure: Implement a case management related registry functionality
    - 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 DPH system 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 DPH system
      - i. Numerator: TBD by DPH system
      - ii. Denominator: TBD by DPH system
      - iii. Data Source: TBD by DPH system
      - iv. Rationale/Evidence: TBD by DPH system
  - 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>76</sup>
    - i. Numerator: Number of high users with ambulatory sensitive conditions identified for care transitions program

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<sup>76</sup> Admissions for ambulatory sensitive conditions are gaining more attention as an important prevention quality indicator tied to reliable primary care

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- 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 receives care according to standard protocol.
    - ii. Denominator: Number of population patients discharged.
    - iii. Data Source: Hospital administrative data and the patient medical record.

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>77</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)

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<sup>77</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 NSHN 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.

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- 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:**
    - i. **Measure:** Implement prompts for prevention and risk identification / Develop daily nursing prompts to identify presence of any medical device (select at least one metric):
      - 1. **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)
      - 2. **Metric:** Percent of patients with devices detected on point prevalence check on a total sample of 2 ICUs and 2 non-ICUs
        - a. **Numerator:** Number of patients with any device detected by automated prompt
        - b. **Denominator:** Patients on sampled units with a device
    - ii. **Measure:** Implement Clinical Documentation Specialist review for identified charts (must choose at least one of the following):
      - 1. **Metric:** Assess fraction of coded charts meeting specified criteria
        - a. **Numerator:** Patients flagged by Clinical Documentation Specialist review confirmed to have the identified HAI
        - b. **Denominator:** Patients flagged by Clinical Documentation Specialist review
      - 2. **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.
    - iii. **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
    - iv. **Measure:** Develop a real-time intervention system to track targeted HAIs
      - 1. **Metric:** HAI system
        - a. **Generate report from HAI system**
        - b. **Data Source:** HAI system
        - c. **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.

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- v. 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
  - 1. Metric: Real-Time Reconciliation
    - a. Generate report from HAI system
    - b. Data Source: HAI system
    - c. 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.
- vi. Measure: Establishment of protocols and survey tools for Clinical Documentation Specialists (CDS)
  - 1. Metric: Protocols and survey tools
    - a. Submission of protocols and survey tools
    - b. 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.
- vii. Measure: Development of system for cross-comparison between HAI indicators
  - 1. Metric: Compare HAI indicators
    - a. Generate report from HAI system
    - b. Data Source: HAI system
- viii. Measure: Development of electronic system for real time feedback of HAI events to clinicians
  - 1. Metric: Real-time feedback
    - a. Generate report from HAI system
    - b. Data Source: HAI system
- ix. Measure: Development of electronic system for real time education on HAI prevention to clinicians
  - 1. Metric: Real-time education
    - a. Generate report from HAI system
    - b. Data Source: HAI system
- x. Measure: Initial trending and analysis of HAI quality metrics
  - 1. Metric: Select HAI quality metrics as referenced by DPH system
    - a. Generate report from HAI system
    - b. Data Source: HAI system
- xi. Measure: Development of shareable toolkits and software for real time reconciliation and feedback
  - 1. Metric: Toolkits and software
    - a. Documentation of toolkits and software
- xii. 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
  - 1. Metric: Recognition software
    - a. Documentation of recognition software
    - b. Data Source: Recognition software system
    - c. Rationale/Evidence: Automation will also provide an infrastructure by which other domains of coded quality measures can be similarly validated

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- xiii. Measure: Integration of recognition software with automated HAI reconciliation and clinician feedback modules
  - 1. Metric: Recognition software integration
    - a. Documentation of recognition software integration with automated HAI reconciliation
    - b. Data Source: HAI system
- xiv. Measure: Initiate chlorhexidine bathing in non-ICU adult patients with medical devices (such as central lines, urinary catheters).
  - 1. Metric: Percent of patients provided chlorhexidine
    - a. Documentation that prompts function
    - b. Data Source: HAI system
    - c. 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 skin cleanser. Numerous studies have shown marked reductions in skin bacteria following serial CHG bathing or showering,<sup>78 79 80 81 82 83 84</sup> and it is widely used as a pre-operative showering agent based upon CDC guidelines that recommend its use.<sup>85</sup> Evidence is mounting that CHG can reduce colonization and infection from a variety of healthcare associated pathogens.<sup>86 87 88 89</sup> Studies have demonstrated a 52-87% reduction in bloodstream infection in ICU patients.<sup>90 86 87 89</sup>

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<sup>78</sup> Garibaldi RA. Prevention of intraoperative wound contamination with chlorhexidine shower and scrub. *J Hosp Infect* 1988;11(Suppl B):5-9.

<sup>79</sup> Paulson DS. Efficacy evaluation of a 4% chlorhexidine gluconate as a full-body shower wash. *Am J Infect Control* 1993;21(4):205-9.

<sup>80</sup> Hayek LJ, Emerson JM, Gardner AM. A placebo-controlled trial of the effect of two preoperative baths or showers with chlorhexidine detergent on postoperative wound infection rates. *J Hosp Infect* 1987;10:165-72.

<sup>81</sup> Kaiser AB, Kernodle DS, Barg NL, Petracek MR. Influence of preoperative showers on staphylococcal skin colonization: a comparative trial of antiseptic skin cleansers. *Ann Thorac Surg* 1988;45:35-8

<sup>82</sup> Rotter ML, Larsen SO, Cooke EM, Dankert J, Daschner F, Greco D, et al. A comparison of the effects of preoperative whole-body bathing with detergent alone and with detergent containing chlorhexidine gluconate on the frequency of wound infections after clean surgery. The European Working Party on Control of Hospital Infections. *J Hosp Infect* 1988;11:310-20.

<sup>83</sup> Leigh DA, Stronge JL, Marriner J, Sedgwick J. Total body bathing with 'Hibiscrub' (chlorhexidine) in surgical patients: a controlled trial. *J Hosp Infect* 1983;4:229-35.

<sup>84</sup> Ayliffe GA, Noy MF, Babb JR, Davies JG, Jackson J. A comparison of pre-operative bathing with chlorhexidine-detergent and non-medicated soap in the prevention of wound infection. *J Hosp Infect* 1983;4:237-44.

<sup>85</sup> Mangram AJ, Horan TC, Pearson ML, Silver LC, Jarvis WR, for the Hospital Infection Control Practices Advisory Committee (HICPAC). Guideline for prevention of surgical site infection, 1999. *Infect Control Hosp Epidemiol* 1999;20(4):247-278.

<sup>86</sup> Bleasdale SC, Trick WE, Gonzalez IM, Lyles RD, Hayden MK, Weinstein RA. Effectiveness of chlorhexidine bathing to reduce catheter-associated bloodstream infections in medical intensive care unit patients. *Arch Intern Med* 2007;167(19):2073-9.

<sup>87</sup> Climo MW, Sepkowitz KA, Zuccotti G, Fraser VJ, Warren DK, Perl TM, Speck K, Jernigan JA, Robles JR, Wong ES. The effect of daily bathing with chlorhexidine on the acquisition of methicillin-resistant *Staphylococcus aureus*, vancomycin-resistant enterococcus, and healthcare-associated bloodstream infections: results of a quasi-experimental multicenter trial. *Crit Care Med*. 2009;37(6):2097-8.

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- xv. 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
    - 1. Metric: Automated physician processes
      - a. Documentation that processes function
      - b. Data Source: HAI system
  - xvi. Measure: Develop baseline measures of central line dwell time for risk stratified patient populations with central lines
    - 1. Metric: Mean and median dwell time in ICU and/or non-ICU patients
  - xvii. Measure: Implement response to long central line dwell times
  - xviii. Measure: Design automated reporting tool using EMR fields
  - xix. Milestone: Implement targeted automated nursing and physician reminders on prevention for long dwell times and identified HAI cases
    - 1. Metric: Measure the percent of devices detected with long dwell time or identified CLABSI whose clinical providers received notification
      - a. Numerator: Number of patients with long dwell time or a device-associated HAI whose provider received automated prevention reminders
      - b. Denominator: Number of patients with long dwell time or a device-associated HAI
- o **Improvement Measures:**
- i. Measure: Implement daily chlorhexidine bathing (CHG) of patients with central vascular catheters (CVCs)
    - a. Metric: Percent of patients with CVCs detected on point prevalence check on a sample
      - i. Numerator: Number of patients with CVCs receiving CHG bathing
      - ii. Denominator: Number of patients with CVCs on sampled units excluding those actively declining to have chlorhexidine bathing
  - ii. Milestone: Improve effectiveness of daily nursing prompts to identify presence of medical devices
    - a. 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
      - i. Numerator: Number of devices detected by automated prompt
      - ii. Denominator: Number of devices in patients on sampled units
  - iii. Milestone: Implement daily chlorhexidine bathing of patients with central venous catheters (CVCs) as evidenced by presence of standardized order set
    - a. 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.

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<sup>89</sup> Popovich KJ, Hota B, Hayes B, Weinstein RA, Hayden MK. Effectiveness of routine patient cleansing with chlorhexidine gluconate for infection prevention in the medical intensive care unit. *Infect Control Hosp Epidemiol* 2009;30(10):959-63.

<sup>90</sup> Ridenour G, Lampen R, Fiderspiel J, Kritchevsky S, Wong E, Climo M. Use of intranasal mupirocin and chlorhexidine bathing and the incidence of methicillin-resistant *Staphylococcus aureus* colonization and infection among intensive care units patients. *Infect Control Hosp Epidemiol* 2007;28:1155-1161.

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects

- i. Numerator: Number of patients with CVCs receiving chlorhexidine bathing
        - ii. Denominator: Number of patients with CVCs on sampled units excluding those actively declining to have chlorhexidine bathing
  - iv. Measure: Measure impact of automated real-time system on HAI rates
    - a. Metric: HAI rates
      - i. Per CDC NHSN or another available metric
      - ii. Data Source: HAI system
      - iii. 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.
  - v. Measure: Increase number of clinicians confirming receipt of real-time feedback of HAI events
    - a. Metric: Clinicians confirming real-time feedback
      - i. Numerator: Number of clinicians confirming receipt of real-time feedback of HAI events
      - ii. Denominator: Total number of clinicians confirming receipt of real-time feedback of HAI events
      - iii. Data Source: TBD by DPH system
  - vi. Measure: Assessment of HAI rates based upon reconciled vs. non-reconciled metrics
  - vii. Measure: Implement targeted automated nursing and physician reminders on prevention for long dwell times and identified HAI cases
    - a. Metric: Percent of devices detected with long dwell time or identified CLABSI whose clinical providers received notification
      - i. Numerator: Number of patients with long dwell time or a device-associated HAI whose provider received automated prevention reminders
  - viii. 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
    - a. Metric: Development of a system that can be shared nationally
      - i. Documentation of learnings and recommendations
      - ii. 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 records.

## **Appendix A: Evidence-Based Models**

**Implemented by**

**California Public Hospital Systems to**

**Enhance Quality, Promote Coordinated Care, Build Medical Homes and Ensure Access**

**November, 2010**

**California Health Care Safety Net Institute**

### **Introduction**

This paper summarizes several of the foundational models of care improvement and transformation that underlie the proposed California public hospital system initiatives in the DSRIP, including:

- Patient Visit Redesign
- Patient Centered Medical Home Model
- Chronic Care Model
- Patient Centered Scheduling Model
- Behavioral-Physical Health Integration
- E-Referral Model for Improving Outpatient Specialty Care Access
- Improving Language Access: HCIN/VMI
- Improving Collection and Use of Accurate, Consistent Race/Ethnicity/Language (REAL) Data to Ensure Health Equity
- Palliative Care
- Process Improvement in Health Care
- Rapid Medical Evaluation (RME)
- Reducing Readmissions
- Patient-Centered Care/Improving the Patient Experience



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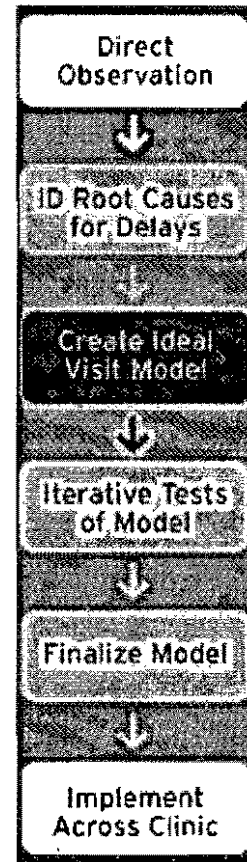
**Patient Visit Redesign**

Every day, public clinics open their doors to already waiting lines of patients who arrive well before their scheduled appointments to avoid even longer wait times, and others walk-in with the hopes of being seen that same day. Ambulatory care clinics often serve as the first point of entry for patients into the public hospital system, and the time spent in a clinic visit becomes the first major indicator for patient satisfaction. Long wait times frustrate patients, providers and staff, and reduce access and quality. Yet, public hospital clinics are already overburdened and often abide by operational processes that don't sync with patient flow or enable greater access.

In addition to the volume of patients being seen at public clinics, operational issues also contributed to the visit wait times. Root causes for clinic inefficiencies included the practice of on-site registration, lack of communication between front office staff and providers, narrow role definitions, as well as multiple hand-offs that transport patients to various locations within the clinic site. To address these issues, public hospitals sought to streamline the way they provide care for their patients, while continuing to maintain quality and patient satisfaction.

Since 1998, the Patient Visit Redesign (PVR) model<sup>91</sup> has been the standard in work process design, drastically improving patient visit times in health care organizations throughout the United States. 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.<sup>92</sup>



**Patient-Centered Medical Home Model**

Currently, the U.S. healthcare system is disjointed and focused on acute, episodic care that is structured around provider availability. Typically, patients have to navigate a vast system of primary and specialty

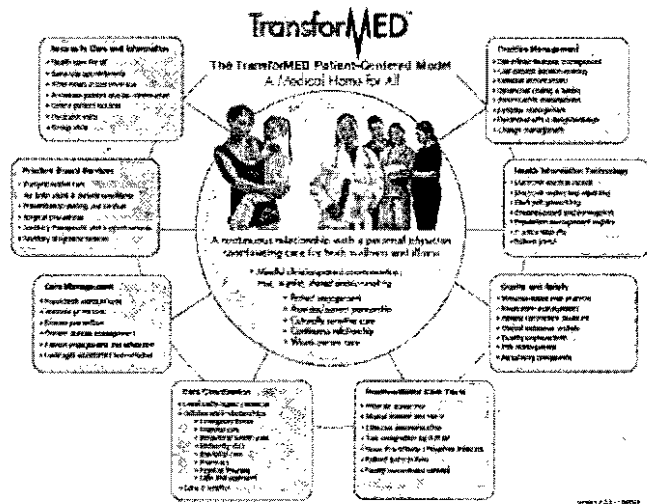
<sup>91</sup> See [http://patientvisitredesign.com/techniques/the\\_principles\\_of\\_redesign.html](http://patientvisitredesign.com/techniques/the_principles_of_redesign.html), [http://patientvisitredesign.com/techniques/the\\_principles\\_of\\_redesign\\_part\\_2.html](http://patientvisitredesign.com/techniques/the_principles_of_redesign_part_2.html), and [http://patientvisitredesign.com/techniques/advanced\\_model.html](http://patientvisitredesign.com/techniques/advanced_model.html) for the full principles of Coleman Associates' Patient Visit Redesign.

<sup>92</sup> See report by Ruth Brousseau, PhD, for full summary of the program, impact and accomplishments, and sustainability at <http://www.chcf.org/~media/Files/PDF/T/PDF%20TowardsABetterPatientExperience.pdf>.

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care providers, lab services, emergency rooms and inpatient departments with little infrastructure to support coordination between different services. Lack of coordination can result in patient and staff frustration, longer wait-times, medical errors, and poor clinical outcomes.

Originally referring to a centralized approach to coordinate medical and other related needs for children with special health care needs, the patient-centered medical home (PCMH) model, or simply “medical home”, has since vastly expanded its definition and has been seen as the leading model for primary care delivery in which patients receive well-coordinated services, evidence-based care, and enhanced access to a clinical team. According to Commonwealth Fund, a true medical home is one where “clinicians use decision support tools, measure their performance, and conduct quality improvement activities to meet patients’ needs,” which will ultimately improve clinical quality and patients’ healthcare experiences, and also reduce health system costs.



CAPH and SNI agree with the definition of the components of a patient-centered medical home as articulated by NCQA in its PCMH 2011.<sup>93</sup> As such, the medical home should provide the following:

- Conducts a health assessment of the patient’s current and anticipated health care needs in order to tailor health care to the needs of the patient;
- Maintains the patient’s health records;
- Develops a proactive health care plan for the patient, in consultation with the patient and where appropriate, the patient’s family;
- Uses evidence-based medicine;
- Facilitates enhanced access to health care;
- Provides for timely preventive; primary, and chronic care;
- Provides referrals to specialty and other health care services, and, where appropriate and if needed, community services;
- Facilitates patient self-management support and goal-setting;
- Engages in open and effective communication with patients and families, including providing timely access to qualified health care interpretation if needed and as appropriate;
- Provides health care in a culturally competent manner; and
- Uses measures and technology to support quality and process improvements.

To help California’s public hospital systems achieve all the components of a medical home, the California Health Care Safety Net Institute launched a two-year *Seamless Care Center Initiative* to advance the clinical practice and operational efficiency in 26 primary care clinics of five California public hospital systems.

The main goals of the *Seamless Care Center Initiative* are to:

- Implement reliable, safe and efficient care, based on clinical evidence and best practices for prevention and disease care;

<sup>93</sup> See [http://www.ncqa.org/Portals/0/PublicComment/PCMH2011\\_draft\\_standards\\_527.pdf](http://www.ncqa.org/Portals/0/PublicComment/PCMH2011_draft_standards_527.pdf).

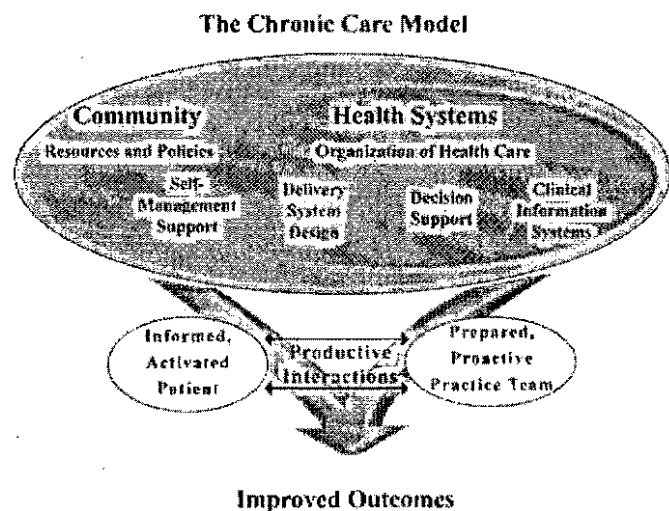
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- Spread clinical quality, effective chronic care disease management, operational efficiency, and access improvements;
- Identify and train performance improvement leaders internally at each participating hospital system to manage ongoing large-scale improvement work in primary care.

**The (Chronic) Care Model**

The MacColl Institute for Healthcare Innovation estimates that more than 145 million people, or almost half of all Americans, live with a chronic condition and that almost half of all people with chronic illness have multiple conditions. Furthermore, the rate of chronically ill is expected to increase by more than 1% per year. This suggests that the current management of diseases such as diabetes, heart disease, depression, and asthma, among others, is executed poorly and not in tune with the needs of chronically ill patients.

Root causes are the same throughout the nation: providers often do not follow best practices, there is a lack of care coordination and proper follow-up, and patients are ill-equipped to manage their illness. Improving Chronic Illness Care created the Chronic Care Model (CCM)<sup>94</sup>, the well-documented and tested leading model for treating chronic diseases, which summarizes the basic elements for improving care in health systems. These elements are the community, the health system, self-management support, delivery system design, decision support and clinical information systems. By using evidence-based change concepts within each element in combination with one another, patients are better-informed and then take an active part in their care, while patient care teams have the resources and expertise they need to better manage the chronic illnesses of their patients. The results are more productive interactions between patients and their care teams, and better clinical outcomes for patients with chronic diseases.



Developed by the MacColl Institute of ACP/ASPC, Journal and News

In 2005 with 9 public hospital systems, and again in 2007-2008 with 39 primary care improvement teams from 11 public hospital systems, the California Health Care Safety Net Institute worked to improve chronic illness care for people with diabetes. The programs involved regional learning collaboratives, leadership development for the spread of chronic care improvements, and cash grants and consultancy services for adoption and spread of electronic disease registries. The work led to impressive results for both improved processes of care and, most importantly, improvements in the health status of patients tracked in the program.

Activities focused program work on three components of the *Chronic Care Model*, those linked most closely to improvement in blood sugar levels in people with diabetes:

1) Delivery System Design

<sup>94</sup> See [http://www.improvingchroniccare.org/index.php?p=The\\_Chronic\\_Care\\_Model&s=2](http://www.improvingchroniccare.org/index.php?p=The_Chronic_Care_Model&s=2) for detailed information about the Care Model.

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Improving the health of people with chronic illness requires transforming a system that is essentially reactive - responding mainly when a person is sick - to one that is proactive and focused on keeping a person as healthy as possible.<sup>95</sup> That requires not only determining what care is needed, but spelling out roles and tasks for ensuring the patient gets care using structured, planned interactions. And it requires making follow-up a part of standard procedure, so patients aren't left on their own once they leave the doctor's office. More complex patients may need more intensive management (care or case management) for a period of time to optimize clinic care and self-management, with providers needing to respond effectively to the diverse cultural and linguistic needs of patients.

To improve their own delivery systems, public hospitals in California are employing the following:

Daily team huddles before clinic session helps team plan the care for each patient for the day

Ability to offer the patient multiple services on day of visit (e.g. PCP, nutritionist, diabetes educator)

Use of reminder postcards when labs or immunizations are due

## 2) Clinical Information Systems

Effective management of patients with chronic diseases requires organization of patient and population data to facilitate efficient care with the best clinical outcomes. A good clinical information system:

- Provides timely reminders for providers and patients
- Identifies relevant subpopulations for proactive care
- Facilitates individual patient care planning, and
- Shares information with patients and providers to coordinate care (2003 update)
- Monitors performance of practice team and care system

Public hospital systems in California have implemented chronic disease registries to keep track of and help manage patients' clinical information, such as cholesterol and blood sugar levels, and are now establishing care teams with designated patient panels to better manage populations of patients with chronic diseases.

## 3) Self-Management Support

All patients with chronic illness make decisions and engage in behaviors that affect their health (self-management). Disease control and outcomes depend to a significant degree on the effectiveness of self-management.

Effective self-management support means more than telling patients what to do. It means acknowledging the patients' central role in their care, one that fosters a sense of responsibility for their own health. It includes the use of proven programs that provide basic information, emotional support, and strategies for living with chronic illness. Self-management support can't begin and

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<sup>95</sup> Excerpted from the Improving Chronic Care Web site at  
<http://www.improvingchroniccare.org/index.php?p=Model.Elements&s=18>.

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end with a class. Using a collaborative approach, providers and patients work together to define problems, set priorities, establish goals, create treatment plans and solve problems along the way.

Public hospitals are using the following models of self-management tools to help support their patients in managing their diseases:

- **Group visits** are initiated by health care teams who facilitate an interactive process of care delivery in a periodic group visit program.<sup>96</sup> The team empowers the patient, who is supported by information and encouraged to make informed health care decisions. The group visit can be conceptualized as an extended doctor's office visit where not only physical and medical needs are met, but educational, social and psychological concerns can be dealt with effectively.
- **Health Coaches** are used by public hospital clinics to help patients navigate the health care system. Health coaches assist patients with paperwork and work with them after medical visits to make sure they fully understand the medications and advice recommended by the physician. Health coaches also discuss with patients how to best incorporate treatment—such as checking blood pressure and injecting insulin—into the patients' day-to-day life in a way that is attainable and comfortable within the patient's lifestyle.
- **Promotoras**, or health promoters, work with Spanish-speaking patient populations to provide nutrition education, self-management support, and regularly follow up with patients to ensure that they are managing their medications and exercise plans. Promotoras have become an essential part of the care team at many public hospitals, and help patients manage their diabetes in a more culturally sensitive and appropriate way.
- **Motivational interviewing** is "a directive, client-centered counseling style for eliciting behavior change by helping clients to explore and resolve ambivalence. Compared with nondirective counseling, it is more focused and goal-directed. The examination and resolution of ambivalence is its central purpose, and the counselor is intentionally directive in pursuing this goal."<sup>97</sup>

### Patient-Centered Scheduling Model

National statistics indicate that seventy-five percent of patients want appointments on the same day they call. However, traditional patient scheduling systems have multiple problems inherent in their existing structures that make same-day appointments virtually impossible. Rather than being engineered to satisfy patients, traditional scheduling systems are designed by staff and managers to manage the flow of the day. Oftentimes many appointments have different "types" (like "Physical" or "PAP Smear"), with each type having a unique time allotment (i.e., 20, 30, or 45 minutes). Moreover, staff schedules are often out of alignment with patient demand, which creates unnecessarily hectic days. Magnify these problems by double-booking patients and the result is the current situation: lengthy waits and limited access to appointments, dissatisfied patients, and highly stressed staff.

As a result of poor access to appointments, many safety net clinics experience high no-show rates because patients are often not given immediate access to care when they experience episodic acute problems, impacted provider productivity because of patient no-shows, and high patient walk-in rates because patients know this is an effective way for them to be seen quickly in this flawed system. With traditional

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<sup>96</sup> From the *Improving Chronic Illness Care Group Visit Starter Kit* at [www.improvingchroniccare.org](http://www.improvingchroniccare.org).

<sup>97</sup> See <http://www.motivationalinterview.org/clinical/whatismi.html>

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patient scheduling systems that simply create workarounds without solving the root causes of limited access, an overhaul of the scheduling structure is necessary in order to better serve patients and help staff.

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.<sup>98</sup> 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.

Public hospital systems 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.

**Integrated Physical-Behavioral Health Care**

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.

In a recent analysis of the underlying causes and theories for improving physical-behavioral health integration conducted for CAPH, David Ofman, MD, summarized key studies on this issue and the best practices for integration.<sup>99</sup> According to Dr. Ofman, the key issues that make the case for behavioral-physical health integration are:

1) 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).

2) 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).

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<sup>98</sup> See [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>99</sup> See Ofman Report to the California Association of Public Hospitals and Health Systems (CAPH) / Safety Net Institute (SNI) Concerning Behavioral Health – Physical Health Integration Efforts by Member Health Systems.

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3) 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 (Olson, Sing, and Schlesinger, 1999).

4) 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.

5) 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.)

6) 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.

7) 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).

While integration is shown to be necessary to achieve the best patient outcomes and control costs, several known barriers still exist. Funding silos, resistant staff, inaccurate perceptions of different departments, as well as access to care and physical capacity are all complex challenges that need to be addressed in order to make true behavioral-physical health integration.

To better integrate physical and behavioral health services, public hospital systems are implementing and adapting different models. Two key models are the IMPACT model, used at San Francisco Department of Public Health clinics, and the Four Quadrant Model, to be implemented soon at San Mateo Medical Center.

### **The IMPACT Model<sup>100</sup>**

The IMPACT model is a five-component, evidence-based model designed specifically to tackle the unmet needs of elderly depressed patients. IMPACT stands for "Improving Mood Promoting Access to Collaborative Care Treatment". As reported in the December 11, 2002 issue of the Journal of the American Medical Association (JAMA), the IMPACT model more than doubles the effectiveness of depression treatment for older adults in primary care settings.

Five of the most essential elements of the IMPACT Model are:

#### **1. Collaborative care is the cornerstone of the IMPACT model and functions in two main ways:**

- The patient's primary care physician works with a care manager to develop and implement a treatment plan (medications and/or brief, evidence-based psychotherapy)

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<sup>100</sup> Excerpted from the IMPACT website at the University of Washington at <http://impact-uw.org/about/key.html>.

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- Care manager and primary care provider consult with psychiatrist to change treatment plans if patients do not improve

**2. Depression Care Manager:**

This may be a nurse, social worker or psychologist and may be supported by a medical assistant or other paraprofessional. The care manager:

- Educates the patient about depression
- Supports antidepressant therapy prescribed by the patient's primary care provider if appropriate
- Coaches patients in behavioral activation and pleasant events scheduling
- Offer a brief (six-eight session) course of counseling, such as Problem-Solving Treatment in Primary Care
- Monitors depression symptoms for treatment response
- Completes a relapse prevention plan with each patient who has improved

**3. Designated Psychiatrist:**

- Consults to the care manager and primary care physician on the care of patients who do not respond to treatments as expected

**4. Outcome measurement:**

- IMPACT care managers measure depressive symptoms at the start of a patient's treatment and regularly thereafter. The PHQ-9 is recommended as an effective measurement tool; however, there are other effective tools.

**5. Stepped care:**

- Treatment adjusted based on clinical outcomes and according to an evidence-based algorithm
- Aim for a 50 percent reduction in symptoms within 10-12 weeks
- If patient is not significantly improved at 10-12 weeks after the start of a treatment plan, change the plan. The change can be an increase in medication dosage, a change to a different medication, addition of psychotherapy, a combination of medication and psychotherapy, or other treatments suggested by the team psychiatrist.



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**Four Quadrant Model.**<sup>101</sup>

Here 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 fully integrated mental health and substance abuse program.

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.<sup>102</sup> 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. What's worse, research shows that depression leads to poorer physical and mental functioning, so a person is less likely to follow a required diet or medication plan, which is essential to effectively treating diabetes. Consequences of untreated depression include:

- Distress, disability, suicide
- May increase and/or exacerbate:
  - risky behaviors, i.e. unprotected sex, drug and alcohol abuse
  - behaviors that contribute to poor health, i.e. smoking, poor nutrition
  - symptoms of chronic medical illness, i.e. cardiovascular disease, diabetes, and/or
  - use of general medical services

Failure to detect and treat depression leads to unnecessary suffering and disability, and increases the use of health care services. The US Preventative Service 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.

According to the Macarthur Initiative on Depression and Primary Care, the PHQ-9 is the nine-item depression scale of the Patient Health Questionnaire (PHQ), which is a depression screening tool used by primary care clinicians to diagnose mental health disorders. After the patient has completed the PHQ-9 questionnaire, it is scored by the primary care clinician or office staff, who then select and monitor treatment. This tool is found to be an efficient way to screen individuals and large groups of patients to improve detection of undiagnosed depression. Used effectively, the PHQ-9:

- Is shorter than other depression rating scales,
- Can be administered in person, by telephone, or self-administered,
- Facilitates diagnosis of major depression,
- Provides assessment of symptom severity,
- Has proven effective in a geriatric population<sup>103</sup>, and
- Is well validated and documented in a variety of populations

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<sup>101</sup> <http://www.thenationalcouncil.org/galleries/resources-services%20files/5.%20Four%20Quadrant%20Diagram.pdf>

<sup>102</sup> See UCSF *Depression in Primary Care* presentation by Mitchel Felman, MD  
<http://www.ucsfmcg.com/2008/MPS08002/FeldmanDepressionInPrimaryCare.pdf>

<sup>103</sup> See Löewe B, et al, 2004 Medical Care

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**E-Referrals** (for improving care coordination, improving efficiency and reducing wait times for specialists)

According to a recent University of California at San Francisco (UCSF) report<sup>104</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. This highly complex network of providers coupled with the poor communication infrastructure creates a barrier to continuum of patient care, increases health risks and does not allow for networks of health care providers (hospitals, specialists, doctors, agencies) to share information and manage the overall system. For example, in a recent six-country survey of patients with chronic illnesses, U.S. patients were most likely to report that when they received care from multiple physicians, test results or medical records were not available at the time of their appointments.

To reduce wait times for specialty appointments, e-Referral systems have been introduced in many health care systems. There are many benefits for the patient: there is equality of care for all referred patients, a smooth transition of responsibility and continuity of patient care, and patients appreciate the improved efficiency and smoother communication. Overall, e-Referral can create increased confidence in the efficiency of the health system. According to a California HealthCare Foundation report<sup>105</sup>, e-referring works like this:

*The originating provider initiates the referral by completing a Web-based request form at the point of care. Patient data is registered, and depending on the complexity of the system, the data is filtered according to insurance coverage, preferred language, even access to public transportation. The referral is sent securely to the participating provider who can then review the referral before scheduling an appointment to ensure that the service is appropriate and all the relevant information is available.*

In California, a good example of e-referral success is the launch of UCSF's and San Francisco General Hospital's (a public hospital) e-Referral system, a Web-based electronic referral system integrated into the hospital's electronic health record. Twenty-eight specialty clinics and diagnostic services at San Francisco General Hospital currently use the e-Referral system. For clinics that had been plagued by long wait times, implementation of e-Referral resulted in dramatic improvements. For example, in rheumatology, the median wait time for a non-urgent appointment initially dropped from 126 days to 29 days. Several factors contributed to the change, including the fact that some requests were managed without the need for appointments and some were redirected to other clinics. Patients seen by specialists were also less likely to require follow-up appointments than under the old referral system, because they had received a more extensive pre-visit workup. Surveys of specialists conducted before and after the rollout of e-Referral suggested that the new system helped clarify the reasons for referrals.

**Improving Language Access: HCIN/VMI**

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<sup>104</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>

<sup>105</sup> See *Bridging the Care Gap: Using Web Technology for Patient Referrals* at <http://www.ehcf.org/publications/2008/09/bridging-the-care-gap-using-web-technology-for-patient-referrals#ixzz11in2614x>

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As the United States becomes increasingly diverse, American hospital systems face an enormous challenge in providing quality health services to limited English speaking patients. Increasing attention to quality improvement and medical error reduction initiatives cannot overlook the critical element of effective communication between physicians and patients in ensuring successful health outcomes. The dilemma of ensuring effective communication between medical providers and the Limited English Proficient (LEP) population and the deaf and hearing impaired is pervasive, facing not only large, urban public hospital systems in states such as California and New York, but also suburban and rural systems.

According to the 2000 Census, 39.5% of Californians over the age of five speak a language other than English at home and 20% of this population speaks English less than very well. And California's public hospitals and health systems serve a patient population made up of more than 76% people of color and more than half of public hospitals' patients are LEP. As a result, public hospitals encounter a significant challenge in the volume and complexity of their provision of language services. Without adequate language communications systems in place, providers and patients suffer not only frustration, but also adverse clinical outcomes.

California public hospital systems' mission to serve California's most diverse populations, and a high level of administrative and physician leadership and innovation, has uniquely positioned these safety net institutions to lead the nation in innovative, cost-effective, high-quality language services. California public hospital systems use a unique combination of qualified medical interpreters, bilingual clinicians, trained bilingual staff, remote technology and an automated video/voice call center system called Health Care Interpreter Network (HCIN)<sup>106</sup>, which is a cooperative of California hospitals and health care providers sharing trained healthcare interpreters through videoconferencing devices and all forms of telephones. HCIN is available throughout each network hospital and connects within seconds to an interpreter on the HCIN system, either at their own hospital or one of their colleague hospitals. By pooling hospital-based staff, routing calls from video devices and telephones, and linking to external interpreting resources, HCIN enables clinicians and front-end staff at every point of patient contact to reach an interpreter on demand, 24 x 7, in 170 languages, at a very manageable cost.

Another area of success has been the publication of *Straight Talk: Model Hospital Policies and Procedures on Language Access*<sup>107</sup> by the California Health Care Safety Net Institute (SNI). The need for clear policy and detailed operational procedures, both to ensure quality health care services and to meet legal and regulatory requirements, is the dilemma of virtually every health care provider in America. The creation of these hospital policies and procedures for language access has been an essential mechanism to setting the standard in the operational actions of the U.S. hospital industry with regards to providing culturally competent care and has helped California's public hospitals become national leaders in providing high quality, cost-effective language services.

**Improving Collection and Use of Accurate, Consistent Race/Ethnicity/Language (REAL) Data to Ensure Health Equity**

In 2002, the Institute of Medicine report *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*, signified a new era of national attention to racial and ethnic disparities in the American health care system. Corroborating that report, many research studies have established that Americans do not all have equal access to health care, or experience similar health care quality and outcomes. Low-income, racial and ethnic minority, limited-English proficient, and other underserved populations often have higher rates of disease, fewer treatment options, reduced access to care, and lower satisfaction with care.

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<sup>106</sup> [www.hcin.org](http://www.hcin.org)

<sup>107</sup> See full document here: <http://www.safetynetinstitute.org/content/upload/AssetMgmt/Site/StraightTalkFinal.pdf>.

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Because public hospitals serve diverse and underprivileged populations by mission and mandate, their vision has always been to provide equitable health care. For decades, public hospitals have remained committed to reducing health care disparities; however, like all of American medicine, they struggle with the resources and other challenges to achieving equitable care for all patients.

A key prerequisite for measuring equity of care and addressing disparities is to collect valid and reliable patient demographic data on race, ethnicity, and preferred language (REAL data). These data elements must be effectively linked to data systems used in health care service delivery (to tailor care to patient needs), as well as data systems used in quality improvement (to identify disparities).

Creating organizational systems for capturing REAL data is a long and resource-intensive process. Currently, the processes for analyzing equity of care are mostly piecemeal and limited in scope, taxing organizational resources. The California Health Care Safety Net Institute (SNI) recently completed a comprehensive assessment of system-level barriers and facilitators of improved REAL data collection and use in public hospital systems. SNI found that California safety net health care systems had an overall strong desire to identify and reduce disparities through the collection and use of REAL data, and in many cases have made great strides in infrastructure development and workforce training toward that goal. However, the study also uncovered significant barriers to effective collection and utilization of these patient demographic data for public hospitals. The key barriers identified include:

- Inadequate electronic healthcare data management systems and/or burdensome processes for integrating /revising the REAL data fields within the existing data management systems.
- Shortage of internal expertise for identifying the optimal categories that fit both the legislative/regulatory requirements and the local community demographic profile,
- Lack of understanding among registration staff, health care professionals and patients alike about the crucial role REAL demographic data collection plays in underscoring the quality of care and reducing disparities.
- Inadequate training of registration staff and other key staff functions on how to effectively communicate with patients about the effort to collect REAL data.
- Lack of knowledge about using the collected REAL data toward quality improvement and disparity reduction. This includes assessing whether disparities exist and understanding them, as well as designing effective improvement interventions.

To address these barriers, key next steps for public hospitals systems include developing tools, HIT protocols and training curricula to improve the collection and utilization of REAL data elements, which is the foundation for achieving significantly greater efficiency and cost-effectiveness in measuring equity of care, thus enabling the designs of more successful efforts to eliminate health care disparities.

### **Palliative Care**

The main objective of health care in the U.S. is to keep patients healthy, and more importantly keep patients alive. Yet the same treatments that prolong life and restore health in one case may prolong dying and promote suffering in another. With the aging of the American population, and the steady growth in the number of people living with chronic illness, palliative care approaches have emerged in recent years to ease the prolonged pain and suffering associated with being severely ill and, ultimately, improves the inevitable experience of dying for patients and their families. It is estimated that 70% of people who experience chronic pain do so without adequate treatment. Symptoms such as anxiety, depression, shortness of breath, and fatigue are sometimes overlooked or ignored by health care professionals. In

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addition, caregivers of people with chronic or life-threatening illnesses often feel alone in their struggle to provide good care. Palliative care strives to deal with the many issues surrounding people who deal with life-threatening illnesses, and help them make critical decisions about end-of-life care.

Palliative Care developed during the 1960's as an attempt to adequately address some of the unmet needs of severely ill patients and their families. The central focus of the palliative care model is comprehensive, interdisciplinary care that provides medical, emotional, spiritual and practical support, palliative care helps patients feel better and remain more active and independent while providing control and dignity at a time when patients most need it. It is provided simultaneously with all other appropriate medical treatments, and is coordinated among all caregivers and specialists. A key feature of palliative care is its focus on the patient as well as the family. Terminal illness puts special stress on families, and having the right support can be very helpful. Talking about and planning for the future can help prepare a person and the person's family to make the best choices for everyone involved. Studies show that palliative care improves quality of life for seriously ill patients and consistently reduce symptom distress and improve patient and family satisfaction. Palliative care programs can also alleviate inpatient overcrowding, bed shortages and inappropriate use of intensive care unit beds.

Palliative care, when done right, improves the communication of all parties involved in the patient's care. This improved communication helps patients and their care teams determine the best course of care and the most appropriate settings of care, which in practice often results in providing less aggressive hospital treatment, and a smoother, timelier, and more coordinated transition to non-hospital settings of care.

A collaboration of the California Health Care Safety Net Institute (SNI), the University of California at San Francisco's Palliative Care Leadership Center (PCLC), and the California HealthCare Foundation, has established palliative care programs in two-thirds of California public hospitals, from only 21% before the initiative.

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**Process Improvement in Health Care**

American health care has evolved over time, incorporating many innovations and technologies that have proven to be the most effective for providing high-quality care. Unfortunately, many processes and practices have not evolved as quickly, creating inefficient workflows that unnecessarily lengthen hospital visits. Patient waiting times, staff scheduling, space allocation, and inventory have historically been secondary considerations. Coupled with the fact that hospitals are serving more patients, providing more services, and addressing more quality issues, it's clear that heavy considerations need to be made to maximize efficiency and reduce costs, while still achieving the best clinical outcomes.

One way to achieve these goals is through the application of process improvement methods, such as Lean or management engineering, which are systematic processes for diagnosing and correcting problems in the delivery of care. They can improve care by increasing productivity, controlling costs, and reducing wait times for patients by streamlining work and patient flow, reducing waste, improvement staffing efficiency, improve patient-staff communications, and defining clinical requirements for continuous quality care.<sup>108</sup>

Developed by Toyota in the 1950s to strengthen automobile manufacturing infrastructure and maximize resources, Lean is an 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. According to the California HealthCare Foundation report *Operations Improvement Methods: Choosing a Path for Hospitals and Clinics*<sup>109</sup> 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."

The entire focus of a successful Lean project is on the needs of the patient. This is done by applying the Japanese concept of "Kaizen", or quick iterative experiments in change, along with Lean techniques to "create new work practices that improve care processes, eliminate waste, reduce ambiguity in work assignments, and solve problems." These techniques can be summarized into three categories: using "Takt" time, developing a value stream map, and using "5-S". Takt time defines the pace or rhythm necessary for smooth work flow and is calculated by the time required to complete a task by the quantity needed for the task. A value stream map is a diagram that identifies how work flows and shines a light on wasteful activities. And lastly, "5-S" (sort, set in order, shine, standardize, and sustain) operates under the notion that a well-organized workplace will be efficient. Used all together, waste is virtually eliminated from the continuum of care, while still keeping the quality intact.

To date, five public hospitals in California have incorporated Lean techniques into their systems to eliminate waste and to create a more patient-focused environment that supports timely delivery of treatment with optimum quality at the least cost. For example, Lean has been vital in reliably improving delivery discharge processes for congestive heart failure patients and reducing their preventable re-hospitalizations. These improvements have made a direct impact on CMS core measures scores, with plans to spread Lean methodology throughout their hospital systems.

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<sup>108</sup> See: *Operations Improvement Methods: Choosing a Path for Hospitals and Clinics* by David Belson, PhD: <http://www.chcf.org/publications/2007/12/improving-efficiency-management-engineering-comes-to-the-safety-net#ixzz1umwfMFJ>

<sup>109</sup> [www.chcf.org/publications](http://www.chcf.org/publications)

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**Rapid Medical Evaluation (RME)**

As the demand for emergency services grows, resources in emergency medicine are being stretched. This causes longer emergency department (ED) wait times, overcrowding, ambulance diversion, increased patient suffering and poor morale. Oftentimes patients ultimately leave the ED without being seen, which results in prolonged illness, prolonged pain, and an increased rate of subsequent hospitalization. California Emergency Physicians Medical Group (CEP) confronted rising patient volumes and limited space by reengineering the patient treatment process, developing the Rapid Medical Evaluation (RME) program. Created in 2002, RME is a proven methodology for reducing wait times by improving patient flow, improving care, and increasing patient satisfaction in the ED, the main tenant being bringing patients to providers as quickly as possible upon arrival to the ED.

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. The benefits reported are quicker door-to-provider times, fewer patients leaving without being seen and increased revenue because of improved efficiencies.

**Reducing Readmissions**

Hospitalizations are costly, accounting for approximately 31 percent of total health care expenditures.<sup>110</sup> According to the Academy Health report *Reducing Hospital Readmissions* by Jenny Minott, multiple factors contribute to avoidable hospital readmissions, including poor quality care or poor transitions between different providers and care settings. Readmissions may also occur if patients are discharged from hospitals or other health care settings prematurely, are discharged to inappropriate settings, or do not receive adequate information or resources to receive progressive treatment. System factors also contribute to unplanned hospital readmissions, such as lack of coordinated care or poor communication and information exchange between inpatient and ambulatory providers. Additional data also indicates that the majority of readmissions are for medical services, rather than surgical procedures. Repeated hospital admissions also affect patient morale and leave them feeling lost and confused about the health care system and how to best manage their health.

Identifying and implementing best practices to reduce avoidable readmissions would likely improve quality, reduce unnecessary health care utilization and costs, promote patient-centered care, and increase value in the health care system. Moreover, as some individuals are at greater risk of readmission as a result of individual and/or cultural characteristics, care coordination targeted to particular groups of patients could reduce hospital readmission and may help eliminate disparities in health care.

A proven method for reducing avoidable readmissions is to improve transitional care, which ensures proper coordination and continuity of care as patients move between various locations or levels of care within one organization. A leading model for this work is **The Care Transitions Intervention™**, which has been adopted by over 170 leading health care organizations nationwide. Through this approach, Eric Coleman, MD, a nationally-recognized readmissions expert, says that there are four pillars that provide a

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<sup>110</sup> See Academy Health *Reducing Hospital Readmissions* report:  
[http://www.academyhealth.org/files/publications/Reducing\\_Hospital\\_Readmissions.pdf](http://www.academyhealth.org/files/publications/Reducing_Hospital_Readmissions.pdf).

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core set of medical directions that the patient should have: medication self management, follow-up appointment with the primary care physician or specialist, a knowledge of "red flag" or warning signs of symptoms and how to respond to them, and a personal health record that is a portable core set of medical directions including a medication list and associated allergies, an advance directive, treatment preference, and room for patient questions and concerns.

In addition to these four pillars, studies show that care transitions intervention coaching can result in a significant reduction in 30-day hospital readmits, as well as a potential reduction in 90-day and 180-day readmits<sup>111</sup>. Care transitions coaches could help patients by modeling behavior to resolve discrepancies, respond to red flags and obtain a timely follow-up appointment, and also help the patient practice for their next encounter with his/her provider and identify two or three questions to discuss. Enhancing the role of patients and caregivers, measuring the quality and safety of care transitions, and using health information technology to promote safe care transitions also play a role in preventing avoidable readmissions.

Over the past few years, California public hospitals have implemented and made important adaptations of various models to reduce avoidable admissions, from Dr. Coleman's Care Transitions Intervention to other models such as **Project RED**<sup>112</sup> or **Transforming Care at the Bedside**<sup>113</sup>. Four public hospitals have also successfully applied Lean to improve reliable delivery of discharge processes for congestive heart failure patients, showing steady progress in decreasing readmissions for CHF patients.

### **Patient-Centered Care/Improving the Patient Experience**

The main goal of health care is to bring a sick patient to health. To this end, hospital and clinic staff are medically trained to diagnose physical symptoms and heal a patient's illness, and to alleviate any accompanying discomfort or pain. In this simplified sense, the assumption could be made that health care is ultimately patient-centered. However, health care involves much more than a 10-minute visit between a patient and their doctor. A patient's experience of health care begins with a patient trying to gain access to his or her health system, what information (or lack of) is delivered to them while waiting to be seen, the quality of the medical visit, knowledge of how to access other services related to their care, and clarity around post-visit care and medication, as well as a host of other potential interactions within the system of care. This series of interactions involve many *people* who deliver this care-- physicians, nurses, front-line staff, environmental service staff, and many others---so the *way* in which care is delivered affects the overall perception of the services received. And yet while the goal may be to heal patients, current practices and standards support the view that the "providers are the experts, family are visitors, and patients are body parts to be fixed."<sup>114</sup> In this view, care then is centered more around the providers and current system structure rather than around the patient.

The way care is delivered not only matters to patients but has a direct impact on quality and patient safety. The Institute of Medicine's 2001 report *Crossing the Quality of Chasm* identified patient-centeredness as an essential foundation for quality and patient safety.<sup>115</sup> In the report *Patients' Satisfaction with Care and Quality of Care*, the research shows that hospitals that perform well on HCAHPS also have a higher

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<sup>111</sup> See *A Look at Care Transitions* article: <http://nashville.medicalnewsinc.com/reducing-unplanned-hospital-readmissions-cms-2426>.

<sup>112</sup> <http://www.ahrq.gov/news/kt/red/>

<sup>113</sup>

<http://www.ihl.org/IHI/Topics/MedicalSurgicalCare/MedicalSurgicalCareGeneral/ImprovementStories/TransformingCareattheBedsideinitiativePrototyphase.htm>

<sup>114</sup> See *Patient Centered Care Improvement Guide*, Picker Institute and Planetree, October 2008.

<sup>115</sup> See *Patient Centered Care Improvement Guide*, Picker Institute and Planetree, October 2008.



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performance on hospital quality standards.<sup>116</sup> A recent report published by Health Services Research also shows that patient experience indicators, such as response times and cleanliness, affect infection rates and other safety measures.<sup>117</sup> To add further complexity, recent findings indicate a direct link between the employee experience and the patient experience of care.

Because the patient experience spans every department within the health care system and the research on this subject is relatively new, there is limited evidence that would wholly support any one method for improving the overall patient experience. However, there is research available for targeted practices and departments that show possible improvement in HCAHPS scores. According to the Studer Group, the emergency department (ED) is a hospital's major point of entry for patients, accounting for 50% of inpatient admissions nationally.<sup>118</sup> What's more, patients admitted through the ED rated care "more negatively than those patients admitted through other avenues." Using the Studer Group's evidence-based leadership tactics modified for the ED setting, hospitals can improve and drive consistency in the patient experience.<sup>119</sup> Through this method, patients are kept informed of the plan of care and wait times, post-visit phone calls are conducted, and leadership is engaged in working effectively with their highest and lowest performing staff. In the outpatient setting, evidence points to the correlation between wait times and patient satisfaction where longer wait times were associated with lower patient satisfaction scores.<sup>120</sup> The report further found that "...time spent with the physician was the strongest predictor of patient satisfaction. The decrement in satisfaction associated with long waiting times is substantially reduced with increased time spent with the physician (5 minutes or more). Importantly, the combination of long waiting time to see the doctor and having a short doctor visit is associated with very low overall patient satisfaction." Several improvement agencies employ various methods for reducing patient waiting times without reducing time spent with the provider (such as Patient Visit Redesign<sup>121</sup>) and for keeping patients informed of wait times.

In California's public hospital systems, improving the patient experience has become a top organizational priority. While individual systems are in the beginning stages of addressing the patient experience, others have been able to implement improvement activities to improve patient satisfaction. San Mateo Medical Center has made significant strides in improving their HCAHPS scores using Press Ganey survey tools and coaching to help drive improvement. Focusing on specific processes such as morning team huddles and noise reduction, San Mateo has seen their HCAHPS scores increase by 35-45%, which they have been able to maintain on a consistent basis.

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<sup>116</sup> Jha, et al. *Patients' Satisfaction with Care and Quality of Care*. New England Journal of Medicine. October 2008.

<sup>117</sup> Isaac, et al. *The Relationship Between Patients' Perception of Care and Measures of Quality and Safety*. Health Services Research. August 2010.

<sup>118</sup> Studer, et al. *The HCAHPS Handbook*. Fire Starter Publishing, 2010.

<sup>119</sup> Baker *Excellence in the Emergency Department: How to Get Results*. Fire Starter Publishing, 2009.

<sup>120</sup> Anderson et al. *Willing to Wait?: The Influence of Patient Wait Time on Satisfaction with Primary Care*. BioMed Central Health Services. 2007.

<sup>121</sup> See [http://patientvisitredesign.com/about\\_redesign/index.html](http://patientvisitredesign.com/about_redesign/index.html).

## Appendix B: Example DSRIP Categories 1-2 Plan

The purpose of this document is to confirm agreement on the framework for Categories 1-2. In order to achieve this goal, below is one sample Categories 1-2 plan to demonstrate the following:

- The categories into which projects fall (overall framework)
- The orientation of projects in different categories toward common goals
- The indirect, correlated linkages that exist amongst projects across Categories 1-3
- Examples of the types of process measures include: milestones and metrics across the years
- That all milestones will be measurable (all milestones must specify metrics or refer to recognized metrics)
- The inter-relation of the projects, which taken together work to provide improved quality of care for patient populations

**Category 1:** Per the California Section 1115 Waiver Terms and Conditions, the purpose of Category 1: Infrastructure Development is “investments in technology, tools and human resources that will strengthen the organization’s ability to serve its population and continuously improve its services.” Therefore, this sample Public Hospital System A plan’s Category 1 includes infrastructure development, including investment in people, places, processes and technology. This category is foundational to the success of Categories 2-3. This plan describes how the Category 1 infrastructure development will enhance capacity to conduct, measure and report on quality/performance improvement, expand access to meet demand, and enable improved care with strong emphasis on building coordinated systems that promote preventive, primary care.

### 1. Example Project: Increase Primary Care Capacity

- **Goal:** Public Hospital System A’s primary care capacity is only able to serve about 70,000 patients annually, compared to an estimated demand of 90,000. Primary care capacity, resources, infrastructure, and technology are severely limited. Our goal is to be able to better treat the volume of patients who need primary care in the primary care setting, with limited wait times. In order to provide more preventive, primary, and chronic care in the primary care setting, it is critical to expand primary care capacity. This includes increased efficiencies to maximize the capacity Public Hospital System A already has, as well as adding capacity so that we can treat more patients. In order to do this, we propose to:
  - Expand Primary Care Clinic Hours; and
  - Re-Integrate Urgent Care Services into Primary Care Clinics, in order to significantly reduce the need for a dedicated same day provider to see urgent care patients because instead, primary care teams will be able to see their own patients with urgent care needs. Enhanced capacity for each primary care team to see its own patients with urgent and ongoing needs enhances care continuity. The reintegration of urgent care services into primary care will require intricate planning.
- **Expected Result:** At least 90% of patients can get in to see their primary care team within 7 days as a result of expanding primary care capacity, including through expanded clinic hours and the reintegration of urgent care services into primary care.
- **Related Projects:** Expanded primary care capacity also feeds into the expansion of medical homes and more organized care delivery, better prevention and management of chronic conditions, integrated physical-behavioral health care, and better utilization of health care resources. With expanded primary care capacity, more patients can have access to primary and preventive care, which increases opportunities to prevent disease and treat it early, and patients upon discharge can be scheduled for follow-up appointments and care at a primary care clinic, thereby reducing the risk and consequences of worsening health conditions.

1. Example Project: Increase Primary Care Capacity					
Year 1	Year 2	Year 3	Year 4	Year 5	Related Projects
					• Expand Medical

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1. Example Project: Increase Primary Care Capacity					
Year 1	Year 2	Year 3	Year 4	Year 5	Related Projects
<p><b>1. Milestone:</b> Develop a plan to expand the hours of the primary care clinic to include evenings and weekends, as measured by (1) identification of current patient volume, (2) assessment of new patient waiting list, (3) development of plan to expand the hours, and (4) a plan to re-integrate urgent care services into primary care clinics.</p> <p>• <b>Metric:</b> Documentation of completion of all four items, including timeframes and submission of the proposed new clinic hours.</p>	<p><b>2. Milestone:</b> Implement a system to accommodate urgent care needs in at least 1 primary care clinic, as measured by achieving at least 15% of empaneled patients scheduled within 7 calendar days.</p> <p>• <b>Metric:</b> Third-Next- Available Appointment Available Within 7 Calendar Days: Number of Calendar days until third next available appointment.<sup>122</sup> The rate is an average, measured monthly, for all medical home clinics combined. It will be reported for the most recent month.</p>	<p><b>3. Milestone:</b> Expand the hours of the clinic by at least 8 hours per week.</p> <p>• <b>Metric:</b> Documentation of new clinic hours.</p> <p><b>4. Milestone:</b> Implement a system to accommodate urgent care needs in at least 1 additional (2 total) primary care clinics, as measured by achieving at least 30% of empaneled patients scheduled within 7 calendar days.</p> <p>• <b>Metric:</b> Third-Next- Available Appointment Available Within 7 Calendar Days: Number of Calendar days until third next available appointment.</p>	<p><b>5. Milestone:</b> Expand the hours of the clinic by at least 16 hours per week.</p> <p>• <b>Metric:</b> Documentation of new clinic hours.</p> <p><b>6. Milestone:</b> Implement a system to accommodate urgent care needs in at least 1 additional (3 total) primary care clinics as measured by achieving at least 60% of empaneled patients scheduled within 7 calendar days.</p> <p>• <b>Metric:</b> Third-Next- Available Appointment Available Within 7 Calendar Days: Number of Calendar days until third next available appointment.</p>	<p><b>7. Milestone:</b> Implement a system to accommodate urgent care needs in at least 1 additional (4 total) primary care clinics as measured by achieving at least 90% of empaneled patients scheduled within 7 calendar days.</p> <p>• <b>Metric:</b> Third-Next- Available Appointment Available Within 7 Calendar Days: Number of Calendar days until third next available appointment.</p>	<p>Homes (Cat. 2) – see pp. 6-7</p> <ul style="list-style-type: none"> <li>• Redesign Primary Care (Cat. 2) – see p. 8</li> <li>• Improve Screening Rates (Cat. 3)</li> <li>• Improve Chronic Care Management and Outcomes (Cat. 3)</li> <li>• Reduce Readmissions (Cat. 3)</li> </ul>

<sup>122</sup> Taken from IHI definition in white paper on whole system measures  
 Draft: For Example Purposes Only

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2. Example Project: Enhanced Interpretation Services

- **Goal:** At Public Hospital System A, 52% of patients speak a language other than English as their primary language. Effective communication is crucial to effective health care because patients need to understand their medications, interventions, and ongoing care. Public Hospital System A already begun work to make sure that all patients will receive equitable health care in their preferred language. This is a strategic priority because all patients should receive high-quality health care. As a safety net provider, it is a critical part of our mission to do so. Therefore, this project will improve communication between the patient and the provider so that patients can be more involved in their health care and better receive equitable health care. In this project, we are focusing on increasing patients' access to qualified health care interpretation in a timely manner. As a member of the Health Care Interpreter Network (HCIN), which is a cooperative of California hospitals and health care providers sharing trained health care interpreters through an automated video/voice call center system, we can connect within seconds to an interpreter on the HCIN system. When a language is not available from an interpreter at one of the HCIN hospitals, the call connects automatically to a contracted telephonic language provider. HCIN provides interpretation for 170 languages, including American Sign Language (ASL), 24/7. By pooling hospital-based staff, routing calls from video devices and telephones, and linking to external interpreting resources, HCIN enables clinicians and front-end staff at every point of patient contact to reach an interpreter on demand at a very manageable cost. HCIN is an advanced, cost-effective, and innovative solution to language access needs. However, we know that the system is not always used when it could be. These "failure to utilize" situations are often related to inadequate training of personnel or insufficient access to the technology. We need to improve HCIN use among providers and staff and expand its video capacity to all medical home and specialty clinics, and all inpatient areas to improve communications between patients and providers so that patients are fully involved in their care, and so that providers are able to fully understand their patients' health care needs.
- **Expected Result:** Expanded health care interpretation so that patients can receive instantaneous interpretation from a qualified health care interpreter, as evidenced by at least 1,500 qualified health care interpreter encounters per month, which is the estimated approximate current need.
- **Related Projects:** Better communication between patients and providers can reduce medical and medication errors, help better solve health-related issues, empower patients to manage their conditions, and reduce the possibility of complications and readmissions. Effective patient-provider communication is integral to high-quality care and a key measure of patient-centeredness and cultural competency.

2. Example Project: Enhanced Interpretation Services					
Year 1	Year 2	Year 3	Year 4	Year 5	Related Projects
8. <b>Milestone:</b> Develop a plan to expand the video use of HCIN to all patient care areas within the hospital and its outpatient clinics • <b>Metric:</b> Documentation of	9. <b>Milestone:</b> Conduct a gap analysis to determine HCIN hardware and training needs • <b>Metric:</b> Report the results of the gap analysis.	10. <b>Milestone:</b> Provide at least 1,000 qualified health care interpreter encounters per month <sup>123</sup> • <b>Metric:</b> Average number of HCIN plus in-person interpreter encounters recorded	11. <b>Milestone:</b> Provide at least 1,200 qualified health care interpreter encounters per month • <b>Metric:</b> Average number of HCIN plus in-person	12. <b>Milestone:</b> Provide at least 1,500 qualified health care interpreter encounters per month • <b>Metric:</b> Average number of HCIN plus in-person interpreter encounters recorded	• Reduce Readmissions (Cat. 3) • Improve Chronic Care Management and Outcomes (Cat. 3)

<sup>123</sup> The number of qualified health care interpreter encounters per month, based on one of the reporting months within the prior year. "Qualified health care interpreter" is defined as one who has: 1) been trained in healthcare interpreting; 2) adheres to the professional code of ethics and protocols of healthcare interpreters; 3) is knowledgeable about medical terminology; and, 4) can accurately and completely render communication from one language to another. This definition can be found in the California Health Care Safety Net Institute's *Straight Talk: Model Hospital Policies and Procedures on Language Access* <<http://www.safetynetinstitute.org/content/upload/AssetMgmt/Site/StraightTalkFinal.pdf>>.

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
**Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects**

2. Example Project: Enhanced Interpretation Services					
Year 1	Year 2	Year 3	Year 4	Year 5	Related Projects
plan, including workplan and timelines.		per month.	interpreter encounters recorded per month.	per month.	

3. Example Project: Collection of Accurate Race, Ethnicity, and Language (REAL) Data to Reduce Disparities

- **Goal:** Public Hospital System A’s patients are diverse: 58.5% are Hispanic/Latino, 14.7% are White, 4.9% are Black, 9.3% are Asian, and 12.6% Other. While Public Hospital System A may presume that health care disparities might exist, we are an enterprise that believes in using data to drive quality improvement. Therefore, we believe it is imperative to stratify quality data, such as clinical outcomes and interventions, by race, ethnicity and language (“REAL data”) so that we know the facts of where disparities exist. By having this knowledge, we will be able to target improvements in health care equity appropriately and effectively, and measure our progress along the way. Providing equitable care is critical to getting patients engaged in their care – every patient, regardless of who they are, deserves high quality health care. It is likely that race, ethnicity and language disparities exist both in accessing and receiving care; however, we have unreliable data by which to identify them. Therefore, it is our goal to develop the ability to: (1) Collect patient demographic data in a way that can be compared to quality and health outcomes data; (2) Stratify patient demographic data by outcomes to identify disparities; and (3) Engage in quality improvement projects to reduce health care disparities that have been identified.
- **Expected Result:** Data is available to identify disparities for at least 90% of patients.
- **Related Projects:** Reducing disparities in health care will support improved care for a multitude of Categories 3-4 projects through the provision of equitable health care.

3. Example Project: Collection of Accurate Race, Ethnicity, and Language (REAL) Data to Reduce Disparities					
Year 1	Year 2	Year 3	Year 4	Year 5	Related Projects
13. <b>Milestone:</b> Develop a plan to stratify patient outcomes and quality measures by patient demographic information such as race, ethnicity, gender, primary language, and literacy level (“REAL data”) in order to identify potential health care disparities and develop	14. <b>Milestone:</b> Establish data stratification and comparison processes for capturing accurate REAL data and linking it to quality data, including designating specified data fields for REAL data	15. <b>Milestone:</b> At least 70% of unique patients have the designated REAL data fields recorded as structured data • <b>Metric:</b> The percent of patients with Race, Ethnicity and Language (REAL) fields identified in the Electronic Health Record (EHR) ○ <b>Numerator:</b> Number of unique patients with designated REAL	16. <b>Milestone:</b> At least 80% of unique patients have the designated REAL data fields recorded as structured data • <b>Metric:</b> The percent of patients with Race, Ethnicity and Language (REAL) fields identified in the Electronic Health Record (EHR) ○ <b>Numerator:</b> Number of unique patients with designated REAL	17. <b>Milestone:</b> At least 90% of unique patients have the designated REAL data fields recorded as structured data • <b>Metric:</b> The percent of patients with Race, Ethnicity and Language (REAL) fields identified in the Electronic Health Record (EHR) ○ <b>Numerator:</b> Number of unique patients with designated REAL data fields recorded ○ <b>Denominator:</b> Number of total unique patients 18. <b>Milestone:</b> Perform REAL	<ul style="list-style-type: none"> <li>• Reduce Readmissions (Cat. 3)</li> <li>• Improve Screening Rates (Cat. 3)</li> <li>• Improve Chronic Care Management and Outcomes (Cat. 3)</li> <li>• Expand Medical Homes (Cat. 2) – see pp. 6-7</li> <li>• Redesign Primary Care (Cat. 2) – see p. 8</li> </ul>

**Attachment Q - Delivery System Reform Incentive Payments (DSRIP) Metrics**  
**Categories 1-2 – Infrastructure Development, Innovation and Redesign Improvement Projects**

**3. Example Project: Collection of Accurate Race, Ethnicity, and Language (REAL) Data to Reduce Disparities**

Year 1	Year 2	Year 3	Year 4	Year 5	Related Projects
strategies to facilitate equitable health care outcomes • <b>Metric:</b> Documentation of plan, including workplan and timelines.	recording • <b>Metric:</b> Documentation of established processes, including workplan and timelines.	data fields recorded ○ <b>Denominator:</b> Number of total unique patients	data fields recorded ○ <b>Denominator:</b> Number of total unique patients	data analysis and identify at least 2 specific health care disparities • <b>Metric:</b> Report the results of the analysis and provide documentation of the workplan, including timelines, to address and reduce the disparities	

**Category 2:** Per the Waiver Terms and Conditions, the purpose of Category 2 Innovation and Redesign is “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, this sample Public Hospital System A plan’s Category 2 includes the piloting, testing, and spreading of innovative care models. Public Hospital System A’s patient population experiences significant challenges associated with poverty, such as psychosocial barriers to health and multiple concurrent medical conditions. Public Hospital System A has had to get very creative to address the needs of the patient population with extremely limited resources. Public Hospital System A needs to further refine these innovations, test new ways of meeting the needs of our target populations, and disseminate learnings in order to spread promising practices.

#### 4. Example Project: Expand Medical Homes

- **Goal:** Only 20,000 of our patients are assigned to medical homes: thereby missing opportunities to provide better care through improved prevention screenings and routine primary and chronic care. Only about 60% of our providers are organized as care teams, while the remaining is still functioning in a more traditional approach. Only 1 of our 6 primary care adult clinics is organized as a medical home. We want to make sure the medical home model is embedded within our care delivery model so that all patients can receive the right care in the right place at the right time. This is a strategic priority for Public Hospital System A because by providing more patients with coordinated care services grounded in their primary care medical homes, patients can stay healthier, thereby reducing avoidable ED visits, admissions, and readmissions. Patients will receive this care in a proactive, planned manner so that they can receive evidence-based interventions. In 2007, Public Hospital System A opened a new primary care clinic, which piloted many components of what we believe should be spread and sustained throughout our primary care clinics. This initiative included comprehensive clinic redesign through which we implemented:
  - Medical home team-based care,
  - Expanded staff roles,
  - Performance outcomes measurement,
  - Effective use of health information technology (IT),
  - Coordination of care with support staff, and
  - Health promotion and education.

For example, staff includes nutritionists, social workers, community health workers and therapists. Services include group visits, case management, telephone outreach and home-health care. Team communication methods are in-person, via conference calls and other methods, including email and written reports. Public Hospital System A has piloted the medical home model, but needs to spread it throughout the hospital system. Right now, some primary care clinics are utilizing some components of these models, but not necessarily all. For example, while most clinics make some attempt to empanel patients, there is variation in the rigor of this process and inconsistency in commitment to scheduling patients with their designated care team.

- **Expected Result:** At least 90% of eligible patients are assigned to primary care teams serving as their medical homes (increasing from 20,000 empaneled patients to 30,000 empaneled patients, an increase of 10,000 empaneled patients or a 50% improvement). Care teams actively manage their patient panel so that patients are reminded of services needed and receive coordinated care rooted in a primary care setting. Patients know the professionals on their care team and establish trusting, ongoing relationships to reinforces a continuity of care.
- **Related Projects:** By spreading the medical home model to all of our primary care clinics in order to be able to empanel tens of thousands of patients comprehensively and systemically, we can make a real difference in the experience, results and cost of health care.

**4. Example Project: Expand Medical Homes**

Year 1	Year 2	Year 3	Year 4	Year 5	Related Projects
<p>19. <b>Milestone:</b> Develop and submit a plan, in conjunction with the Health Plan of County A, to empanel patients to primary care teams serving as medical homes to coordinate patients' health care needs. The system will include (1) restructuring staff; (2) utilizing information services technology to track the assignment of patients; and (3) designation of staff to actively manage patient panels.</p> <ul style="list-style-type: none"> <li>• <b>Metric:</b> Documentation of completion of all three items, including timeframes and submission of the proposed expansion of the system to empanel patients.</li> </ul> <p>20. <b>Milestone:</b> At least 60% of eligible patients<sup>124</sup> will be assigned to medical homes</p> <ul style="list-style-type: none"> <li>• <b>Metric:</b> Medical Home Assignment. To reap the full benefits of the medical home, a patient must have a consistent care team that they can rely on both for</li> </ul>	<p>21. <b>Milestone:</b> At least 65% of eligible patients will be assigned to medical homes</p> <ul style="list-style-type: none"> <li>• <b>Metric:</b> Medical Home Assignment                             <ul style="list-style-type: none"> <li>○ <b>Numerator:</b> Number of eligible patients assigned to a primary care provider</li> <li>○ <b>Denominator:</b> Number of eligible patients (patients seen at the same primary care clinic at least twice in last 12 months)</li> </ul> </li> </ul>	<p>22. <b>Milestone:</b> At least 70% of eligible patients will be assigned to medical homes</p> <ul style="list-style-type: none"> <li>• <b>Metric:</b> Medical Home Assignment                             <ul style="list-style-type: none"> <li>○ <b>Numerator:</b> Number of eligible patients assigned to a primary care provider</li> <li>○ <b>Denominator:</b> Number of eligible patients (patients seen at the same primary care clinic at least twice in last 12 months)</li> </ul> </li> </ul>	<p>23. <b>Milestone:</b> At least 75% of eligible patients will be assigned to medical homes</p> <ul style="list-style-type: none"> <li>• <b>Metric:</b> Medical Home Assignment                             <ul style="list-style-type: none"> <li>○ <b>Numerator:</b> Number of eligible patients assigned to a primary care provider</li> <li>○ <b>Denominator:</b> Number of eligible patients (patients seen at the same primary care clinic at least twice in last 12 months)</li> </ul> </li> </ul>	<p>24. <b>Milestone:</b> At least 90% of eligible patients will be assigned to medical homes</p> <ul style="list-style-type: none"> <li>• <b>Metric:</b> Medical Home Assignment                             <ul style="list-style-type: none"> <li>○ <b>Numerator:</b> Number of eligible patients assigned to a primary care provider</li> <li>○ <b>Denominator:</b> Number of eligible patients (patients seen at the same primary care clinic at least twice in last 12 months)</li> </ul> </li> </ul> <p>25. <b>Milestone:</b> Report shared learnings of the medical home model, and any findings related to impact on improved health, experience and cost</p>	<ul style="list-style-type: none"> <li>• Improve Preventive Screening Rates (Cat. 3)</li> <li>• Improve Chronic Care Outcomes (Cat. 3)</li> <li>• Reduce Readmissions (Cat. 3)</li> </ul>

<sup>124</sup> An "eligible patient" for the purposes of this section of this proposal is a patient seen by his or her primary care provider team at least twice within the last 12 months.



routine preventative care and for their urgent medical needs. ○ <b>Numerator:</b> Number of eligible patients assigned to a primary care provider ○ <b>Denominator:</b> Number of eligible patients (patients seen at the same primary care clinic at least twice in last 12 months)					
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5. Example Project: Primary Care Redesign

- **Goal:** We currently have about 1,800 patients waiting for primary care medical home appointments. It may be difficult for the patient to get a primary care appointment in a timely manner due to traditional office hours and the practice of medicine structured around the physician, not around the patient. In order to address this challenge, Public Hospital System A will redesign primary care to achieve increased efficiencies to maximize the capacity we already have. This plan seeks to build upon work we have started to standardize clinic-level data across Public Hospital System A so that we can better understand cycle time, wait times for primary care, and patient satisfaction. In order to do this, we propose to: (1) Build internal capacity with the resources we already have through implemented efficiencies that will reduce primary care cycle times, patient no-show rates, and days to third next available appointments; and (2) Implement the Patient Centered Scheduling Model so that patients can get in to see their primary care team when needed and when it is convenient for the patient to enable expanded access to primary care. Historically at Public Hospital System A, patient appointment “no-show” rates have been as high as 30%.
- **Expected Result:** Patient “no-show” to appointment rate is less than 10% as a result of improved access when it is convenient for the patient, and due to establishing an ongoing relationship with his/her care team that reinforces continuity of care.
- **Related Projects:** With increased access to primary care, patients are better able to receive preventive, primary and ongoing care, developing a continuity of care with their primary care team.

5. Example Project: Primary Care Redesign					
Year 1	Year 2	Year 3	Year 4	Year 5	Related Projects
26. <b>Milestone:</b> Develop a plan to build capacity into primary care	27. <b>Milestone:</b> Achieve at least a 25% or lower patient no-show rate for	28. <b>Milestone:</b> Achieve at least a 12% or lower patient no-show	29. <b>Milestone:</b> Achieve at least a 10% or lower patient no-show	30. <b>Milestone:</b> Maintain 10% or lower patient no-show rate for primary care	<ul style="list-style-type: none"> <li>• Improve Preventive Screening Rates (Cat. 3)</li> <li>• Improve Chronic</li> </ul>

<p>team schedules, including use of the Patient Centered Scheduling Model and resourcing and training staff in order to reduce patient appointment “no-show” rates</p> <ul style="list-style-type: none"> <li>• <b>Metric:</b> Documentation of the plan, including workplan and timeframes.</li> </ul>	<p>primary care medical homes<sup>125</sup> due to enhanced continuity of care and lasting relationships established between the provider and the patient</p> <ul style="list-style-type: none"> <li>• <b>Metric:</b> No-show rate <ul style="list-style-type: none"> <li>○ <b>Numerator:</b> Number of patients who missed an appointment in a medical home session</li> <li>○ <b>Denominator:</b> Number of patients scheduled for each session</li> </ul> </li> </ul>	<p>rate for primary care medical homes</p> <ul style="list-style-type: none"> <li>• <b>Metric:</b> No-show rate <ul style="list-style-type: none"> <li>○ <b>Numerator:</b> Number of patients who missed an appointment in a medical home session</li> <li>○ <b>Denominator:</b> Number of patients scheduled for each session</li> </ul> </li> </ul>	<p>rate for primary care medical homes</p> <ul style="list-style-type: none"> <li>• <b>Metric:</b> No-show rate <ul style="list-style-type: none"> <li>○ <b>Numerator:</b> Number of patients who missed an appointment in a medical home session</li> <li>○ <b>Denominator:</b> Number of patients scheduled for each session</li> </ul> </li> </ul>	<p>medical homes in order to demonstrate sustainability of the improvement for at least 4 consecutive quarters</p> <ul style="list-style-type: none"> <li>• <b>Metric:</b> No-show rate <ul style="list-style-type: none"> <li>○ <b>Numerator:</b> Number of patients who missed an appointment in a medical home session</li> <li>○ <b>Denominator:</b> Number of patients scheduled for each session</li> </ul> </li> </ul>	<p>Care Outcomes (Cat. 3)</p> <ul style="list-style-type: none"> <li>• Reduce Readmissions (Cat. 3)</li> </ul>
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6. Example Project: Increase Quality/Efficiency through Application of Lean Process Improvement Methodology

- **Goal:** The ultimate goal is that care throughout the system is: Safe – no harm; Effective – prevent disease and complications and minimize suffering, disability, and death; Efficient – the right care, without waste; Patient-Centered – informed, involved, educated, relieved of pain and suffering; Timely – without unwanted delay; and Equitable – the right care for ALL. In an effort to continue to provide high quality services to those needing care, Public Hospital System A has piloted a restructuring of its limited resources, including increasing efficiencies, eliminating waste and redundancies and improving quality, and shifting utilization of staff to be more focused on value-added activities. Our goal is to spread this work throughout the system. Lean work includes identifying value-added and non-value-added activities, fostering an organizational culture with a commitment to continuous quality improvement, and involving all relevant staff in helping to redesign processes

<sup>125</sup> For this and other milestones using this measure, measurement is determined based on the percentage of the patients scheduled for each session who did not show up for their medical home visit. The rate is an average measured monthly. This measurement would be based on the most recent reporting month.

- Category 2 continued -

to improve quality and flow and reduce waste. By providing safer, higher quality care, patients' health outcomes may improve, along with their experience of the care.

- **Expected Result:** Higher quality, more efficient patient care by implementing 12 Lean Kaizen events over five years to gain efficiencies and reduce waste and redundancies. Since this project is innovative and redesign-oriented, we will be reporting whether quality and efficiency are impacted and we will be sharing our learnings.
- **Related Projects:** Reduce 30-day all-cause readmissions for target clinical conditions and/or improve performance on CMS processes of care measures. The intention of more value-added work is also higher quality care, and Lean has been used as an effective method to focus on making impacts on patients' health and experience.

6. Example Project: Increase Quality/Efficiency through Application of Lean Process Improvement Methodology					
Year 1	Year 2	Year 3	Year 4	Year 5	Related Projects
<p>31. <b>Milestone:</b> Develop target for annual cost avoidance based on goal for reducing avoidable readmissions, and the capacity to measure progress toward the target.</p> <p>• <b>Metric:</b> Documentation of the establishment of the metric and a methodology to measure progress made toward the target over the course of the five years.</p>	<p>32. <b>Milestone:</b> Implement at least 3 Lean Kaizen rapid performance improvement events in at least 2 areas and train at least 5 providers and at least 10 staff.</p> <p>• <b>Metric:</b> Documentation that all of the steps included in the cycle of Kaizen were performed:</p> <ul style="list-style-type: none"> <li>• Standardized an operation</li> <li>• Measured the standardized operation (cycle time and amount of in-process inventory)</li> <li>• Gauged measurements against requirements</li> <li>• Innovated to meet requirements and increase productivity</li> <li>• Standardized the new, improved operations</li> <li>• Continued the cycle</li> </ul>	<p>33. <b>Milestone:</b> Implement at least 3 additional Lean Kaizen rapid performance improvement events in at least 1 additional area and train at least 10 providers and 10 additional staff.</p> <p>• <b>Metric:</b> # of Lean Kaizen rapid performance improvement events per measurement indicated in Year 2.</p>	<p>34. <b>Milestone:</b> Implement at least 3 additional Lean Kaizen rapid performance improvement events in at least 2 additional areas and train at least 5 additional providers and at least 10 additional staff.</p> <p>• <b>Metric:</b> # of Lean Kaizen rapid performance improvement events per measurement indicated in Year 2.</p>	<p>35. <b>Milestone:</b> Produce final report for costs for hospitalization for chosen specific primary diagnoses clinical conditions. Share the learnings from this redesign process toward improved quality, increased efficiency.</p> <p>• <b>Metric:</b> Submission of numerator and denominator established in Year 1, and comparison to the baseline and the target.</p>	<ul style="list-style-type: none"> <li>• Reduce Readmissions (Cat. 3)</li> <li>• Improve Quality (Cat. 3)</li> </ul>