Oregon Health Authority

Patient-Centered Primary Care Home Program

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Standards and Measures for Patient-Centered Primary Care Homes

Final Report of the Patient-Centered Primary Care Home Standards Advisory Committee
October 2012

Final Report Released 3/12/13

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The Patient-Centered Primary Care Home (PCPCH) is a model for primary care that has received attention in Oregon and across the country for its potential to advance the "Triple Aim" goals of health reform: a healthier population, extraordinary patient care and reasonable costs. Patient-Centered Primary Care Homes achieve these goals through a focus on wellness and prevention, coordination and integration of care, proactive management and support of individuals with chronic diseases and a patient-centered approach to all aspects of care.

During the 2009 legislative session, the Oregon Legislature enacted House Bill 2009, which created the Oregon Health Authority (OHA) and established a Patient-Centered Primary Care Home Program within the Office for Oregon Health Policy and Research (OHPR). The goals of the program are to develop strategies to identify and measure the quality of Patient-Centered Primary Care Homes, promote their development, and encourage populations covered by the Oregon Health Authority to receive care in this new model.

To assist OHPR in developing strategies to identify and measure primary care homes, the OHA Director appointed a 15 member Patient-Centered Primary Care Home Standards Advisory Committee (the "Committee") made up of a diverse group of Oregon stakeholders including patients, clinicians, health plans and purchasers. Over the course of seven meetings between October 2009 and January 2010, the committee developed six core attributes (Access to Care, Accountability, Comprehensive Whole Person Care, Continuity, Coordination and Integration and Person and Family Centered Care) and a number of standards that describe the care delivered by Patient-Centered Primary Care Homes. The committee articulated its core attributes and standards in patient-centered language in order to help communicate the benefits of this new model of care to the general public.

Using the framework of the core attributes and standards, the committee also developed a set of detailed Patient-Centered Primary Care Home measures. The core attributes, standards and measures are intended as a tool for OHA, policymakers and other Oregon stakeholders seeking a common framework to assess the degree to which primary care clinics are functioning as primary care homes and promote widespread adoption of the model. Cognizant about the evolving evidence base that supports the effectiveness of patient-centered medical homes, and the need to continuously improve and adapt the model to the health care needs of Oregonians, the OHA reconvened the committee in 2010 to ensure the Standards specifically addressed the need of children and their families.

This document represents another detailed review of the Standards by the committee in fall 2012 to refine the standards and measures of the model as the State proceeds with health care delivery system transformation. Among the proposed changes include clarifying and strengthening the existing measures, the addition of twelve new measures across the six core attributes, and increasing the total points available across the three tiers.

The proposed changes are designed to incrementally adapt the model to the changing health care needs of the state, align the model with the best evidence where it is available, and also to improve the effectiveness of the standards and measures overall.

The committee also re-examined the guiding principles proposed by the initial Standards Advisory Committee in 2009. These principles are meant to complement the Standards and are the key areas for policymakers to consider that would further the PCPCH model and successfully implement it in order for the State to achieve the Triple Aim goals of high quality care, improved health, and reduce costs. These guiding principles are divided into five categories: strategies for payment reform, incentives for delivery system change, strategies for measurement, encouraging continuous improvement and aligning incentives across the health care system.

Background:

The Oregon Health Fund Board (HFB) was formed in 2007 at the direction of the Oregon Legislature to develop a comprehensive plan for reforming Oregon's health care system. The Health Fund Board identified stimulating innovation and improvement within the health care delivery system as a key building block to achieving the "Triple Aim" of health care reform: a healthy population, extraordinary patient care for everyone, and reasonable costs shared equitably (OHFB, 2008a, and b). The HFB identified the development of Patient-Centered Primary Care Homes as a central strategy for improving the health care delivery system. In its report, *Aim High: Building a Healthy Oregon*, the HFB articulated that Patient-Centered Primary Care Homes would help achieve the Triple Aim in the following ways:

A Healthy Population
● Care is focused on wellness, prevention and chronic disease management

• Clinics actively evaluate the needs of the population they serve and improve their care

Extraordinary Patient Care
• Patients have personal, continuous relationships in patient-centered clinics

• Services people want and need are easily available

• Patients' health information is available to them and their clinicians

● Individual wishes about end-of-life care are known

Reasonable Costs
• Care is coordinated, reducing duplication and medical errors

• Chronic diseases are managed or prevented, reducing utilization of expensive acute services

The conceptual work of the Health Fund Board on primary care homes was incorporated into two pieces of legislation enacted during the 2009 legislative session. HB 2009 created the Oregon Health Authority, established the Oregon Health Policy Board, and established a Patient-Centered Primary Care Home program within the Office for Oregon Health Policy and Research (OHPR). HB 3418 required the Oregon Health Authority (OHA) to study the feasibility of alternative payment models for primary care homes within the Medicaid program.

To assist OHPR in developing strategies to identify and measure primary care homes, the OHA Director appointed a 15 member Patient-Centered Primary Care Home Standards Advisory Committee (the "Committee") made up of a diverse group of Oregon stakeholders including patients, clinicians, health plans and purchasers. Over the course of seven meetings between

October 2009 and January 2010, the committee developed six core attributes (Access to Care, Accountability, Comprehensive Whole Person Care, Continuity, Coordination and Integration and Person and Family Centered Care) and a number of standards that describe the care delivered by primary care homes. The committee articulated its core attributes and standards in patient-centered language in order to help communicate the benefits of this new model of care to the general public.

Using the framework of the core attributes and standards, the committee also developed a set of detailed primary care home measures. The core attributes, standards and measures are intended as a tool for the Oregon Health Authority (OHA), policymakers and other Oregon stakeholders seeking a common framework to assess the degree to which primary care clinics are functioning as primary care homes and promote widespread adoption of the model. Cognizant about the evolving evidence base that supports the effectiveness of Patient-Centered Medical Homes, and the need to continuously improve and adapt the model to the health care needs of Oregonians, the OHA reconvened the committee in 2010 to ensure the Standards specifically addressed the need of children and their families. The Oregon Health Policy Board included the Standards and the PCPCH model as a critical aspect of implementing health reform, and in their Action Plan of 2010, they set the goal of having 75% of all Oregonians cared for through PCPCHs by 2015. Additionally, implementing PCPCHs are a key aspect of Oregon's new coordinated care model across the healthcare delivery system starting with Medicaid were outlined in statute through HB 3650 (2011) and SB 1580 (2012).

This report contains the proposed standards and measures for the next phase of implementation by the 2012 standards advisory committee which was convened by the Oregon Health Authority to assist with the PCPCH model refinement process as the State proceeds with health care delivery system transformation. The recommendations and strategies contained in this report will inform the PCPCH Program, the Authority, the delivery system, and other stakeholders while aligning with state priorities and national efforts to transform primary care.

WORK OF THE PATIENT-CENTERED PRIMARY CARE HOME STANDARDS ADVISORY COMMITTEE

Enacted HB 2009 established the Oregon Health Authority (the Authority) and created the Patient-Centered Primary Care Home (PCPCH) Program. The key activities of the PCPCH Program as defined by HB 2009 are as follows:

1. *Define core attributes of the patient-centered primary care home* to promote a reasonable level of consistency of services provided by patient-centered primary care homes.

2. *Establish a simple and uniform process to identify patient-centered primary care homes* that meet the core attributes defined by the Authority.

3. *Develop uniform quality measures for patient-centered primary care homes* that build from nationally accepted measures and allow for standard measurement of patient-centered primary care home performance.

4. *Develop uniform quality measures for acute care hospital and ambulatory services* that align with the patient-centered primary care home quality measures.

5. *Develop policies that encourage the retention of, and the growth in the numbers of, primary care providers*.

The goal of the PCPCH Program is to improve the availability and affordability of high quality patient-centered primary care for all Oregonians though the promotion and development of Oregon's existing primary care infrastructure into PCPCHs. The 2012 Patient-Centered Primary Care Home Standards Advisory Committee ("the Committee") was therefore tasked to provide the Authority with policy and technical expertise in the next phase of implementation of the model. The committee revised the language of some measures to clarify intent and also added new measures that help to refine the model and further guide healthcare delivery toward transformation and better outcomes. Committee goals for this round of implementation included:

- *Expanding the model* as the next step in a step-wise implementation process and including new evidence that has become available since the last committee meetings.
- *Relying on a foundation of evidence* when possible.
- *Increasing the rigor of the model* so that practices are incentivized to continue along in the transformation process for those that have already achieved a "tier 3 status" while continuing to support practices currently achieving a "tier 1 status."

- *Focusing on the standards and measures*, recognizing that technical specifications consistent with the recommendations of the committee will need to be developed based on committee recommendations.
- *Minimizing the burden of reporting* wherever possible, while recognizing that measuring data in a standardized away allows for the model to be replicated and confirmed.

Scope of the committee's work

In addition to the specific language in HB 2009, the Committee was required to frame its work based on the following considerations:

- Standards and measures developed by the committee should be sufficiently broad to be applicable to primary care clinics of different sizes, with different patient populations and in different geographic regions across Oregon.

- Standards and measures should build on existing PCPCH, health system transformation, and quality measurement work in Oregon and seek to be broadly acceptable to all major stakeholders.

- While the committee will not consider payment reform specifically, standards should be developed with the goal of being used by public and private payers seeking to implement primary care payment reform to support the PCPCH model.

The committee held five public meetings from August 3rd to October 2nd 2012.

Background, Supportive Evidence, and Sources

The Oregon Legislature adopted the PCPCH model which is a variant of the medical home concept to help strengthen primary care delivery and improve the state's Triple Aim outcomes. The "medical home" concept, first articulated within the pediatric community in the 1960's incorporated both the core primary care domains and tools of the chronic care model into a single definition of the roles and functions of primary care clinics. The initial and subsequent Standards advisory committees integrated this historical knowledge and other sets of national and state-level definitions of medical home into the Oregon definition which delineates and emphasize six core attributes and fifteen standards of primary care based on a rich body of research (Institute of Medicine [IOM], 1978; Starfield, 1979; Saultz, 2001). Based on the committee's work and other inputs, PCPCH standards were implemented across the state as part of the enactment of HB 2009. At the time of this report, over 360 primary care homes have been recognized across Oregon by the PCPCH Program.

While the evidence suggests that medical homes can improve the structure, processes and outcomes of care, the evidence is still evolving (Enthoven, Crosson, & Shortell, 2007; Stange, Nutting & Miller, 2010; MEdpAC, 2008). The Authority therefore decided to implement the PCPCH model incrementally to obtain provider buy-in, allow for capacity building, improve the model's effectiveness, and continually adapt the model to the state's changing health care needs. The Authority also communicated its intention to reconvene the committee annually to further refine the model.

As part of preparation for the 2012 refinement meetings, the PCPCH Program commissioned a straw model of proposed changes to the 2010 standards and measures (refer to the committee tasks page for details). As part of developing the straw model, an extensive literature review was undertaken to provide an evidence base for the proposed changes. Among the other inputs for the straw model included a review of primary care home policy in the state and around the country, NCQA, NQF and other state's medical home standards and measures as well as feedback from stakeholders, providers, and clinics in the state. A composite document containing the evidence and references for the model refinement is provided in Appendix D and F.

The composition of the 2012 committee was drawn from the previous committee rosters and also contacts made to other stakeholders such as providers, experts and patients to gauge their interest and availability for the duration of the review and refinement process. The types of stakeholder groups represented were expanded for this committee. The committee met five times during the review and refinement process. The proposed changes to the PCPCH standards and measures for implementation in 2013 and other measures for consideration during future refinements are therefore provided in Appendix C and E respectively.

The 2012 committee served as a rules committee. The updated standards will be submitted as Oregon Administrative Rules (OARs), and will be available for further public comment after submission. Clinics will be given at least 6 months notice before changes would be effective.

In addition, the technical specifications for the standards and measures will need development and revision based on this update. Several committee members and specific area experts will comprise a Technical Assistance Group (TAG) to assist program staff to update the accompanying PCPCH Technical Assistance and Reporting Guidelines and the Implementation Guide for the newly revised measures.

PCPCH Core Attributes and Standards

The 2012 committee reviewed and reaffirmed the six Core Attributes and fifteen PCPCH standards shown in Figure A and B. The Core Attributes and Standards of the PCPCH model build on the conceptual work of the HFB, the Oregon Legislature as well as other national and state efforts to describe the primary care home model. They are also intended to establish a common framework for understanding the structure and functions of a primary care home from

the perspectives of patients and families. The committee agreed that using patient-centered language for the standards helps to clarify the benefits of a primary care home to patients and the general public.

Oregon's PCPCH model is unique in the relationship between the six core attributes and the fifteen standards. This arrangement helps to define specific measures for each domain and also guide practices on their transformational paths. The core attributes and standards are therefore aspirational to a well-functioning delivery system that is working towards achieving the state's Triple Aim and the Authority's vision of "world class health" for every Oregonian.

Figure A: Core Attributes of Patient-Centered Primary Care Homes

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ACCESS TO CARE

"Health care team, be there when we need you"

ACCOUNTABILITY

"Take responsibility for making sure we receive the best possible health care"

COMPREHENSIVE WHOLE PERSON CARE

"Provide or help us get the health care, information and services we need"
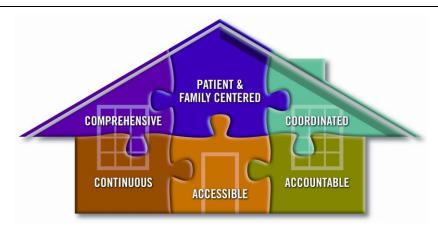
CONTINUITY

"Be our partner over time in caring for us"

COORDINATION AND INTEGRATION

"Help us navigate the health care system to get the care we need in a safe and timely way"

PERSON AND FAMILY-CENTERED CARE

"Recognize that we are the most important part of the care team - and that we are ultimately responsible for our overall health and wellness"

PCPCH Measures

The committee used the basic framework of its core attributes and standards to develop a more detailed set of PCPCH measures. The proposed measures provide a specific blueprint for the changes needed to move from today's primary care system to a more ideally functioning system. Unlike the core attributes and standards, the proposed measures are not aspirational. They are intended as a functional tool that can be used to recognize clinics currently delivering primary care home functions and support payment reform or other incentives that will drive an increasing number of clinics towards functioning as advanced primary care homes.

The committee also affirmed the current tier system for recognizing primary care homes and endorsed its continuing use. The proposed measures are divided into three "tiers" that reflect basic to more advanced primary care home functions. Tier 1 measures focus on foundational primary care home elements that the committee believes should be achievable by most primary care clinics in Oregon with significant effort, but without significant investment of new resources. Tier 2 and tier 3 measures on the other hand reflect intermediate and advanced functions, with a focus on demonstrating improvements in care processes or outcomes. The main distinguishing features among the different tiers are as follows: tier 1 practices should be able to track care processes through data reporting or by attestation, tier 2 practices should be able to use tracking mechanisms for specific practice improvement while tier 3 practices should be able to track, improve and meet predetermined improvement goals or benchmarks. Irrespective of tier, each practice is required to at a minimum meet 10 "must-pass" measures.

New "Must Pass" Measures

The 2011 PCPCH standards include 10 must-pass standards distributed across the attributes to establish a minimum common set of services that define a primary care home. Given that measure 4F (Care Setting Transitions) was rewritten, and moved to tier 1, the committee decided to promote Measure 6D (Experience of Care) to a must-pass measure. This means that all clinics applying for PCPCH recognition will have to attest to engaging a sample of their patients regarding their experience of care.

Medication management has been added to Measure 3B as a critical service that all primary care homes should provide. This is further explained below with the other measures related to pharmacy services.

Given the high number of clinics meeting the benchmark for Measure 4A (PCP Assignment) this will now be a must-pass requirement. The committee felt assignment of PCPs is a critical responsibility of primary care homes and is required to operate effectively.

New Pharmacy Measures

A pharmacist, a key delivery system stakeholder and partner for primary care homes, was included on the Standards Advisory Committee for this update. This resulted in several new constructs for

inclusion in the standards and measures. The main source of evidence for this update was a review completed by the Patient-Centered Primary Care Collaborative further discussed in Appendix E (2012). Recognizing that medication therapy is a substantial cost and safety issue, the committee suggests that every primary care home addresses patient prescription needs, as outlined under Measure 3B (Medical Services) which is a must-pass metric.

Measure 4G (Medication reconciliation) is a new measure that is consistent with stage1 measures of EHR meaningful use. The inclusion of medication reconciliation and management is based on evidence of significant health problems that are caused in part by medication errors (Barker, Flynn, Pepper, Bates, & Mikeal, 2002; The Commonwealth Fund, 2012). A comprehensive approach to providing effective primary care should address the issues of medication errors. Several tools and measures have been developed to address medication reconciliation and management in primary care settings (Pronovost, West, & Schwarz, 2003; Hammond & Barba, 2011; The Commonwealth Fund, 2012). This is also a critical component to care transitions for complex patients.

Measure 1F (Prescription Refills) has been added because timely prescription refills have been identified as crucial to patient adherence to prescribed medical regimens and control of chronic conditions. In a study of diabetic patients with uncontrolled blood sugar, 21% of the patients indicated that their inability to obtain prescription refills was the cause of their non-adherence (Odegard & Gray, 2008). Great Britain's National Health Service has implemented a similar measure. Adding this measure is intended to start quantifying this issue.

New Access Measures

A review of standards in similar programs around the country (Colorado, Minnesota, Oklahoma and Vermont) revealed that each program emphasized same-day scheduling and its importance to achieving the following outcomes: decreased wait times, decreased visit backlogs, decreased no-show rates, and increased patient satisfaction (Oklahoma Health Care Authority [OHCA], 2009; Takach, 2011; Solberg, 2011; Minnesota Department of Health [MDH], 2012). Therefore, a new measure (1C) has been added to promote inclusion of same day access.

Additionally, electronic access to patient health information has been added as a tier 3 measure (1E). Patients have indicated that this mode of communication is highly desirable (Hassol, 2004). A majority of patients also preferred online communication for renewing prescriptions and for getting answers to general medical questions (Hassol, 2004). Comparable results were also found in a study of electronic access in Kaiser (Zhou, Garrido, Chin, Wiesenthal, & Liang, 2007). These studies also found that patients were able to easily use and access the electronic systems regardless of patient educational background.

New Accountability Measures

As a health policy tool, the use of public reporting is increasing; for example, the National Committee for Quality Assurance (NCQA), Joint Commission, and Centers for Medicare and Medicaid Services (CMS) require some level of public reporting. Given state-wide opportunities to participate in

reporting, compliance with the public reporting measure (2B) requires the clinic to refrain from "opting out" of these initiatives.

While all practices aspire to be responsive to the needs of patients and families, formalizing these processes has concrete advantages. In addition to surveying about satisfaction, "If patient and family input is emphatically built into systems of performance improvement, and if patients and families are taken seriously and are respected for their valuable perspectives about how care can be improved, then organizations can improve at improving" (Angood, Dingman, Foley, Ford, Martins, O'Regan, et al., 2010). Measure 2C (Patient, Caregiver, and Family Involvement in Quality Improvement) was developed with input from several experienced stakeholders representing patients.

While quality improvement (QI) is implicit to several other measures, the committee wanted to provide a roadmap for clinics in their efforts to transform (Measure 2D). Having a formal QI program is an essential requirement of Medical Homes (MEdpAC, 2008). While the size of clinic will influence the extent of QI processes, having a QI strategy will help practices to collect and analyze data to provide feedback of clinics capacity to meet predetermined quality, safety and other patient level goals (Audet, Doty, Shamasdin, & Schoenbaum , 2005; Berwick, Nolan & Whittington, 2008; Stange et al, 2010). Current NCQA and other Medical Home standards require QI programs in the following areas: patient tracking and registry, care management, self-management support, electronic prescribing, test and referral tracking as well as performance reporting and improvement (NCQA, 2010).

Measurement of ambulatory sensitive utilization (2E) is an advanced function of primary care homes. Specifications for this measure align with other requirements of Coordinated Care Organizations (see page 17).

New Comprehensiveness Measures:

Measure 3E (Preventive Services Reminders) is designed to strengthen the provision of preventive care services through proactive reminders, outreach, and follow-up care (Davis, Schoen, & Stremikis, 2010).

New Continuity Measures:

Committee members agreed to include measure 4E (Planning for Continuity) because of growing problems with workforce turn over and its likely effects on all aspects of care continuity for patients, especially in small primary care clinics. It is therefore important to encourage clinics to plan for workforce changes by demonstrating a mechanism to reassign administrative requests, prescription refills and clinical questions when a provider is not available.

New Coordination and Integration of Care Measures:

Measure 5C (Coordination of Complex Care) requires providers of preventive services to develop individualized care plans and reminders for preventive care. A review of NCQA standards and measures, and also Medical Home standards and measures in Minnesota, Oklahoma and Colorado

show that each model emphasizes different variations of individualized care plans and reminders as part of their evaluation of preventive care services (OHCA, 2009; NCQA, 2011; MDH, 2012).

New Person- and Family-Centered Care Measures:

Measure 6A (Written translations) reflects a reality of the patient population served by primary care homes in Oregon. Translation of appropriate documents results in improvement in clinical outcomes (Larson, 2005; Mallinger, Griggs & Shields, 2005; Williams, 2007; National Quality Forum [NQF], 2009). The justification for this change is also based on the importance of improving access and reducing health care disparities (Saha, Beach & Cooper, 2008; Teal & Street, 2009). The National Quality Forum's standards require the translation of all vital documents, at a minimum, into the identified threshold languages for the community that is eligible to be served and also, the translation of written materials that are not considered vital when it is determined that a printed translation is needed for effective communication (NQF, 2009; Goode, Harris & Wells, 2009). The technical specifications for this measure require translation of critical documents for all languages spoken by at least 30 families in the patient population of PCPCH.

Information exchange is an essential component of patient/family-centered care. Measure 6B (Communication of Patient Rights, Roles and Responsibilities) is intended to facilitate this exchange between patients and providers. Clarifying patient and family roles and responsibilities as part of a care team during a patient or family's first visit can be effective towards building long lasting and trusting relationships. The available evidence shows a strong association between information sharing and the following outcomes: patient empowerment, self-management in better adherence to medications, improved chronic disease control and reduced costs of care (Stewart, Brown & Donner, 2000; Street, Makoul, Arora & Epstein, 2009; Nutting, Miller & Crabtree, 2009).

Caring for children/adolescents

In the 2011 PCPCH model, it is possible for practices that saw both children and adults to apply for PCPCH recognition without demonstrating care for both of these populations. Therefore, measure 3A, 3C, and 3D now require inclusion of both groups, if both groups are represented in the primary care homes' patient population.

Tiering Considerations

The PCPCH measures are divided into levels or "tiers" that reflect basic to more advanced primary care home functions. Tier 1 measures focus on foundational primary care home elements that the committee felt should be achievable by most primary care clinics in Oregon with significant effort, but without investment of new resources. Tier 2 and tier 3 measures reflect intermediate and advanced functions, with a focus on demonstrating improvements in care processes or outcomes at tier 2 and meeting a benchmark when possible at tier 3. However, in proposing three tiers of primary care home measures, the committee did not intend to suggest that a clinic should be required to meet all measures in a specific tier to be recognized at that tier level.

In the proposed 2013 model, 375 total points are allocated and available across all tiers. The greatest expansion in available points, as compared to the 2011 model, has occurred at tier 2. This reflects the committees desire to make tier 3 more representative of true clinic-wide transformation. Given the increase in total points available across all tiers, and using the same relative distribution for determining a practice's overall tier level as the 2011 model, below would be the point cut offs for PCPCH recognition in the proposed 2013 model:

- Tier 1: 60-130 points and all 10 must-pass measures
- Tier 2: 135-250 points and all 10 must-pass measures
- Tier 3: 255-375 points and all 10 must-pass measures

The committee also emphasized that the proposed measures are necessary but not sufficient for primary care home practice transformation. Practices that have the capacity to improve beyond the proposed measures should therefore be encouraged to do so. The committee therefore created a new category called measures in development, to identify aspirational measures that would be ideal, but are not uniformly achievable to measure in the current system. These measures were proposed but the group did not reach consensus on including them at this time, and will therefore serve as the foundation for future model refinements (see appendix D).

Figure B: Functional Capacity of Basic, Intermediate, and Advanced Primary Care Homes

Tier 3: Advanced Primary Care Home
•Mature performance improvement capacity and ability to manage populations of patients

•Accountable for quality, utilization, and cost of care

•Meets most tier 2 and tier 3 measures

Tier 2: Intermediate Primary Care Home
•Demonstrates performance improvement

•Additional structure and process improvements

•Meets many tier 2 or tier 3 measures

Tier 1: Basic Primary Care Home
•Foundational structures and processes in place

Guiding Principles

The Oregon Health Authority has recognized that health care delivery systems are not ideal and do not currently produce optimal health or health care for Oregonians. Therefore, Oregon has started a process of transformation with the development of new solutions, including Coordinated Care Organizations (CCOs) and CoverOregon, Oregon's new Health Insurance Exchange. However, the committee expressed concerns that primary care is among the most vulnerable components of the health care delivery system and faces a variety of challenges, including a declining workforce, increased fragmentation of care, high administrative burdens and many unpaid services. While the committee felt that thoughtful and gradual movement towards the PCPCH measures could produce the benefits envisioned by the OHA, they also expressed concern that misapplication of the proposed measures and misalignment of incentives against sustainability of the PCPCH care model could worsen the current challenges facing primary care, especially in rural and underserved communities in Oregon.

The first PCPCH Standards Advisory Committee recommended that the OHA and others consider the following guiding principles in the application of the proposed standards and measures for Patient-Centered Primary Care Homes (OHA, 2010). The guiding principles are divided into five broad categories: strategies for payment reform, providing incentives for delivery system change, strategies for primary care home measurement, encouraging continuous improvement, and aligning the health care system around primary care homes.

Strategies for Payment Reform

1. Payment reform is an essential step for developing Patient-Centered Primary Care Homes. Currently, primary care clinics use fee-for-service payments to fund essential but unpaid primary care functions such as care coordination. This type of payment model fails to recognize the complexity and intensity of primary care, devalues the work of all members of the primary care team, contributes to overwork and burnout of clinicians, does not assess and reward quality care, and decreases opportunities for meaningful communication between patients and their health care teams.

2. The basic primary care home functions proposed in the attached standards and measures (tier 1) should be achievable by most primary care clinics in Oregon (regardless of size, patient mix or geographic location). Additional resources will be required for clinics to achieve many advanced (tier 2 and tier 3) primary care home functions. Requiring primary care clinics to meet advanced primary care home measures without additional resources or an adequate workforce will exacerbate existing workforce shortages and could worsen health disparities in underserved populations.

3. Payment for primary care homes should be risk-adjusted based on a broad set of factors that increase the complexity of delivering and coordinating care (e.g. medical complexity, primary language, socioeconomic factors, rates of behavioral risk factors and mental illness, etc.). Risk-

adjusted payment models should include adequate payments for all patients, including those in the lowest risk groups.

4. Payment mechanisms for primary care homes should include both ongoing payments that adequately support their infrastructure (systems, staffing, etc.) and incentive payments based on outcomes. Whenever possible these payment systems should be aligned across the system, for all payers.

5. If there is upfront investment, it is reasonable to expect advanced (tier 3) primary care homes to be accountable, in part, for unnecessary or preventable utilization and the risk-adjusted overall cost of health care within their patient populations. To do this, primary care clinics must have timely access to patient-level cost and utilization data.

Providing Incentives for Delivery System Change

6. HB 2009 and today's Oregon Health Policy Board believe that providing a primary care home for every Oregonian could move Oregon's health care system towards the "Triple Aim" goals of a healthy population, extraordinary patient care and reasonable costs. Achieving these goals will require moving the entire primary care delivery system towards functioning as "advanced" primary care homes regardless of payer, size, or location.

7. Primary care home measures are intended to be applied to an entire clinic or all patients served by a clinic, regardless of whether patients are publically or privately insured. Care coordination and other services provided by a primary care home are of potential benefit to all patients, not just those with specific chronic diseases.

8. Any clinic that is willing to assume responsibility for providing comprehensive, longitudinal care to a population of patients (such as a community mental health center) should be eligible to be measured and receive payments as a primary care home.

9. Primary care home payments and incentives should reward both current levels of high performance and incremental delivery system improvements.

Strategies for Primary Care Home Measurement

10. Primary care home measures should be applied consistently across public and private health payers, to provide clinics with a uniform set of expectations, but with flexibility in how clinics can demonstrate they are meeting the intent of particular measures. Therefore, measures should focus on outcomes whenever possible.

11. The process of primary care home measurement should seek to minimize the administrative burden on and cost to individual clinics and provide constructive feedback to primary care clinics. Alignment of metrics across all payers is therefore crucial.

12. Evaluation criteria for primary care homes should be transparent to all parties, including consumers, clinics, health plans and purchasers.

13. Primary care home performance and improvement over time should be measured using internal clinical data, such as data directly from a clinic's electronic health record and patient and family involvement, in addition to external data, such as claims data, whenever possible.

Encouraging Continuous Improvement

14. Learning collaborative and other mechanisms to spread learning and speed delivery system change and integration should be developed and financed in conjunction with efforts to measure primary care homes. Primary care clinics should receive support for participation in learning collaborative; especially those clinics that are early adopters of the PCPCH model and can share their learning with others. OHA's newly launched Patient-Centered Primary Care Institute will provide a broad array of resources over the coming year, including establishing the first PCPCH learning collaborative. Sustainability of these activities beyond 2013 will be critical to maintain support of primary care transformation.

15. Developing primary care homes will require clinicians and staff of primary care clinics to develop new skills and take on new roles as members of a primary care team. Efforts to improve the primary care workforce must include both support for continuing education of current clinicians and clinic staff as well as changes in training programs that produce the future primary care workforce.

Aligning the Health System Around Primary Care Homes

16. Communication within the health care system is critical to the success of primary care homes. Other health care providers and facilities should be required to identify each patient's primary care home, communicate with them in a timely manner, and participate in care coordination.

17. A robust "health care neighborhood" is required to support the primary care home. Clinics should be encouraged to partner with local public health agencies and community organizations to educate patients, identify community health priorities, and develop plans to improve the overall health of their communities. Public Health departments and other agencies and organizations that make up the "health care neighborhood" must have sufficient and stable funding to carry out these roles.

18. Primary care home measurement should be integrated and aligned with other efforts to improve health care quality or delivery (e.g. health information technology incentives, quality improvement programs, pay for performance incentives and the development of accountable care organizations).

APPENDIX A - 2012 COMMITTEE ROSTER
Patient-Centered Primary Care Home (PCPCH) Standards Advisory Committee

Chair
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Patty Black
Peace Health Medical Group Patient Advisory
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APPENDIX: B – CORE ATTRIBUTES AND STANDARDS

Core Attributes and Standards for Patient-Centered Primary Care Homes

Core Attribute: ACCESS TO CARE
"Health care team, be there when we need you."
- Make it easy for us to get care and advice for ourselves and our family members.
- Provide flexible, responsive options for us to get care in a timely way.

Standard: In-Person Access
- Make sure we can quickly and easily get an appointment with someone who knows us and our family.
- Ensure that office visits are well-organized and run on time.

Standard: Telephone and Electronic Access
- Make sure we know what to do if we need or want help when your office is closed.
- Provide multiple ways for us to easily get care or advice outside of office visits.

Standard: Administrative Access
- Respond to our requests for help with refills, paperwork, etc. in the most efficient way possible to meet our needs.

Core Attribute: ACCOUNTABILITY
"Take responsibility for making sure we receive the best possible health care."

Standard: Performance Improvement
- Work to improve the care and services you provide and ask us for feedback and ideas about what to improve.
- Publically report information about the safety, quality and cost of the care you provide.
- Show us what you are doing to ensure we will get the right care while avoiding unnecessary care.
- Involve us in helping to decide areas for improvement.

Standard: Cost and Utilization
- Keep us informed about the relative costs, benefits and risks of the different options for our care so we can make informed decisions.
- Do not prescribe tests, medications, procedures or referrals that are unnecessary or do not improve our quality of life.

Core Attribute: COMPREHENSIVE WHOLE PERSON CARE
"Provide or help us get the health care, information, and services we need."

- Help us get prevention services, acute care, care for ongoing problems, and help for mental health conditions or problems with substance or alcohol use.

- Help us understand our health risks and/or conditions and give us tools and support to manage my own care.
- Ask questions about who we are, our strengths and weaknesses, what we do, and where we live, to help care for us.

Standard: Scope of Services
- Provide or coordinate most of the care we need for common problems at your clinic.

Core Attribute: CONTINUITY
"Be our partner over time in caring for us."
- Let us choose our personal clinician.
- Know who we are and remember important information about our health histories, needs and values.
- Help us make well-informed decisions about our health and health care.

Standard: Provider Continuity
- Make sure we can choose a personal clinician and health care team who know and understand us.
- Make sure we can see or talk with our chosen personal clinician or team when we need to.

Standard: Information Continuity
- Make sure that all health professionals caring for us have access to up-to-date and accurate information about our health histories and values.
- Make sure that our personal health information is always protected and kept private.
- Make it easy for us to access our personal health information.

Standard: Geographic Continuity
- Stay involved in our care wherever we go within the health care system, and help us to coordinate our care across places and people.

Core Attribute: COORDINATION AND INTEGRATION
"Help us navigate the health care system to get the care we need in a safe and timely way."

- Make sure we understand what care or services we need to stay healthy, to manage the problems we have, and where to get them.
- Stay involved in our care and help us avoid unnecessary tests, procedures or interventions.

Standard: Data Management
- Follow our care closely and let us know when tests or checkups are needed.
- Make sure we understand which tests, prevention services, and guidance are recommended to improve our health.

Standard: Care Coordination
- When we need to go to other providers or places for care or services help us coordinate and plan our care without delays and confusion.
- When we need to see a specialist or get a test, help us get what we need at your clinic whenever possible, and stay involved when we get care in other places.
- Make sure we understand the reasons for sending us to a specialist or for a test, prepare us for what to expect, and follow up with us to make sure we understand the results.

Standard: Care Planning
- Help us and our families set goals and plan our care in a way that is understandable and meets our needs
- Provide us with the information we need to care for our own illness, and help us actively care for ourselves.

Core Attribute: PERSON AND FAMILY CENTERED CARE
"Recognize that we are the most important part of the care team – and that we are ultimately responsible for our overall health and wellness."

- Listen to us and our families and caregivers and promote experiences that enhance our independence and control over our health.
- Respect our culture and values and build a relationship with us that is responsive to our needs and preferences.

Standard: Communication
- Communicate in a manner we understand.
- Explain things in ways that make it easy for us to understand and check to be sure we understand.
- Share information in an unbiased way.

Standard: Education and Self-Management Support
- Respect our strengths, our capacity to learn, and engage us as partners in managing our health.
- Help us know the best ways to maintain our health and manage our problems.
- Invite us to set goals for our health and support our efforts to change.

Standard: Experience of Care
- Regularly ask us and our families about our care experience.
- Value our feedback and use this information to improve the way we work together.

APPENDIX: C – PROPOSED 2013 PCPCH STANDARDS AND MEASURES

(A)- Attestation   (D)- Requires Data submission

Core Attribute #1: Access to Care *"Health care team, be there when we need you."*				
Standard	**Must-Pass** ✔	**Tier 1** **5 points each**	**Tier 2** **10 points each**	**Tier 3** **15 points each**
1.A) In-Person Access	N/A	**1.A.1** PCPCH surveys a sample of its population on satisfaction with in-person access to care (A).	**1.A.2** PCPCH surveys a sample of its population using one of the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey tools[1], reports results, and demonstrates improvement on the access to care domain. (D)	**1.A.3** PCPCH surveys a sample of its population using one of the CAHPS survey tools, reports results on the access to care domain, and meets a benchmark on patient satisfaction with access to care. (D)
1.B) After Hours Access	N/A	**1.B.1** PCPCH offers access to in-person care at least 4 hours weekly outside traditional business hours[2]. (A)	N/A	N/A
1.C) Same Day Access	N/A	**1.C.1** PCPCH provides same day appointments[3] (D).	N/A	N/A

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[1] Acceptable Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey tools include the Health Plans and Systems, Clinician and Group, and Patient-Centered Medical Home Modules.

[2] Traditional Business Hours are defined as 8AM-5PM.

[3] To meet the intent of this measure, clinics would reserve some appointments for patients that call that day with urgent needs.

Standard	Must-Pass ✓	Tier 1 5 points each	Tier 2 10 points each	Tier 3 15 points each
1.D) Telephone & Electronic Access	**1.D.0** PCPCH provides continuous access to clinical advice by telephone. (A)	**1.D.1** When patients receive clinical advice via telephone, these telephone encounters (including after-hours encounters) are documented in the patient's medical record.	N/A	N/A
1.E) Electronic Access	N/A	N/A	N/A	**1.E.3** The PCPCH provides patients with an electronic copy of their health information upon request (A).
1.F) Prescription Refills	N/A	**1.F.1** PCPCH tracks the time to completion[4] for prescription refills (A).	N/A	N/A

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[4] Please see technical specifications for more details, but refills are considered complete when they have been signed.

Core Attribute #2: Accountability
"Take responsibility for making sure we receive the best possible health care."

Standard	Must-Pass ✔	Tier 1 5 points each	Tier 2 10 points each	Tier 3 15 points each
2.A) Performance & Clinical Quality	**2.A.0** PCPCH tracks and reports to the Program one quality metric from core or menu set of PCPCH Quality Measures[5]. (D)	**2.A.1** PCPCH tracks and reports to the OHA two measures from core set and one measure from the menu set of PCPCH Quality Measures [6]. (D)	**2.A.2** PCPCH demonstrates improvement on two measures from core set and one measure from the menu set of PCPCH Quality Measures[6]. (D)	**2.A.3** PCPCH tracks, reports to the OHA and meets benchmarks on two measures from core set and one measure from the menu set of PCPCH Quality Measures [6].(D)
2.B) Public Reporting	N/A	**2.B.1** PCPCH participates in a public reporting program for performance indicators (A).	**2.B.2** Data collected for public reporting programs is also shared within the PCPCH (with providers and staff) for improvement purposes (A).	N/A
2.C) Patient and Family Involvement in Quality Improvement	N/A	**2.C.1** PCPCH involves patients, caregivers, and families as advisors on at least one quality or safety initiative per year (A).	**2.C.2** PCPCH has established a formal mechanism to integrate patient, caregiver, and family advisors as key members of quality, safety, program development and/or educational improvement activities(A).[7]	**2.C.3** Patient, Caregiver, and Family advisors are integrated into the PCPCH and function in peer support, or in training roles(A).

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[5] Details about the core and menu set, along with the technical specifications for all measures, are available on the Program website.

[6] At least one reported measure must be inclusive of children or adolescents if the PCPCH population includes those age groups.

[7] A Patient, Caregiver, and Family Advisory Council that is embedded in the organizational chart and routinely reviews patient experience of care and quality and safety measures for the clinic would satisfy this requirement.

Standard	Must-Pass ✓	Tier 1 5 points each	Tier 2 10 points each	Tier 3 15 points each
2.D) Quality Improvement	N/A	**2.D.1**: The PCPCH uses performance data to identify opportunities for improvement and acts to improve clinical quality, efficiency and patient experience(A).	**2.D.2** The PCPCH utilizes improvement teams that are multi-disciplinary and meet regularly to review timely, actionable, team-level data related to their chosen improvement project and documents their progress (A).	**2.D.3** PCPCH has a documented clinic-wide improvement strategy with performance goals derived from patient feedback, publicly reported measures, and areas for clinical and operational improvement identified by the practice. The strategy includes a quality improvement methodology, multiple improvement related projects, and feedback loops for spread of best practice (A).
2.E) Ambulatory Sensitive Utilization	N/A	**2.E.1** PCPCH selects and reviews utilization measures most relevant to their overall or an at-risk patient population(A).	**2.E.2** PCPCH sets goals and works to optimize utilization through: monitoring utilization metrics or measures closely linked to utilization on a regular basis, and enacting strategies which are documented to reduce utilization (A).	**2.E.3** PCPCH shows improvement or meets a benchmark in utilization metrics on measures closely linked to utilization (D).

Core Attribute #3: Comprehensive Whole Person Care				
"Provide or help us get the health care, information, and services we need."				
Standard	Must-Pass ✓	Tier 1 5 points each	Tier 2 10 points each	Tier 3 15 points each
3.A) Preventive Services	N/A	**3.A.1** PCPCH has assessed current preventive medical care offerings, as compared to a standard (that includes all age and gender appropriate services), and has identified areas for improvement (A).	**3.A.2** PCPCH has an improvement strategy in effect to address gaps in preventive medicine offerings as appropriate for the PCPCH patient population (A).	**3.A.3** PCPCH ensures the delivery of 90% of all recommended age and gender appropriate preventive services.[8] (A)

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[8] The technical specifications will include the full list of requirements specific to adults, elderly patients, women, children, and adolescents. The full list of services receiving a United States Preventive Services Task Force (USPSTF) Grade A or B can be found at: http://www.uspreventiveservicestaskforce.org/uspstf/uspsabrecs.htm. The Bright Futures list of recommended services and periodicity can be found at: http://brightfutures.aap.org/pdfs/AAP%20Bright%20Futures%20Periodicity%20Sched%20101107.pdf.

Standard	Must-Pass ✔	Tier 1 5 points each	Tier 2 10 points each	Tier 3 15 points each
3.B) Medical Services	**3.B.0** PCPCH reports that it routinely offers all of the following categories of services: Acute care for minor illnesses and injuries; Ongoing management of chronic diseases including coordination of care; Office-based procedures and diagnostic tests; Patient education and self-management support; preventive care; and prescription services. (A)	N/A	N/A	N/A
3.C) Mental Health, Substance Abuse, & Developmental Services[9]	**3.C.0** PCPCH documents its screening strategy for mental health, substance use, and developmental conditions and documents on-site and local referral resources. (A)	N/A	**3.C.2** PCPCH documents a cooperative referral process with specialty mental health, substance abuse, and developmental providers including a mechanism for co-management as needed. (A)	**3.C.3** PCPCH documents co-location of behavioral health services by providers/behaviorists specially trained in assessing and addressing psychosocial aspects of health conditions. (A)

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[9] A PCPCH can earn points for tiers 2 and 3 simultaneously on this measure.

Standard	Must-Pass ✔	Tier 1 5 points each	Tier 2 10 points each	Tier 3 15 points each
3.D) Comprehensive Health Assessment & Intervention	N/A	**3.D.1** PCPCH documents comprehensive health assessment and interventions, when appropriate, for at least three health risk or developmental promotion behaviors[10]. (A)	N/A	N/A
3.E) Preventive Services Reminders	N/A	**3.E.1** PCPCH uses patient information, clinical data, and evidence-based guidelines to generate lists of patients who need reminders and to proactively remind patients/families/caregivers and clinicians of needed services (A).	**3.E.2** The PCPCH tracks the number of unique patients who were sent appropriate reminders. (A)	**3.E.3** More than 20% of all unique patients were sent appropriate reminders (A).

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[10] At least one assessment/intervention must be inclusive of children or adolescents if the PCPCH population includes those age groups.

Core Attribute #4: Continuity "Be our partner over time in caring for us."				
Standard	**Must-Pass** ✔	**Tier 1** **5 points each**	**Tier 2** **10 points each**	**Tier 3** **15 points each**
4.A) Personal Clinician Assigned	**4.A.0** PCPCH assigns active patients a personal clinician and/or team. (A)	N/A	N/A	N/A
4.B) Personal Clinician Continuity	**4.B.0** PCPCH reports the percent of patient visits with assigned clinician and/or team. (D)	N/A	**4.B.2** PCPCH tracks and improves the percent of patient visits with assigned clinician and/or team. (D)	**4.B.3** PCPCH meets a benchmark in the percent of patient visits with assigned clinician and/or team. (D)
4.C) Organization of Clinical Information	**4.C.0** PCPCH maintains a health record for each patient that contains at least the following elements: problem list, medication list, allergies, basic demographic information, preferred language, BMI/BMI percentile/growth chart as appropriate, and immunization record; and updates this record as needed at each visit. (A)	N/A	N/A	N/A

Standard	Must-Pass ✔	Tier 1 5 points each	Tier 2 10 points each	Tier 3 15 points each
4.D) Clinical Information Exchange	N/A	N/A	N/A	**4.D.3** PCPCH shares clinical information electronically in real time with other providers and care entities (electronic health information exchange). (A)
4.E) Planning for Continuity	N/A	**4.E.1** PCPCH demonstrates a mechanism to reassign administrative requests, prescription refills, and clinical questions when a provider is not available. (A)	N/A	N/A
4.F) Care Setting Transitions	N/A	**4.F.1** PCPCH has a written agreement with its usual hospital providers to ensure that the PCPCH receives admitting and discharge information in a timely fashion, or the PCPCH directly provides routine hospital/urgent care. (A)	N/A	N/A
4.G) Medication Reconciliation	N/A	**4.G.1** Upon receipt of a patient from another setting of care or provider of care (transitions of care) the PCPCH performs medication reconciliation (A).	**4.G.2** The PCPCH tracks the percentage of patients whose medication regimen is reconciled (A).	**4.G.3** The PCPCH performs medication reconciliation for more than 50% of transitions of care (A).

Core Attribute #5: Coordination & Integration

"Help us navigate the health care system to get the care we need in a safe and timely way."

	Must-Pass ✓	Tier 1 5 points each	Tier 2 10 points each	Tier 3 15 points each
5.A) Population Data Management	N/A	**5.A.1** PCPCH demonstrates the ability to identify, aggregate, and display up-to-date data regarding its patient population, including the identification of sub-populations. [11](A)	**5.A.2** PCPCH demonstrates the ability to stratify their population according to health risk: such as special health care needs or health behavior. [11](A)	N/A
5.B) Electronic Health Record	N/A	N/A	N/A	**5.B.3** PCPCH has an electronic health record and the PCPCH practitioners must be "meaningful users" of the electronic record, according to Centers for Medicare and Medicaid Services rules. (A)

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[11] This could be achieved through use of a panel management system and/or registry.

Standard	Must-Pass ✔	Tier 1 5 points each	Tier 2 10 points each	Tier 3 15 points each
5.C) Complex Care Coordination[12]	N/A	**5.C.1** PCPCH attests to a process for identifying patients with complex care needs and enrolling them in services for care coordination (A).	**5.C.2** PCPCH demonstrates that members of the health care team acting as care coordinators for patients with complex care needs have received specific training in care coordination functions (A).	**5.C.3** PCPCH develops individualized written care plans for patients and families with complex medical or social concerns. This care plan should include the following goals: self management; preventive and chronic illness care; and an action plan for exacerbations of chronic illness (A).
5.D) Test & Result Tracking	N/A	**5.D.1** PCPCH tracks tests ordered by its clinicians and ensures timely and confidential notification or availability of results to patients and families with interpretation, as well as to ordering clinicians. (A)	N/A	N/A
5.E) Referral & Specialty Care Coordination[13]	N/A	**5.E.1** PCPCH tracks referrals to consulting specialty providers ordered by its clinicians, including referral status and whether consultation results have been communicated to patients and/or caregivers and clinicians. (A)	**5.E.2** PCPCH demonstrates active involvement and coordination of care when its patients receive care in specialized settings (hospital, SNF, long term care facility). (A)	**5.E.3** PCPCH demonstrates cooperation with community service providers, including referrals outside the PCPCH (such as dental, educational, social service, foster care, public health, and pharmacy services. (A)

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[12] A PCPCH can earn points for tiers 1, 2, and 3 simultaneously on this measure.

[13] A PCPCH can earn points for tiers 1, 2, and 3 simultaneously on this measure.

Standard	Must-Pass ✓	Tier 1 5 points each	Tier 2 10 points each	Tier 3 15 points each
5.F) End of Life Planning	**5.F.O** PCPCH demonstrates a process to offer or coordinate hospice and palliative care and counseling for patients and families who may benefit from these services. (A)	**5.F.1** PCPCH has a process to assist patients and families in completing advanced directive forms (such as POLST) and submits these forms to available registries (unless patients opt out). (A)	N/A	N/A

Core Attribute #6: Person- and Family-Centered Care

"Recognize that we are the most important part of the care team - and that we are ultimately responsible for our overall health and wellness."

Standard	Must-Pass ✓	Tier 1 5 points each	Tier 2 10 points each	Tier 3 15 points each
6A) Language / Cultural Interpretation	**6.A.0** PCPCH documents the offer and/or use of either providers who speak a patient and family's language or time of service in-person or telephonic trained interpreters to communicate with patients and families in their language of choice. (A)	N/A	**6.A.2** PCPCH translates written patient materials into all languages spoken by more than 30 households in the PCPCH (A).	N/A
6B) Communication of Rights, Roles, and Responsibilities	N/A	**6.B.1** PCPCH has a written document or other educational materials that outlines PCPCH and patient/family rights, roles, and responsibilities and has a system to ensure that each patient or family receives this information at the onset of the care relationship (A).	N/A	N/A

Standard	Must-Pass ✓	Tier 1 5 points each	Tier 2 10 points each	Tier 3 15 points each
6C) Education & Self-Management Support	N/A	**6.C.1** PCPCH has a process for identifying patient-specific educational resources and providing those resources to patients when appropriate (A).	**6.C.2** More than 10% of all unique patients are provided patient-specific education resources (A).	**6.C.3** More than 10% of all unique patients are provided patient-specific education resources and self-management services (A).
6D) Experience of Care	**6.D.0** PCPCH requests feedback from a sample of its patients and families at least annually on their experience of care (including provider or health team communication, coordination of care, helpfulness of office staff, and overall provider or health team rating). (A)	N/A	**6.D.2** PCPCH surveys a sample of its population- at least annually, on their experience of care- using one of the CAHPS survey tools. The patient survey must at least include questions on provider communication, coordination of care, and practice staff helpfulness. (A)	**6.D.3** PCPCH surveys a sample of its population using one of the CAHPS survey tools and meets benchmarks on the majority of the domains regarding provider communication, coordination of care, and practice staff helpfulness. (D)

APPENDIX: D - MEASURES IN DEVELOPMENT

These measures were not adopted by the PCPCH Standards Committee for the 2013 model, but are identified as areas of future investigation that would be beneficial. They are aspirational, and many were not included because system support does not currently exist.

ACCESS

- PCPCH has a process to assess seasonal variation in demand for access and patient need for non-traditional access.
- PCPCH documents a clinical response to requests for clinical advice (via telephone) within 24 hours on average.
- 65 % of repeat prescriptions are ready in less than 24 hours and 75% in less than 48 hours.
- PCPCH has a process to manage administrative requests such as FMLA or sports physical paperwork.

ACCOUNTABILITY

- PCPCH shares improvement and quality data with patients.
- PCPCH provides information to patients about the relative cost of services.

COMPREHENSIVE WHOLE PERSON CARE

- Identify and recommend for use by practices, a core list of truly transformational prevention services from the entire list of Bright Futures and United States Preventive Services Task Force (USPSTF) grades A and B recommendations.
- PCPCH has a procedure to inform pharmacies when a medicine has been discontinued
- PCPCH has a process for pharmacist review of scripts for appropriate treatment choice and cost saving opportunities

MEASURE: CONTINUITY

- PCPCH has a process to manage the reassignment of PCP.

MEASURE: COORDINATION AND INTEGRATION

- PCPCH proactively engages patients after hospitalizations, ED visits, and changes in status with standardized systems for targeted outreach to patients post hospitalization, which may include phone or home visit
- PCPCH proactively outreaches to 50% of an identified sub-population of at risk patients, when these patients are not meeting their goals.

MEASURE: PATIENT AND FAMILY-CENTERED CARE

- PCPCH has a process by which patients can choose their PCP and care team.
- Emphasize team-based care
- Require the use of registries such as: Evidenced based system for management of chronic disease, i.e. IMPACT for depression or ALL for diabetes.

APPENDIX E: EVIDENCE BASE AND SOURCES OF EVIDENCE

Core Attribute: Access to Care

Surveying Satisfaction regarding Access

While there are various dimensions of access and approaches to measuring access to care (Aday & Anderson, 1974; Donabedian, 1973), the use of patient satisfaction survey tools have become important for evaluating access from patient perspectives. The evidence also suggests that "chronically ill patients who are not satisfied with their care may change healthcare providers or systems, which could disrupt continuity of care and impede management of their conditions" (Stroupe et al., 2005). Practices that are new to surveying patients on satisfaction can find this process intimidating, but standards exist to outline best practices (White, 1999).

Hours of Access

There is growing evidence of a correlation between extended after hours and improved patient and system level outcomes. For example, a 2005 study suggested a 20% decrease in ED utilization rates for a Medicaid MCO (Lowe et al., 2005). Jerant, Bertakis, Fenton, & Franks (2012) also found that extending patient access in the evening and on weekends is correlated to reduced health care expenditures through lower prescription drug use and office visit related testing. Another study that compared access for urgent care at an after-hours clinic in which their physician participated, at a walk-in clinic, and at the emergency department found that patient satisfaction with care was highest among patients who received care from their own family physician or their physician's after-hours clinic (Howard, Goertzen, Hutchison & Kelly-Morris, 2007).

Core Attribute: Accountability

Performance Improvement

Emmanuel & Emmanuel (1996) argued that "notions about accountability are more than descriptions of the current system, they are also normative guides to determine the institutional structures for health care organizations and the type of health care delivery system we should have" (p.229). Among others, accountability helps to improve quality, transparency and the alignment of payment incentives.

Accountability standards are implied in most Medical Home models around the country. Strong evidence supports the effectiveness of quality improvement (Berwick, et al, 2008; Care Oregon, 2008; Bernstein, Chollet & Peikes, 2010; Bitton, Martin & Landon, 2010; McCarthy & Klein, 2010).

Changes to the required number of quality and performance measures PCPCHs are accountable for tracking, improving and reporting is based on evidence of associations between most of the required measures and improved outcomes (Grumbach & Grundy, 2011; Fields, Leshen & Patel, 2010; Reid, 2009). Similar reporting requirements are used by NCQA, The Joint Commission, and the National Quality Forum in their subsequent standards review processes (NCQA, 2011; The Joint Commission, 2011).

Cost and Utilization

Hospital readmission rates have currently been targeted by several national efforts (Kocher & Adashi, 2011). Emergency department visits and inpatient care for ambulatory issues are frequently cited as a source of waste and a target for interventions (Althaus et al., 2011; McWilliams, Tapp, Barker, & Dulin, 2011; Bradley, Gandhi, Neumark, Garland, & Retchin, 2012).

Core Attribute: Comprehensive Whole Person Care

Preventive Services

The compression of morbidity theory (Fries, 1983), helps to explain how well coordinated primary and preventive care improves population health and saves cost comparatively. The theory postulates that while human lifespan cannot be prolonged beyond certain age, the periods of sickness and disability before death can be compressed through healthy lifestyles (prevention) and other aspects of primary care. Empirical evidence corroborating this theory suggest that emphasizing primary care as part of comprehensive and coordinated care results in improved outcomes of care (Magnussen, Ehiri & Jolly, 2004; Starfield, Shi, & Macinko, 2005; Robert Graham Center, 2007; Meyers, & Clancy, 2009). The benefits of prevention often outweigh all probable costs (Maciosek et al., 2006; Woolf, 2008; Goetzel, 2009).

Preventive Service Reminders

A review of NCQA standards and measures, and also Medical Home standards and measures in Minnesota, Oklahoma and Colorado show that each model emphasizes different variations of individualized care plans and reminders as part of their evaluation of preventive care services (OHCA, 2009; NCQA, 2011; MDH, 2012).

Mental Health and Substance Abuse Services

Co-location is one of the many practice models for coordinating quality and effective physical and behavioral health in Primary Care homes. In co-location, specialty behavioral health clinicians, especially mental health, provide care in the same location with primary care clinicians. Effective coordination of physical and behavioral health in primary care settings is necessary because available evidence suggest that half of all mental health disorders begin by age fourteen and most of the patients who need mental health care will receive insufficient and uncoordinated care (National Institute of Mental Health [NIMH], 2008). Also, about 70% of primary care visits stem from psychosocial issues (Robinson & Reiter, 2007). Co-location creates medical cost savings when the cost for receiving mental health care is offset by reductions in the use of costly physical health care services (Strosahl & Sobel, 1996).

Evidence suggests that co-location improves access, care coordination and reduces utilization of ED and other inpatient facilities (Robinson & Reiter, 2007; NIMH, 2008). Specifically, co-location of mental health and Primary Care reduces the difficulty in accessing specialty mental health services, improves collaboration by reducing resistance to referrals, stigmatization of patients, duplication of services and other adverse events (Strosahl, 2005; Collins, Hewson, & Munger, 2010). Significant improvements in outcomes for people in poor health have also been found through co-location of substance abuse treatment and Primary Care (Koyanagi, 2004; Craven & Bland, 2006).

The benefits of co-location were also consistent in North Carolina's 3 year (2006-2009) state-wide implementation and evaluation. The evaluation of their Integrated, Collaborative, Accessible, Respectful, and Evidence (ICARE) pilot program suggested that access to mental health care and wait times between initial referral and a mental health appointments improved by implementing individualized care plans and clear lines of responsibility for follow-up. Specifically, patients in phase 1 of ICARE pilots had a statistically significant 3%-11% decrease in Medicaid-reimbursable outpatient mental health services and ED use per quarterly period relative to patients in practices that did not participate in ICARE (Morrissy, Domino, Wicher, Kilany, & Gaynes, 2009). Some co-location programs that have shown significant improvements in outcomes of care include: Washtenaw Community Health Organization, Michigan and Armstrong Pediatrics, Pennsylvania (Collins, et al, 2010).

There is also evidence of relative success from reverse co-location. Reverse co-location is a model that is similar to co-location and in this model; Primary care providers are an out-stationed part or full time in a psychiatric specialty to monitor patients' physical health (Mauer & Druss, 2007). The Health and Education Services program in Massachusetts lowered ER visits by 42% and increased screening for hypertension and diabetes (Boardman, 2006).

Core Attribute: Continuity of Care

Personal Clinician Continuity

Continuity of care according to the various definitions focuses on the following elements: continuity of information, management, and patient-physician relationships (Saultz & Albedaiwi 2004; Sharma et al., 2009). The evidence on improved outcomes is consistently strong when clinician assignment is focused specifically on the following population groups: older patients because they have greater likelihood of chronic or multiple chronic conditions that require continuous care (Parchman, 2004; Haggerty et al., 2003; Guthrie, Saultz, Freeman, & Haggerty , 2008; Wolinsky, Bentler, Liu, Geweke & Cook, 2010), and on pediatric patient populations to reduce ED use and costs of care (McBurney, Simpson, &Darden, 2004; McCusker, Tousignant, Da Silva, Ciampi & Lévesque, 2012). This approach to clinician assignment also improves referral practices, care coordination and patient satisfaction (O'Malley, 2004; O'Malley, & Cunningham, 2008).

While patients often receive care from multiple providers and clinicians, there is evidence that personal clinician continuity is important to patients and is correlated to improved outcomes. Haggerty, Roberge, Freeman, Beaulieu & Bréton (2004) and Tarrant, Windridge, Boulton, Baker, & Freeman (2003) captured this important dimension of relational continuity in their studies that support the conclusion that "while patients receive care from various clinicians, they not only want to have 1 clinician who knows them but also who applies that knowledge to designing solutions for their health problems".

Clinical Information Exchange (CIE)

Quality information exchange is essential to patient-centered care and improved outcomes of care in terms of accurate diagnosis, patient well-being, quality of care and improved patient survival and quality of life (Epstein & Street, 2007; Street, Makoul, Arora, & Epstein, 2009). Effective CIE also results in the following outcomes of care: decreases in laboratory and radiographic tests, fewer admissions for observation, and lower overall emergency department use (Chaudhry et al., 2006; Amarasingham, Plantinga, Diener-West, Gaskin, & Powe, 2009; Buntin, Burke, Hoagland, & Blumenthal, 2011). However, the level of cost savings depended on the extent to which clinicians altered their work flows because of information available through the exchange from other institutions prior to initiating a treatment plan (Frisse & Holmes, 2007).

CIE is also beneficial when viewed from patient's perspective. Patients develop trust, are more satisfied, and cooperate more when they receive timely, adequate and culturally sensitive information exchange from providers (Schofield, Butow, Thompson, Tattersall, & Beeney , 2003; Davidson, & Mills, 2005).

Active outreach to recently hospitalized patients can help to improve management continuity, care transitions and primary care home outcomes (Gill, Mainous & Diamond , 2003; Knight, Dowden, Worrall, Gadag, & Murphy, 2009; Rittenhouse, Thom, Schmittdiel, 2010).

Core Attribute: Coordination and Integration

Most of the literature converges on care coordination and patient-centeredness as the central tenets for improving primary care delivery in Medical Homes because of the problems associated with delivery system fragmentation (MEdpAC, 2008).

Electronic Health Record

EHR is an important tool for improving care coordination and there is substantial evidence to support the benefits of EHR and other HIT to improving communication, referrals, transitions of care, test tracking and duplication in the broader delivery system (Zhou, et al., 2007; Chen & Yee, 2011; Moreno, Pikes & Krilla, 2010). However, financial barriers continue to affect the interoperability of this technology especially at the primary care level. Also, while most evaluations suggest improved efficiencies (Kim, Chen, Keith, Yee &, Kushel , 2010), Return On Investment(ROI) results have so far been mixed (Menachemi & Brooks, 2006; Grieger, Cohen, & Krusch , 2007).

Care Coordination

Care coordination methods vary across practices which often creates problems during referrals and transitions of care (McDonalds, et al, 2011). The available evidence suggests that training can improve communication and strengthen accountability among care coordination teams as well as improve outcomes of care (Antonelli, McAllister & Popp, 2009; Peikes, Chen, Schore & Brown, 2009; McDonald et al., 2011). There is growing importance of complex care coordination in PCPCHs (Goetzel, 2009; Russel, 2009; Foote, 2009).

Referral and Specialty Care Coordination

Communication is important to referral and care coordination and there is evidence suggesting that while 69% of PCP's report providing notification of patient histories and reasons for consultation to specialists "always" or "most of the time" only 35% of specialists report receiving such notification 'always" or "most of the time" (O'Malley & Reschovsky, 2011; Forrest, 2009). Also, communication problems that affect the roles and relationships between PCP's and specialists create utilization and cost problems such as more care being provided in specialty settings than is necessary (Forrest, 2009). This effect is also seen in the use of

emergency room care (Young, Barhydt, Broderick, Colello, & Hannan, 2010; Carrier, Yee, & Holzwart , 2011). The use of referral agreements and "preferred providers" results in improved care and outcomes (Hammond & Barba, 2011; Yee, 2011).

End of Life Planning

POLST is important for providing a mechanism to communicate seriously ill patients' preferences for end-of-life treatment across treatment settings and also for the implementation of advance care planning. The National Quality Forum argued in support of POLST that "compared with other advance directives programs, POLST more accurately conveys end-of-life preferences and yields higher adherence by medical professionals (p 43)." Even in setting where palliative care is required infrequently, like pediatrics, integration of POLST into the medical home has proven to be useful (Knapp et al., 2012). The current requirements align with CCO metrics.

Core Attribute: Person and Family-Centered Care

While this attribute and its standards and measures use 'person' and 'patient' interchangeably, the distinction is important and is emphasized in the literature. While there are advantages to emphasizing either "person" or patient", there is no consensus on the use of either "person-centered" or "patient-centered" (Starfield, 2011; Ekman, Wolf, Olsson, Taft, & Dudas, 2011).

At the core of patient and family-centered care is the quality of patient and family-centered interactions that help to achieve shared information, shared deliberation, and shared mind (Epstein, Fiscella, Lesser & Stange, 2010; Stewart, 2001). A recent National Cancer Institute monograph outlines six measurable elements of patient-centered care: fostering healing relationships, exchanging information, responding to emotions, managing uncertainty, making decisions, and enabling self-management, this monograph also provides validated measures for each of the above measures (Epstein & Street, 2007).

Interpreter Services

According to data from the Census, the 2005 American Community Survey and from other state level data, about 14% of the state's population speaks different languages other than English. The breakdown of the 14% is as follows: Spanish (60.4%), Vietnamese (4.1%), German (4%), Russian (3.7%), Korean (3.3%) and Chinese (3.1%) ([www.mla.org/map_data_results&SRVY;](www.mla.org/map_data_results&SRVY) [www.oregon.gov\).](www.oregon.gov)

Education, Health Promotion and Self-Management Support

Self-management is a core requirement for patient and family centered care. Patients are empowered through education and information that help them to navigate the delivery system and seek appropriate and timely care (Epstein, et al, 2005). The available evidence is relatively strong and suggests that expanding education and self-management support can be beneficial

towards improving patient care outcomes and patient satisfaction at all levels of the delivery system (Bodenheimer, Wagner, & Grumbach, 2002; Bodenheimer, Lorig, Holman, & Grumbach , 2002). For example, self-management leads to improved health outcomes and reduced hospitalizations for patients with chronic disease (Rosenthal, 2008), self-management also results in better adherence to medications and improved chronic disease control without incurring higher costs (Arora, 2003; Epstein et al.,2005; Duggan, Geller, Cooper & Beach, 2006).

References

American Academy of Pediatrics (AAP) Section on Telephone Care, Committee on Child Health Financing (2006) Payment for Telephone Care. *Pediatrics*, 118(4), 1768-1773.

Aday, L.A & Anderson, R (1974) A framework for the Study of Access to Medical Care, *Health Services Research*

Althaus, F., Paroz, S., Hugli, O., Ghali, W. A., Daeppen, J., Peytremann-Bridevaux, I., & Bodenmann, P. (2011) Effectiveness of interventions targeting frequent users of Emergency Departments: A systematic review. *Annals of Emergency Medicine*, *58*, 41-52. Amarasingham, R., Plantinga, L., Diener-West, M., Gaskin, D.J & Powe, N.R (2009) Clinical information technologies and inpatient outcomes: A multiple hospital study. *Arch Intern Med*.169 (2), 108–14

Angood, P., Dingman, J., Foley, M. E., Ford, D., Martins, B., O'Regan, P, Denham, C. R. (2010). Patient and family involvement in contemporary health care. *Journal of Patient Safety,* 6(1), 38-42.

Antonelli, R.C., McAllister, J.W., & Popp, J. (2009) Making Care Coordination a critical component of the pediatric health system: A multidisciplinary framework, The Commonwealth Fund Publication #1277, New York

Arora N.K (2003) Interacting with cancer patients: the significance of physicians' communication behavior. *Social Sci Med*, 57(5), 79

Asch, S.M., Kerr, E.A., Keesey, J., Adams, J.L., Setodji, C., Malik, S., McGlynn, E.A. (2006) Who is at greatest risk for receiving poor-quality health care? *New Engl J Med*. 354:1147–1156.

Audet, A.M., Doty, J., Shamasdin, J Schoenbaum,S.C. (2005) Measure, learn and Improve: Physicians' involvement in quality improvement. *Health Affairs*, 24(3), 843-52Barker, K. N., Flynn, E. A., Pepper, G. A., Bates, D.W& Mikeal, R.L . (2002) Medication Errors Observed in 36 Health Care Facilities, *Archives of Internal Medicine*, 162(16), 1897-1903

Bernstein, J., Chollet, D.,& Peikes, D (2010) Medical Homes: Will they improve primary care? *Mathematica Policy Research, Inc.* Retrieved from (http: //www.mathematica-mpr.com/health/series.asp) on June 25,2010.

Berwick, D. M., Nolan, T.W., and Whittington, J. (2008) The Triple Aim: Care, Health and Cost. *Health Affairs*, 27(3)

Bitton, A., Martin, C & Landon, B. E. (2010) A Nationwide Survey of Patient Centered Medical Home Demonstration Projects, *Society of General Internal Medicine*, 25(6),584-592

Blumenthal, D, and Tavenner, M. (2010) The "Meaningful Use" Regulation for Electronic Health Records *New Engl J Med*. 363:501-504

Boardman, J. (2006) Health Access and Integration for Adults with Serious and Persistent Mental Illness, Families, *Systems and Health*

Bodenheimer, T.M., Wagner, E.H.M., & Grumbach, K.M. (2002) Improving primary care for patients with chronic illness: the chronic care model, part 2. *The Journal of American Medical Association*, 288:1909-1914

Bodenheimer, T.M., Lorig, K.R., Holman, H.M., & Grumbach, K.M. (2002) Patient self-management of chronic disease in primary care. *The Journal of American Medical Association*, 288: 2469-2475

Bradley, C. J., Gandhi, S. O., Neumark, D., Garland, S., & Retchin, S. M. (2012). Lessons For coverage expansion: A Virginia primary care program for the uninsured reduced utilization and cut costs. *Health Affairs*, *31*(2), 350-359.

Buntin, M.B., Burke, F.M., Hoagland, M.C., & Blumenthal, D. (2011) The benefits of Health Information Technology: A Review of the recent literature shows predominantly positive results *Health Affairs* 30, (3), 464–471

Care Oregon (2008) Pursuing the Triple Aim: Care Oregon, retrieved from (http://www.ihi.org/IHI/Programs/StrategicInitiatives/TripleAim.htm) on March 6, 2011.

Carrier, E., Yee, T., Holzwart, R.A. (2011) Coordination between emergency and primary care physicians, NIHCR Research Brief #3, *National Institute of Health Reform*

Chaudhry B., Wang J., Wu S., Maglione M., Mojica W., & Roth, E. (2006). Systematic review: impact of health information technology on quality, efficiency and costs of medical care, *Ann Intern Med.* 144 (10):7

Chen, A.H & Yee, H. F. (2011) Improving primary care specialty care communication: lessons from San Francisco's safety net: comment on "Referral and consultation communication between primary care and specialist physicians", *Arch of Internal Medicine*,171(1)65-7Collins, C. (2010) Evolving Models of Behavior Health Integration in Primary Care, retrieved from (http: //www.milbank.org/reports/1043EvolvingCare) on June 30, 2012

 Craven, M.A & Bland, R. (2006) Better practices in collaborative mental health care: An analysis of the effective base, *Canadian Journal of Psychiatry, 51*

Davidson R, & Mills M.E. (2005) Cancer patients' satisfaction with communication, information and quality of care in a UK region. *European Journal of Cancer Care (Engl)*: 14:83-90.

Davis, K.,Schoen, C., & Stremikis, K. (2010) Mirror, Mirror on the Wall: How the Performance of the U.S Health Care System Compares Internationally. Retrieved from (http: //www.cwf.org) on May 30,2012

Donabedian, (1973) Aspects of Medical Care Administration, Cambridge: Harvard University Press

Duggan, P.S., Geller, G., Cooper, L.A., & Beach, M.C. (2006) The moral nature of patient-centeredness: is it "just the right thing to do"? Patient Educ Couns. 62(2):271–276.

Ekman, I; Wolf, A; Olsson, L.E; Taft C; & Dudas, K. (2011) Effects of Person-Centered care in patients with chronic heart failure: the PCC-HF study, *European Heart Journal Advance Access*, 308: 1-8

Emmanuel, E. J & Emmanuel, L. (1996) What is Accountability in Health Care? *Annals of Internal Medicine*, 124: 229-239.

Enthovan, C.A., Crosson, F.J & Shortell, S.M. (2007) Redefining Health Care: Medical Homes or Archipelagoes to Navigate? *Health Affairs*, 26(5) 1366-1372

Epstein, R.M., Franks, P., Shields, C.G., Meldrum, S.C., Miller, K.N.,. Campbell, T.L., Fiscella,K. (2005) Patient-centered communication and diagnostic testing, *Annals of Family Medicine*, 3(5), 415–421

Epstein R.M &Street R.L (2007) Patient-centered communication in cancer care: promoting healing and reducing suffering. Bethesda (MD): National Cancer Institute, retrieved from (http://www.outcomes.cancer.gov/areas/pcc/communication/pcc_monograph.pdf) on July 10,2012 .

Epstein, R.M., Fiscella, K., Lesser, C.S., & Stange, K.C (2010) Why The Nation Needs A Policy Push On Patient-Centered Health Care, *Health Affairs*, 29 (8), 1489–1495

Foote, S.M (2009) Next Steps: How Can Medicare Accelerate the Pace of Improving Chronic Care?: A new Strategy is needed that draws on lessons from the quality improvement field, *Health Affairs*, 28(1), 99-102

Forrest, C.B (2009) A typology of specialists clinical roles, *Archives of Internal Medicine,* 169(11), 10662-8

Fields, D.E., Leshen, K.,& Patel. (2010) Driving Quality Gains and Cost Savings Through Adaptation of Medical Homes, *Health Affairs*,29(5),819- 826

Fries, J. F. (1983) The Compression of Morbidity, *Milbank Quarterly*, 61(3), 397-419

Frisse, M.E & Holmes, R. L. (2007) Estimated financial savings associated with health information exchange and ambulatory care referral, *Journal of Biomedical Informatics*,40(6), S 27-32

Gill J.M., Mainous A.G., & Diamond J. J. (2003) Impact of provider continuity on quality of care for persons with diabetes mellitus, *Annals of Family Medicine,* 1(3), 162-170

Goetzel, R.Z. (2009) Do Prevention or Treatment Services Save Money? The Wrong Debate, *Health Affairs*, 28(1), 37-45

Goode, T., Harris, S.H., & Wells, N. (2009) Family-Centered, Culturally and Linguistically Competent Care: Essential Components of the Medical Home, *Pediatric Annals*, 38(9), 505-512

Grieger, D. L., Cohen, S.H., & Krusch, D.A. (2007) A Pilot Study to Document the Return on Investment for Implementing an Ambulatory Electronic Health Record at an Academic Medical Center, *Journal of the American College of Surgeons*, 205(1),89-96

Grumbach, K& Grundy, P. (2011) Outcomes of Implementing Patient-Centered Medical Home Interventions: A Review of the Evidence from Prospective Evaluation Studies in the United States. Retrieved from (http: //wwwpcpcc.net/files/evidence_outcomes_in pcmh.pdf) on February 10,2011 Guthrie, B., Saultz, J.W., Freeman, G.K., & Haggerty, J.L. (2008) Continuity of Care Matters, *BMJ*, 337

Hammond, S & Barba, C (2011) A toolkit for Primary Care-Specialty Care Integration, *Medical Home News*, 3(2)Haggerty, J.L., Reid, R. J., Freeman, G.K., Starfield, B.H., Adair C.E., McKendry R. (2003) Continuity of Care: a Multidisciplinary Review, *BMJ*, 327(7425), 1219-1221

Haggerty, J.L., Roberge, D., Freeman, G.K., Beaulieu, C., & Bréton, M (2004) Validation of a Generic Measure of Continuity of Care: When Patients Encounter Several Clinicians *Ann Fam Med*; 10: 443-451.

Hassol, A. (2004). Patient experiences and attitudes about access to a patient electronic health care record and linked web messaging. Journal of the *American Medical Informatics Association,* 11(6), 505-513

Howard, M., Goertzen, J., Hutchison, B., & Kelly- Morris (2007) Patient Satisfaction with Care for Urgent Health Problems: A Survey of Family Practice Patients, *Annals of Family Medicine*, 5(5), 419–424.

IOM (1978) Primary Care in Medicine: A Definition. In Manpower Policy for Primary Health Care: Report of a Study. Washington DC: National Academy Press, Ch. 2.Jerant, A., Bertakis, K.D., Fenton, J.J., & Franks, P. (2012) Extended Office Hours and Health Care Expenditures: A National Study, *Annals of Family Medicine*, 10(5), 388-98

Kim Y, Chen AH, Keith E, Yee HF Jr, & Kushel, MB. (2010) Practice Profile: A safety-net system gains efficiencies through 'eReferrals' to specialists, *Health Affairs*, 29(5), 969-71

Knapp, C., Baker, K., Cunningham, C., Downing, J., Fowler-Kerry, S., & McNamara, K. (2012) Pediatric palliative care and the medical home, *Journal of Palliative Medicine*, 15(6), 643-645

Knight, J.C., Dowden J.J., Worrall G.J., Gadag, V.G., &. Murphy, M.M (2009) Does higher continuity of family physician care reduce hospitalizations in elderly people with diabetes, *Popul Health Manag*, 12(2), 81-86

Kocher, R. P., & Adashi, E. Y. (2011) Hospital readmissions and the Affordable Care Act: Paying for coordinated quality care. *JAMA*, 306(16), 1794-1795

Koyanagi, C (2004) Get it Together: How to Integrate Physical and Mental Health Care for People with Serious Mental Disorders. Washington, DC, Bazelon Center for Mental Health Law, retrieved from

(http://www.bazelon.org/issues/mentalhealth/publications/gettingittogether) on June 30,2012 .

Kripalani, S., LeFevre, F., & Phillips, C.O. (2007) Deficits in Communication and Information Transfer between hospital based and primary care physicians: Implications for patient safety and continuity of care, *JAMA*, 297(8),831-841

Lane, W.G & Kemper A. R. (2001) American College of Preventive Medicine practice policy statement: screening for elevated blood lead levels in children. *American Journal of Preventive Medicine.* 20:78–82

Larson, L. (2005) Is your hospital culturally competent? (And what exactly does that mean exactly?), *Trustee,* 58(2), 2-3.

Lowe, R. A., Localio, A. R., Schwarz, D. F., Williams, S., Tuton, L. W., Maroney, S., Feldman, H. I. (2005). Association between primary care practice characteristics and emergency department use in a Medicaid managed care organization, *Medical Care*, 43(8), 792-800

Lozoff, B., De Andraca, I., Castillo M,….Pino P(2001) Behavioral and developmental benefits of preventing iron-deficiency anemia in healthy full-term infants. *Pediatric Acad Soc Abstr.*132

Maciosek, M.V., Coffield, A.B., Edwards,M.N., Flottemesch,T.J., Goodman,M.J., Solberg,L.I , (2006) Priorities among Effective Clinical Preventive Services: Results of a systematic review and analysis, *American Journal of Preventive Medicine*, 31(1), 52-61

Magnussen, L., Ehiri, J., & Jolly, P. (2004) Comprehensive Versus Selective Primary Health Care: Lessons for Global Health Policy, *Health Affairs*, 23(3), 167-176

Mallinger, J.B., Griggs, J.J., & Shields, C.G. (2005) Patient-centered care and breast cancer survivors' satisfaction with information, *Patient Educ Couns*.57 (3), 342–349

Mauer, B & Druss, B. (2007) Mind and Body Reunited: Improving Care at the Behavioral and Primary Health Care Interface, Albuquerque, NM, *American College of Mental Health Administration*, retrieved from (http://www.thenationalcouncil.org/galleries/business-practice%20files/4%20Quadrant.pdf) on July 1,2012 .

Marshall, M.N., Shekelle, P.G., Leatherman S, et al. (2000) The public release of performance data: what do we expect to gain? A review of the evidence, *JAMA*, 283:1866 –1874

McBurney, P.G., Simpson, K.N., & Darden, P.N. (2004) Potential Cost Savings of Decreased Emergency Department Visits Through Increased Continuity in a Pediatric Medical Home, *Ambulatory Pediatrics*,4(3), 204-208

McCarthy, D & Klein, S. (2010) The Triple Aim Journey: Improving Population Health and Patients'' Experience of Care, While Reducing Costs, *The Commonwealth Fund*, retrieved from (http://www.commonwealthfund.org) on April 8,2012.

McCusker, J., Tousignant, P., Borgès Da Silva, R., Ciampi A.,& Lévesque J. (2012) Factors predicting patient use of the emergency department: a retrospective cohort study, *Canadian Medical Association Journal*

McDonald, K.M., Schultz, E., Albin, L., Pineda,N.,Lonhart,J., Sundaram,V., Spangler, C.S….Malcolm,E. (2011) Care Coordination Measures Atlas Version 3, *AHRQ Publication* #11-0023, retrieved from (http://www.ahrq.gov) on July 1,2012

McGeary, A S., Kunerth, V., & Carlson, A.M (2011) Addressing Health Care Disparities Using Public Reporting, *American Journal of Medical Quality.*

McWilliams, A., Tapp, H., Barker, J., & Dulin, M. (2011). Cost analysis of the use of emergency departments for primary care services in Charlotte, North Carolina. *North Carolina Medical Journal*, *72* (4), 265-271.

Medicare Payment Advisory Commission (MEdpAC) (2008) Report to Congress: Reforming the Delivery System, June, 2008, retrieved from: (http://www.medpac.gov/documents/june08_EntireReport.pdf) on August 8,2012 .

Menachemi, N & Brooks, R.G. (2006) Reviewing the Benefits and Costs of Electronic Health Records and Associated Patient Safety Technologies, *Journal of Medical Systems* 30, pp. 159–168

Meyers, D.S &Clancy, C.M. (2009) Primary Care: Too important to fail, Editorial in *Annals of Internal Medicine,* 150 (4), 272-274

Minnesota Department of Health (2012) Health Care Homes: Annual Report on Implementation, Report to the Minnesota Legislature

MLA Language Map Data Center, retrieved) from (http://www.mla.org/map_data_results&SRVY_YEAR=2005&geo=state&state_ on July 1,2012

Moreno, L., Pikes, D., & Krilla, A. (2010) Necessary but not sufficient: The HITECH Act and Health Information technology's potential to build Medical Homes. *AHRQ Publication* #10-0080-EF, Rockville, MD: Agency for Healthcare Research and Quality

Morrissy, J.P., Domino, M., Wicher, C., Kilany,M., & Gaynes, B. (2009) Integrating Primary Care and Mental Health Services: Final Evaluation Report on the ICARE Integration Pilot Sites, retrieved from (http://www.thenationalcouncil.org/galleries/businesspractice%Evaluation%20Report%20on%20ICARE.pdf) on July 1,2012 .

Moyer, V.A., & Butler, M. (2004) Gaps in the evidence for well-child care: a challenge to our profession. Pediatrics, 114, 1511–1521

National Committee for Quality Assurance (2010) Physician Practice Connections – Patient-Centered Medical Home, retrieved from (http://www.ncqa.org) on (6/1/2012).

National Committee for Quality Assurance (2011) New NCQA standards takes Patient-Centered Medical Homes to the next level. Retrieved from (http://www.ncqa.org/tabloid/1300/default.aspz) on July 10,2012

National Institute of Mental Health (NIMH) (2008) The Numbers Count: Mental Disorders in America, Bethesda, MD: National Institute of Mental Health, retrieved from (http://www.nimh.nih.gov/health/publications/the-numbers-count-mental-disorders-in-america) on May 30,2012 .

National Quality Forum (2006) A National Framework and Preferred Practices for Palliative and Hospice Care Quality: A Consensus Report. Washington, D.C.: National Quality Forum, 2006. Retrieved from (http://www.qualityforum.org/Publications/2006/) on July 10,2012

National Quality Forum (NQF) (2009) A Comprehensive Framework and Preferred Practices for Measuring and Reporting Cultural Competency: A Consensus Report. Washington, DC, retrieved from. (http://www.qualityforum.org/Publications/2009/04/A_Comprehensive_Framework_and_Preferred_Practices_for_Measuring_and_Reporting_Cultural_Competency.aspx) on July 10, 2012.

Nelson, E & Murray, M (2002) Measuring Access Improvement: Patient Focused Access Measures. Dartmouth-Hitchcock, Trustees of Dartmouth College

Nutting, PA., Miller, W.L., & Crabtree, B.F. (2009) Initial lessons from the first national demonstration project on practice transformation to a patient-centered medical home. *Annals of Family Medicine*. 7(3), 254–260

Odegard, P. S., & Gray, S. L. (2008). Barriers to medication adherence in poorly controlled diabetes mellitus. *The Diabetes Educator*, 34(4), 692-697.

Oklahoma Health Care Authority, (2009) Addendum 1-Medical Homes to SoonerCare Physician Agreement for Choice Primary Care Providers. Retrieved from http://www.okhca.org/pdf/physician_addendum.pdf) on May 30, 2011.

O'Malley, A. S (2004) Current evidence on the impact of continuity of care, *General Pediatrics,* 16(6), 693-699.

O'Malley, A.S & Cunningham, P.J (2008) Patient Experiences with Coordination of Care: The Benefit of Continuity and Primary Care Physician as Referral Source, *J Gen Intern Med* 24(2), 170–7.

O'Malley, A.S & Reschovsky, J.D (2011) Referral and Consultation communication between Primary Care and Specialist Physicians: Finding Common grounds, *Archives of Internal Medicine*, 171 (1), 56-65.

Oregon Department of Revenue (2005), retrieved from (http://www.oregon.gov/dor/stats/docs/english_proficiency.pdf?ga=t) on July 10,2012.

Oregon Health Authority. (2010) Final Report of the Standards and Advisory Committee: Updated by the Pediatric Standards Advisory Committee, retrieved from

(http://www.FinalReport_PCPCH_Updated.pdf (application/pdf Object) on April 10,2012

Oregon Health Fund Board. (2008a) Aim High: Building a Healthy Oregon; Final Report November 2008

Oregon Health Fund Board. (2008b) Delivery Systems Committee Recommendations; Report to the Oregon Health Fund Board. May 2008.

Parchman, M.L (2004). The patient-physician relationship, primary care attributes, and preventive services. *Family Medicine*, 36 (1).

Patient-Centered Primary Care Collaborative. (2012). *The Patient-Centered Medical Home: Integrating Comprehensive Medication Management to Optimize Patient Outcomes Resource Guide* (2nd ed., Rep.). Retrieved from http://www.pcpcc.net/content/medication-management on November 21, 2012.

Peikes, D., Chen, A., Schore, J., & Brown, R. (2009) Effects of Care Coordination on Hospitalization, Quality of Care, and Health Care Expenditures Among Medicare Beneficiaries: 15 Randomized Trials. *JAMA*, 301(6), 603-618.

Pham, H.H., Grossman, J.M., & Cohen, G. (2008) Hospitalists and Care Transitions: The divorce of inpatient and outpatient care, *Health Affairs*, 27(5), 1315-1327.

Pronovost, P., West, B., & Schwarz, M. (2003) Medication reconciliation: a practical tool to reduce the risk of medication errors, *Journal of Critical Care*, 18(4), 201-204.

Rittenhouse, D., Thom, D.H., & Schmittdiel, J.A. (2010) Developing a Policy Relevant Research Agenda for the Patient-Centered Medical Home: A focus on Outcomes, *Journal of General Internal Medicine*, 25(6), 593-600.

Robert Graham Center. (2007) The Patient Centered Medical Home: History, seven core features evidence and transformational change. Retrieved from (http://www.graham-center.org) on October 20, 2012.

Robinson, P & Reiter, J. (2007) Behavioral Consultation and Primary Care: A guide to Integrating Services, New York: Springer.

Rose, K.D & Ross J.S. (2011) Advanced Access Scheduling Outcomes: A Systematic Review, *Archives of Internal Medicine*, 171(17).

Rosenthal T.C. (2008) The medical home: growing evidence to support a new approach to primary care. *J Am Board Fam Med*, 21(5), 427–440.

Russell, L.B (2009) Preventing chronic disease: An important investment, but don't count on cost savings, *Health Affairs* (28(1), 42-45

Saha, S., Beach, M.C., & Cooper, L.A. (2008) Patient centeredness, cultural competence, and healthcare quality, *J Natl Med Assoc*, 100 (11), 1275–85.

Saultz, J.W. (2001) Textbook of Family Medicine. New York, NY: McGraw-Hill Publishing, Ch. 3-7.

Saultz, J.W & Albedaiwi, W. (2004) Interpersonal Continuity of Care and Patient Satisfaction: A Critical Review, *Annals of Family Medicine*, 2(5), 445-451.

Schofield, P.E., Butow, P.N., Thompson, M. H. N., Tattersall, L. J., & Beeney, J.F. (2003) Psychological responses of patients receiving a diagnosis of cancer, *Ann Oncol.*14, 48-56.

Sharma,G., Fletcher,K.E., Zhang,D., Yong-Fang Kuo,Freeman, J.L & Goodwin, J.S. (2009) Continuity of Outpatient and Inpatient Care by Primary Care Physicians for Hospitalized Older Adults. *JAMA*,301(16), 1671-80.

Shi, L & Singh, D.A. (2008) .Delivering Health Care in America: A Systems Approach, Jones and Bartlett Publishers, Boston, 245, 505.

Simon, S.R., Evans, S.J., Benjamen, A …Bates, D.W (Patients' Attitudes Toward Electronic Health Information Exchange: Qualitative Study, *Journal of Medical Internet Research*. Jul-Sep; 11(3), e30.

Solberg, L. (2011) Advanced Access--Fad or Important? Comment on" Advanced Access Scheduling Outcomes". *Archives of Internal Medicine*, 171(17).

Stange, K.C., Nutting, P.A., & Miller, W.L. (2010) Defining and Measuring the Patient-Centered Medical Home, *Journal of General Internal Medicine*, 2596), 601-612.

Starfield, B., Shi, L., & Macinko, J. (2005) Contributions of Primary care to health systems and health. *Milbank Quarterly* 83(3) 457-502.

Starfield B (1979) Measuring the Attainment of Primary Care. Journal of Medical Education; 54, 361-369

Starfield, B. (2011) Is Patient-Centered Care the Same As Person-Focused Care? *Perm J*. Spring, 15(2), 63-69.

Stewart M., Brown J.B., & Donner A. (2000) The impact of patient-centered care on outcomes, *J Family Practice*. 2000; 49(9), 796–804.

Stewart M. (2001) Towards a global definition of patient centered care. *BMJ*, 322(7284), 444–5.

Street R.L, Jr., Makoul G., Arora N.K., & Epstein E.M. (2009) How does communication heal? Pathways linking clinician-patient communication to health outcomes, *Patient Educ Couns* 74(3), 295–301.

Stroupe, K. T., Hynes, D. M., Giobbie-Hurder, A., Oddone, E. Z., Weinberger, M., Reda, D. J., & Henderson, W. G. (2005) Patient satisfaction and use of Veterans Affairs versus non-Veterans Affairs healthcare services by veterans, *Medical Care*, 43 (5), 453-460.

Strosahl, K. (2005) Training Behavioral Health and Primary Care Providers for Integrated Care: A Core Competencies Approach, in Behavioral Integrative Care: Treatments that work in

Primary Care Settings, eds. O'Donohue, W; Byrd, M; Cummings, N, et al, pp.15-52, New York, Brunner-Routledge.

Strosahl, K & Sobel, D (1996) Behavioral Health and the Medical Cost Offset Effect: Current Status, Key Concepts, and Future Applications, *HMO Practice* 10 (4), pp.155-62.

Takach, M (2011) Reinventing Medicaid: State Innovations to qualify and pay for Patient-Centered Medical Homes show promising results. *Health Affairs*, 30(7), 1325-1334.

Tarrant, C., Windridge, K., Boulton, M., Baker, R., & Freeman, G.(2003) How important is personal care in general practice? *BMJ.* 326 (7402), 1310.

Teal, C.R & Street, R.L. (2009) Critical elements of culturally competent communication in the medical encounter: a review and model. *Soc Sci Med*, 68(3), 533–543.

The Commonwealth Fund. (2012) Rising to the Challenge: Results from a Scorecard on local Health System Performance, retrieved from (http://www.cwf.org) on May 31, 2012.

The Joint Commission. (2011) The Joint Commission and NCQA: A comparison of Medical Home Requirements, retrieved from (http://www.jcrinc.com) on June 12,2012.

Wachter, R.M., Flanders, S.A., Fee, C., Pronovost, P.J. (2008) Public reporting of antibiotic timing in patients with pneumonia: lessons from a flawed performance measure. *Ann Intern Med*: 149:29 –32.

White, B. (1999). Measuring patient satisfaction: How to do it and why to bother, *Family Practice Management*, 6 (1), 40-44.

Williams, R.A (2007) Cultural diversity, health care disparities, and cultural competency in American medicine, *J Am Acad Orthop*, 15(1), S52-S58.

Wolinsky, D. F., Bentler, S.E, Liu, L., Geese J.F, & Cook E.A. (2010) Continuity of Care with a Primary Care Physician and Mortality in Older Adults, *Journal of Gerontology*, 65a (4), 412-28.

Woolf, S. H. (2008) The Power of Prevention and What it Requires, *JAMA*, 229(20), 303-23.

Yee, H.F. (2011) The patient-centered medical home neighbor: A subspecialty physicians view, *Annals of Internal Medicine*, 154(1), 63-4.

Young, Y., Barhydt, N.R., Boderick, S., Colello, A.D., & Hannan, E.L. (2010) Factors associated with potentially preventable hospitalizations among nursing home residents in New York State: A survey of directors of nursing, *Journal of American Geriatric Society*, 58(5), 901-7.

Zhou, Y.Y., Garrido, T., Chin, H.L., Wiesenthal, A.M., & Liang, L.L. (2007) Patient access to electronic health record with secure messaging: impact on primary care utilization, *American Journal of Managed Care*, 13(7), 418-24.