Team-Based Care:
Evidence for Cost Savings and
Policy Considerations for Health Insurance Exchanges

First of two-part health policy series by

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Introduction

Patient-centered, team-based care has the potential to improve medical outcomes and reduce growth in costs. Exemplified by the patient-centered medical home (PCMH), team-based care enables physicians and other qualified healthcare providers to work with the patient and a multi-disciplinary team to coordinate and deliver high-quality health care across all settings (i.e., primary care, specialists, hospital, and home). This kind of care coordination is important to Marylanders especially, because more than 75% of our state's overall healthcare spending is associated with treatment for chronic disease.

Our current medical-care delivery system is far from patient-centered; it is provider-centered, fragmented and episodic. This system, if it can be called that, is not producing healthy people and is very costly. While the U.S. system may be good at rescuing some very sick patients, it is not good at keeping people healthy, especially those with chronic illnesses. On average, patients receive recommended preventive and treatment services for medical conditions about half the time.[1] The Organization for Economic Co-operation and Development (OECD) found that the United States spends an average of $7,960 per person on healthcare, two-and-a-half times more than the OECD-member nations' average of $3,233. The average expenditure per person in the United States was a third more than in the second highest cost country, Norway.[2]

The way our current system functions did not happen by mistake; it is the rational response to payment systems and incentives that have evolved over the past five decades.[3] Providers are paid for services performed; care management and coordination and analysis of records of patients' recommended preventive care is not.

Changing to a patient-centered, team-based approach will require both changing how physicians and other health professionals practice medicine and work together, *and* how providers are paid and the incentives are reflected in those payments. Change needs to involve not just primary care providers, but must include the whole "medical neighborhood" of hospitals, specialists, home-care providers, behavioral healthcare providers—all types of providers that promote health.

Information technology is central to implementing team-based care, and to collecting and reporting performance measures. It will help give providers needed information about a patient at the right time, and enable them to review information about all their patients to identify problems proactively. Currently, physicians can rarely identify all the patients in their practice with certain conditions, such as diabetes, to determine if they are receiving recommended condition management and preventive services.[4]

This proactive strategy to practice medicine holds great promise in improving health and slowing associated cost growth. Information technology is critical to being able to do this efficiently. The federal stimulus bill that passed in early 2009 included significant incentives and penalties for physicians and hospitals participating in Medicare and Medicaid to implement electronic health records. Accordingly, the information technology infrastructure to support PCMH is moving into place.

Family of High-Performance Team-Based Care Models

Team-based care describes a family of care coordination models that share common characteristics. These include strengthening the role of the primary care provider, who takes principal responsibility for overall coordination of his/her patients' care across all settings; expanded patient access to care (including increased office hours and guaranteed same or next-day appointments; and engaging patients as partners in key decisions that affect their own health. Although they share these characteristics, team-based care models represent a range of distinct care delivery design features that enable them to achieve demonstrable success in improving patient health outcomes and reducing growth of healthcare spending in a variety of care delivery environments.

The NCQA-certified PCMH, discussed below, is the most widely recognized team care model. Other models include the direct primary care medical home, in which primary care providers offer enhanced primary care and comprehensive care coordination for relatively small patient panels on a per member per month fee basis. Another successful model is the community-based health team (CHT; described in PPACA Section 3502), which is comprised of a multi-disciplinary team of allied health professionals who coordinate patient care and support patient adherence to personal care plans under direction of the patient's primary care provider. Typically, CHTs provide care on a contractual basis to multiple, small primary care practices in a given geographic area, enabling the practices to achieve the coordinated care capabilities of the standard PCMH.

This paper focuses on the PCMH as representative of the potential for large-scale transformation to team-based care delivery in Maryland to affect overall state healthcare spending, cost of care, and medical outcomes for two reasons: the record of support for PCMH transformation in Maryland, and the rich data emerging from our neighboring state of Pennsylvania (where a large-scale PCMH transformation occurred under the state's Chronic Care Initiative 2006-2009).

What is a Patient-Centered Medical Home?

PCMH providers establish standards of care, audit records to identify patients who need care and augment outreach to ensure physicians and health care team deliver recommended care in a coordinated manner. Providers partner with patients to help them set goals and improve self-management.

The American Academy of Family Physicians (AAFP), American Academy of Pediatrics (AAP), American College of Physicians (ACP) and American Osteopathic Association (AOA) issued "Joint Principles of the Patient-Centered Medical Home" in February 2007.[5] These principals are:

"Personal physician - each patient has an ongoing relationship with a personal physician trained to provide first contact, continuous and comprehensive care.

Physician directed medical practice – the personal physician leads a team of individuals at the practice level who collectively take responsibility for the ongoing care of patients.

Whole person orientation – the personal physician is responsible for providing for all the patient's health care needs or taking responsibility for appropriately arranging care with other qualified professionals. This includes care for all stages of life, acute care, chronic care, preventive services and end of life care.

Care is coordinated and/or integrated across all elements of the complex health care system (e.g., subspecialty care, hospitals, home health agencies, nursing homes) and the patient's community (e.g., family, public and private community-based services). Care is facilitated by registries, information technology, health information exchange and other means to assure that patients get the indicated care when and where they need and want it in a culturally and linguistically appropriate manner.

Quality and safety are hallmarks of the medical home:

- Practices advocate for their patients to support the attainment of optimal, patient-centered outcomes that are defined by a care planning process driven by a compassionate, robust partnership between physicians, patients, and the patient's family.
- Evidence-based medicine and clinical decision-support tools guide decision making
- Physicians in the practice accept accountability for continuous quality improvement through voluntary engagement in performance measurement and improvement.
- Patients actively participate in decision-making and feedback is sought to ensure patients' expectations are being met.
- Information technology is utilized appropriately to support optimal patient care, performance measurement, patient education, and enhanced communication

- Practices go through a voluntary recognition process by an appropriate non-governmental entity to demonstrate that they have the capabilities to provide patient centered services consistent with the medical home model.
- Patients and families participate in quality improvement activities at the practice level.

Enhanced access to care is available through systems such as open scheduling, expanded hours and new options for communication between patients, their personal physician, and practice staff.
Payment appropriately recognizes the added value provided to patients who have a patient-centered medical home. The payment structure should be based on the following framework:

- It should reflect the value of physician and non-physician staff patient-centered care management work that falls outside of the face-to-face visit.
- It should pay for services associated with coordination of care both within a given practice and between consultants, ancillary providers, and community resources.
- It should support adoption and use of health information technology for quality improvement;
- It should support provision of enhanced communication access such as secure e-mail and telephone consultation;
- It should recognize the value of physician work associated with remote monitoring of clinical data using technology.
- It should allow for separate fee-for-service payments for face-to-face visits. (Payments for care management services that fall outside of the face-to-face visit, as described above, should not result in a reduction in the payments for face-to-face visits.)
- It should recognize case mix differences in the patient population being treated within the practice.
- It should allow physicians to share in savings from reduced hospitalizations associated with physician-guided care management in the office setting.
- It should allow for additional payments for achieving measurable and continuous quality improvements."

The National Committee for Quality Assurance (NCQA) developed standards and guidelines for practices for these principals. The guidelines were released in 2008 and updated in 2011. NCQA issues three levels of recognition. To receive recognition a practice has to make an application and complete a survey. There are currently more than 3,000 recognized practices in the United States.[6]

While NCQA has contributed significantly to PCMH development by providing national standards and recognition by an independent body, NCQA standards necessarily focus on the primary care practice processes, and do not by themselves articulate a broader vision of health system change that includes specialists and hospital providers. Bringing PCMHs into a broader vision of high-performance care delivery is being pioneered by integrated healthcare plans that have adopted the PCMH model, like Geisinger Health Plan in Pennsylvania and Kaiser Permanente in Maryland. Additionally, PCMH is being integrated into broader system change via the developing concept of "the PCMH neighborhood," a strategy for care coordination among PCMHs, specialist practices, and hospitals in a virtually integrated network. As PCMH providers are increasingly able to coordinate care across all settings, the potential for cost savings and positive health outcomes will also increase.

Primary care practices in many rural and underserved may be very small or have a significant number of solo practitioners that may not have the infrastructure needed to achieve NCQA recognition. Other models of team-based care adapt to these realities.

For example, the Vermont Blueprint for Health, the broadest adoption of this approach to date, is a statewide public-private initiative in which community health teams support advanced primary care practices serving as medical homes. Established in 2006, these teams coordinate individual care coordination, perform health and wellness coaching and behavioral health counseling and connect patients to social and economic support services. These teams are led by a registered nurse and include other nurses, behavioral health counselors and dieticians. Each team has the equivalent of five full-time staff members at an average annual cost of $350,000. The cost of the teams is shared among Vermont's three major commercial insurers, Medicaid and Dr. Dynosaur (Vermont's children's health insurance program). Preliminary analysis shows that hospital admissions and emergency department visits have fallen since Vermont established this program. An analysis of utilization patterns and cost for the first pilot, launched in July 2008, found inpatient use and per person per month costs decreased 21% and 22%, respectively. Based on the performance of CHTs in six initial pilot areas and following the 2010 adoption of the CHT model statewide, a recent study projects statewide healthcare savings of 28.7% over the next five years. [7]

Can the PCMH Produce Cost Savings and Promote Quality Healthcare?

An important question for policy makers and payers is whether PCMH initiatives actually save money. A review of published literature by Kevin Grumbach and Paul Grundy of the Patient-Centered Primary Care Collaborative (PCPCC) found evidence of savings from 14 different PCMH initiatives. The study reviewed three private payer initiatives. In each, hospital days and emergency room visits had decreased substantially. Moreover, returns on investment in PCMH transformation were rapid, with ROIs in many cases exceeding 100% in the first one to two years. [8]

Large-scale PCMH transformation also has been successful in Pennsylvania. The Pennsylvania initiative focused on chronic diseases and began in 2008 led by the governor's Office of Health Care Reform. The Pennsylvania Chronic Care Initiative is a multiplayer initiative to increase the number of recognized PCMH practices across the state and reduce the cost of chronic diseases. Of the approximately 300 practices that applied to participate, the governor's office selected 155. These practices served more than 1 million persons, almost 10% of Pennsylvania's population. Practitioners attended workshops to learn care improvement methods, then implemented changes in their practices and filed monthly status reports. Additional meetings among practices allowed them to problem solve and share ideas with other participants. Practices could also receive on-site visits and quality improvement coaching via monthly written feedback and guidance on changes. Practices collected quality performance data from electronic medical records or electronic patient registries and submit monthly population-based performance reports on selected process and outcomes measures. Practices in some regions received a small stipend to offset the costs of attending in-person sessions. In selected regions, payer-created incentive programs helped support the practice infrastructure needed to succeed.[9]

One of the areas of focus in this initiative was diabetic care management because of its high cost and prevalence. There were steady and persistent trends in improvement in performance measures since the program began. Early evidence showed greater improvement in process measures, such as prescribing statins, while outcome measures, such as Hemoglobin A1C levels, blood pressure and cholesterol levels, also improved. [10] The link between these outcome improvements to decreases in blindness, amputations, kidney failure, and heart disease is well established in medical literature.

How Much Could Maryland Save?

To provide a preliminary conservative estimate of how much healthcare costs could be reduced in Maryland if PCMH were fully implemented statewide, we used the data from the Pennsylvania initiative not previously published and applied that to estimates of the Maryland population. Specifically, we took the percent change in increased glycemic control among those diabetics previously most out of control. We selected the results achieved in the last region in Pennsylvania to implement the initiative because, as the program rolled out, each successive region benefited from the lessons learned by prior regions' programs.

The savings realized in our scenario illustrates how PCMH has the potential to improve the quality of care for a wide range of patients, not just diabetics. *Among this subset of diabetics alone, we estimate that almost $20 million in healthcare costs in Maryland could be saved within three years.* The table below shows our calculations of this estimate. The estimate derived from our methodology is inherently conservative.

Calculation of Conservative Estimate of Maryland Savings from Improved Diabetic Care Under PCMH

		Source
Maryland Population	5,773,552	Census
Percent of Population with Diabetes	9.3%	Behavioral Risk Factor Surveillance System (BRFSS)
Estimated Number of Diabetics in Maryland	536,940	
Percent with Hb A1c >7.0	45.9%	AHRQ *2010 National Healthcare Quality Report* page 65
Estimate of uncontrolled diabetics in Maryland	246,456	
Percent to get to below 9 HbA1c	5.9%	Robert Gabbay Analysis of Pennsylvania PCMH data
Potential number of diabetics achieving improvement	14,541	
Cost savings per person	$1,374	Gilmer et al. Predictors of Health Care Costs in Adults with Diabetes . Diabetes Care 28(1) January 2005: 59-64
Estimated Cost Savings for Maryland	***$ 19,979,171***	

What is Happening in Maryland on PCMH?

Several PCMH initiatives have started in Maryland. The earliest was a Guided Care® PCMH developed at the Bloomberg School of Public Health at Johns Hopkins University (JHU) and is a program that exchanges can license from the school. The program has been extensively evaluated and has published impressive results. [11] Maryland enacted legislation in 2010 creating a multi-payer PCMH program that is in the process of being implemented. CareFirst is implementing a primary care medical home program on a broader basis statewide. Kaiser Permanente also offers its Maryland patients a PCMH care delivery option.

Guided Care Model—JHU

Under JHU's Guided Care program, a Guided Care nurse, based in a primary care office, works with 2-5 physicians and other members of the care team to provide coordinated, patient-centered, cost-effective health care to 50-60 of their chronically ill patients. The Guided Care nurse conducts in-home assessments, facilitates care planning, promotes patient self-management, monitors conditions monthly, coordinates the efforts of all health care professionals, smoothes transitions between sites of care, educates and supports family caregivers, and facilitates access to community resources.[12]

Developers of the JHU program conducted a 32-month randomized control trial of Guided Care in eight community-based primary care practices in the Baltimore-Washington, D.C., region. The primary objective was to evaluate the effects of Guided Care on the quality, efficiency and clinical outcomes of healthcare for chronically ill older patients and their informal caregivers. The trial began in 2006 and was scheduled to end in June 2008, but was extended through June 2009. After 20 months, Guided Care patients experienced, on average, 30% fewer home healthcare episodes, 21% fewer hospital readmissions, 16% fewer skilled nursing facility (SNF) days, and 8% fewer SNF admissions; only the reduction in home healthcare episodes was statistically significant.

Guided Care produced even larger reductions in a subset of patients who received their primary care from one integrated health care delivery system. Guided Care patients in Kaiser Permanente of the Mid-Atlantic States experienced, on average, 52% fewer SNF days, 47% fewer SNF admissions, 49% fewer hospital readmissions, and 17% fewer emergency department visits; the differences for skilled nursing facility days and admissions were statistically significant. [13]

Maryland Multi-Payer PCMH Program

House Bill 929 established the Patient Centered Medical Home Program in Maryland and was passed during the 2010 session. This law requires all insurance carriers with more than $90 million in Maryland premiums to participate. The Maryland Medicaid program is also participating. The Maryland Health Care Commission (MHCC) was tasked with implementing the program. Under this program there is a uniform payment to primary care providers for each patient enrolled based on a combination of Maryland criteria and NCQA PCMH recognition level. There is also the opportunity for incentive payments.

Applications from primary care practices to participate were due October 2010 and the program launched in April of 2011. As of August 2011, 53 practices were participating, representing 339 providers and more than 200,000 patients.[14] The program is similar to the Pennsylvania model, which provides support to practices to implement change and learning collaborative sessions to share ideas. The enabling legislation required that the MHCC retain an independent body to evaluate the program; this report is due to the legislature on or before December 1, 2014.

CareFirst

CareFirst, which is one of the largest insurers in Maryland, has a PCMH initiative in addition to its participation in the state program. This program is voluntary for primary care providers; participating providers can earn three types of reimbursement increases:

1. 12-percentage-point increase added to current fee schedule
2. New fees for developing care plans for select patients with certain chronic or multiple conditions that put them at risk and for monitoring progress against those plans
3. Additional fee schedule increases (up to an 80-point increase) based on providers' engagement with their patients, the quality of care delivered to their entire cohort of patients, and actual aggregate costs of care compared to expected costs. [15]

While national in scope and not Maryland-specific, the Center for Medicare and Medicaid Innovation is accepting applications from public and private payers for a comprehensive primary care initiative.[16] This initiative will test ways to strengthen primary care through a service delivery model and a payment model.

How Can the Exchange Promote PCMH?

Team-based care—particularly the PCMH and variations like the CHT—demonstrate the potential to reduce health care costs while improving care quality. Unless increases in healthcare costs are reduced, the health insurance premiums that will be offered through the Maryland insurance exchange (HIE) will become unaffordable over time even with support of the federal premium tax credit available to eligible insurance purchasers in the exchange.

The activity in Maryland around PCMH models holds promise that broad and timely care delivery transformation could keep Maryland health costs under control. The current multi-payer PCMH program is limited in scope, however, and is in a testing phase. Despite initiative shown by Care First and Kaiser Permanente, Marylanders still have few options to select PCMH coordination and delivery of care. Given the direction Maryland has already charted toward coordinated care delivery, as well as the alignment of some of the major insurance carriers, the Maryland HIE offers an opportunity to hasten the transformation of team-based care delivery by building on the state's multi-payer PCMH program.

The Maryland Exchange could harness the capability of private insurance plans to drive cost-saving, care quality-improving transformation of Maryland health care delivery by structuring "smart" competition between insurance plans participating in the exchange marketplace. A "smart" competitive design of the Exchange would be accomplished by adopting the following policies:

- Assign to the Maryland HIE responsibility to work with participating insurance plans to assure that each one offers its beneficiaries the choice of patient-centered team-based care options, such as, but not limited to, the PCMH, at each metal level (i.e., bronze, silver, gold and platinum plans). Authorize the Exchange Board to require health plans to offer team-based care options, if necessary. To meet special challenges in developing team-based care options in some regions, requirements could be phased-in geographically and over time.

- Provide consumers with access to transparent, accurate, meaningful and easily comparable data on medical outcomes and costs. Such information is essential to enabling consumers to make informed choices among available care options based on comparable quality and cost.

- Develop community health teams as a shared resource among primary care practices serving both public and privately insured populations, particularly in regions with many solo or small primary care practices or proving care to rural or underserved populations.

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