

Physician Payment Reform: A Review and Update of the Models



Commissioned by:
Massachusetts Medical Society

Prepared by:
Amy M. Lischko
Assistant Clinical Professor
Tufts University School of Medicine

Research assistance from:
Anoop Raman and Rosie Lau
MD/MBA, Class of 2011 and 2010
Tufts University School of Medicine

Table of Contents

Executive Summary.....	2
Introduction	4
Methodology.....	5
Standard Reimbursements Models	6
New Models of Physician Payment	11
Physician views.....	33
Appendix.....	34

Executive Summary

This report summarizes the multitude of methodologies that have or are being used for physician reimbursement. The goal of this report is to provide a high-level overview of the types of reimbursement that have been used over the years and to highlight some of the new and innovative payment reform strategies that are currently being developed and tested. This report presents a description of the key features of each of the payment models and an assessment of their strengths and weaknesses.

This report was commissioned by the Massachusetts Medical Society and was conducted using a comprehensive literature review, key informant interviews, interviews and an e-mail survey with practicing Massachusetts physicians. This multi-faceted approach ensured that views from both experts and practicing physicians were included in this overview.

A growing number of health care professionals around the country and in Massachusetts are frustrated by the current health care payment systems that, by and large, do not reward efforts to improve health care quality. Although fee-for-service payment remains the predominant payment system it does not adequately reimburse providers for preventive care, treatment of chronic conditions, and the follow-up to care. A number of new payment models are being developed and tested including pay-for performance, episode of care, shared savings, and advanced medical home models. These newer models hope to promote strategies to improve the value of care. While initially focusing on quality, in order to address continuing increases in costs of care, payers are introducing cost and/or efficiency measures to these programs. However, it was clear from conversations with key informants and providers across the state that there are no easy solutions to reforming the payment system. In fact, most of the newer payment models are based on older models that are being recycled with better data systems and risk adjustment methodologies. A wide variety of demonstrations are being undertaken today and will continue to evolve into the future which will hopefully provide some evidence regarding which elements provide the right provider and patient incentives to improve the quality of health care and reduce (or slow the growth in) the costs of health care.

From the telephone interviews it was gleaned that providers in Massachusetts favor fee-for-service because it pays them for “what they do” but they recognize its inherent limitations. Most understand the need to constrain health care costs moving forward and feel that perhaps some of the newer mixed-payment models that have components of both fee-for-service and capitation provide the most hope. Some of the providers also voiced interest in reforming the medical malpractice system in Massachusetts to help constrain health care costs. All of the providers interviewed have experienced pay-for-performance reimbursement first-hand and many find it confusing that different payers use different metrics and incentives and find the administrative overhead and complexity adding to health care costs. The financial incentives, thus far, have not been high enough to overcome the administrative expenses required to implement such programs in their practices. There was also some concern voiced from physicians that these programs sometimes divert attention from other activities and patient care. Most remain hopeful, however, that some of the newer models will provide better reimbursement for the care they know is needed in order to improve the health of the public.

I. Introduction

The predominant form of payment for physicians in the United States is fee-for-service. With this payment structure, the more services a physician provides, the more he or she is paid. Over the years critics have felt that this payment method has resulted in the over-use of health care services as physicians are rewarded for the provision of more services without specific attention to the costs or quality of that treatment.¹ However, many of the alternatives to this type of reimbursement have also been problematic for a number of reasons. Public and private payers began experimenting with other models of physician reimbursement in the 1990's and continue to feel dissatisfied with the various models that have been developed and tested thus far.

It is not well understood how much of physician clinical decision-making is affected by the type of payment method used. According to a survey of providers by the Center for Studying Health Systems Change, 25 percent of physicians felt a conflict of interest between providing patients with the best care and increasing their personal income.² Health care costs continue to rise, and they rise without apparent improvement in quality and outcomes. Payers continue to struggle to develop new methodologies that provide the right incentives and a better alignment of goals with payment. Beginning with capitation in the 1990's and continuing through to the present with the latest iteration of reform characterized by pay-for-performance plans, this report reviews the past and current landscape. This report provides an overview of each of the models, describes their key features, and summarizes their strengths and weaknesses. This report also identifies several new payment models that hold some promise and that readers may want to monitor moving forward.

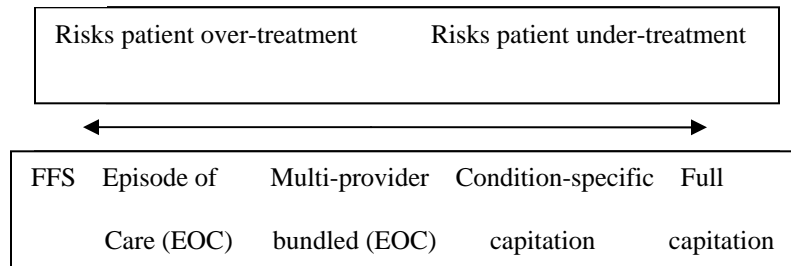
A conceptual framework put forth by Harold Miller in his recent report describing various payment models is based on the risks of over or under treatment by various broad payment

¹ "Consumer Reports Identifies 10 Overused Medical Tests and Treatments." *Chatham Journal*. 16 Nov. 2007. Consumer Reports. 19 Feb. 2008 <http://www.chathamjournal.com/weekly/living/health/cr-overused-medical-tests-treatments-71116.shtml>

² Health Care coverage: Payment Arrangements and Financial Incentives for Physicians <http://www.massmed.org/AM/Template.cfm?Section=Search&template=/CM/HTMLDisplay.cfm&ContentID=4615>

methodologies³. Figure 1 below displays the model. This framework may be a useful point-of-reference as this report describes various payment methodologies and their strengths and weaknesses.

Figure 1:



II. Methodology

A number of methods were used to conduct this comprehensive study of physician payment methodologies. First, a thorough review of the literature was conducted. Next, interviews with key informants including experts from the Commonwealth Fund, the Brookings Institute, Dartmouth Medical School, Bridges-to-Excellence, and Harvard Medical School were conducted to provide background and insight on proposed new models and models being tested in various provider settings. Finally, telephone interviews with a dozen physicians in Massachusetts were conducted to assess their views on payment reform strategies that have been tried and new ones being proposed and a brief e-mail survey was developed to assess the knowledge, experience, and opinions of physicians in Massachusetts regarding various payment strategies. This multi-faceted approach ensured that views from both experts and practicing physicians were included in this overview.

³ Miller, Harold. Creating payment systems to accelerate value-driven healthcare: issues and options for policy reform. The Commonwealth Fund. Sept 24, 2007, Vol 72.

III. Standard Reimbursement Models

In this first section a discussion of the most common payment methodologies used to pay individual physicians for their services – including salaried, equal shares, capitation, and fee-for-service. For each of these payment models a brief description of its key features and a discussion of the pros and cons are presented. Although these models are well-known to most, it seemed important to include them in this report as many of the newer models build upon one of these standard models for reimbursement.

a. Salaried Model

Salaried models, one of the more straightforward compensation models, require preset income levels. These contractual income arrangements provide a defined compensation level and usually a pre-established performance level that is expected from the physician. Defined by the lack of incentive pay, this type of compensation is most often seen in highly-structured and more restrictive environments such as large staff-model HMOs, corporate or large physician-owned practices, and in academic medical centers where research and education are integral to the mission of the organization.

The primary feature of the salaried model is the aspect of predetermined income which offers a sense of security and a guaranteed paycheck to the physician. However, physicians are not encouraged to manage costs in this arrangement, and are also not directly responsible for any risk sharing. Any foreseeable risk for the organization is most likely removed from the physician's salary before the salary is computed.

Pros and cons

Having signed a contract, the physician is expected to follow the rules and procedural protocols of the employer. Typically, processes for various tasks such as referrals to specialists have already been established within this system. This is an advantage for some physicians but also may stifle innovation and encourages continuation of the status quo.

One of the major appeals of the base-rate salaried model is its simplicity. There have been different variations to this model that have attempted to address its shortcomings. For example, a discretionary bonus or deferred compensation such as stock options, may be added at the end of the year based on percentage of practice productivity, percentage of physician's net income, or performance measures such as number of patient visits and satisfaction level. These modifications may increase the performance and productivity of physicians, but depending on their objectivity, compensation usually varies greatly. The design may also get increasingly complex with each criterion, making them administratively expensive to manage and monitor.

b. Equal Shares Model

The equal shares model of compensation is based on a simple calculation whereby revenue after expenses is distributed equally among the group's physicians. Commonly employed by small groups or small single specialty groups, the equal allocation of risks among members encourages all physicians to be equally invested in the practice. Typically in this type of model, it is likely that each physician contributed the same amount of capital into the practice, thus the equal sharing of expenses and revenue would seem like a "fair" method of compensation. Pay could also be based on differential capital contribution.

Pros and Cons

Similar to the salaried method, one of its strengths is its ease of use. This model also discourages overutilization of resources by any of the physicians, as any extra expenses will be taken out of the aggregated revenue. The equal shares model works best when all physician members have the same skill and productivity levels and are equally motivated to contribute to the practice. Unfortunately, because there inevitably are different experience and skill levels, the equal shares model can create conflicts in compensation. Physicians with higher levels of productivity may feel dissatisfied with this shared arrangement. Even though ownership incentives are high, the equal shares method does not encourage efficiency or high productivity, especially if there are low producers in the group.

c. Capitation Model

Capitation was first made popular during the HMO era of late 1980s and early 1990s. This model features prepayments to physicians or physician groups allocated for all or some set of pre-defined services for a defined number of enrollees. As a method of controlling rising health care costs, capitation places the physician (or physician group) as the budgeter who makes decisions regarding the allocation of services and related costs. The payment is usually defined on a per-member-per-month basis or some related formula. Capitation is still present in certain markets, such as in California and Minnesota but exists only in pockets in Massachusetts. This model gained a bad reputation during the managed care backlash of the 1990's. Enrollees complained of the lack of access for services and expressed dissatisfaction with the arrangement of managed care. Critics believe that under this system there is an incentive for under-utilization of health care services, as physicians are financially "penalized" for services they provide to patients.⁴ In addition, because typical per-member per-month payments were not risk-adjusted, physicians experienced greater financial risk for treating sicker patients when receiving capitation payments.⁵

Pros and Cons

Capitation allows health insurers and other payers to forecast health care costs based on prepayments to physicians. Physicians are directly held accountable for the utilization and costs of services used by patients for whom they are receiving a capitation payment. This model rewards physician groups and individual physicians who deliver cost-efficient care. However, one of the criticisms of this payment method is that there is typically no consideration for the extra resources required to treat certain patient groups or catastrophic diagnoses. Thus, critics fear it discourages providers from accepting sicker patients. When certain patients require more services, due to the unpredictability of patient health, the physician has to decide how to adjust the remaining patient load

⁴ Zhan, Chunliu. "The Effects of HMO Penetration on Preventable Hospitalizations." Pubmed Central. Apr. 2004. Health Services Research. 19 Feb. 2008 <<http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1361011>>.

⁵ Rice, Nigel, and Peter Smith. "Approaches to Capitation and Risk Adjustment in Health Care: an International Survey." Ideas. Oct. 1999. Centre for Health Economics. 19 Feb. 2008 <<http://ideas.repec.org/p/chy/respap/op38.html>>.

to stay within the prepayment. Modifications to the capitation model have included the addition of some performance or productivity incentives. Another modification to pure capitation is to risk-adjust the payments that physicians receive dependent on the health status of the patient or patient group.

In January 2008, Blue Cross and Blue Shield of Massachusetts (BCBSMA) unveiled a new proposal for overhauling the way it would pay doctors and hospitals. BCBSMA believes that paying providers for each patient visit or treatment encourages inefficient, superfluous and fragmented care. Moreover, the company believes that considering the trajectory of costs, fee-for-service payments are simply not sustainable.¹

Given these assumptions, BCBSMA has proposed paying physicians and hospitals a flat sum per patient per year, adjusted for age and sickness, plus a significant bonus if providers improve care. Ideally, this comprehensive capitation payment will cover all patient services, encouraging primary care doctors, specialists and hospitals to work together to provide higher quality, more efficient, well-coordinated care. The challenge of establishing contracts with physician groups that provide the right level of payment and incentives remains but this is a demonstration that deserves attention moving forward and could be a sign of a new trend for provider reimbursement in Massachusetts.

d. Fee-For-Service Model

In the fee-for-service (FFS) model, the payer negotiates a certain charge for each type of service with the provider. Charges are listed on a *fee schedule*, which is usually based on a set of billing codes derived from the physicians' Current Procedural Terminology (CPT), a system of the American Medical Association that assigns a unique 5-digit code to each medical procedure or service performed by physicians.⁶ Physicians then get reimbursed for each procedure that they perform.

⁶ American Medical Association. CPT® (Current Procedural Terminology). <<http://www.ama-assn.org/ama/pub/category/3113.html>> Assessed January 2008

Pros and Cons

Theoretically, physicians are provided with flexibility in terms of pricing their services to ensure a relatively stable and steady stream of revenue. However, for the most part, this “negotiation” is typically driven by the payers and as a result the per-service fees are often lower than what physicians feel it costs to provide the service. A major criticism of fee-for-service models has been the incentive for overutilization. The more services the physician provides, the higher the revenue stream. Providers are not financially penalized for ordering more tests, regardless of whether the tests are necessary to make an accurate diagnosis/prognosis.

Current fee-for-service systems generally do not pay adequately (or at all) for many elements of preventive care. In addition, low payment-levels for basic primary care is believed to have discouraged physicians from entering primary care. Fee-for-service systems may not pay adequately for the time needed by the provider to make an accurate diagnosis and to develop an appropriate care plan and discuss it with their patient, particularly in complex cases.

Despite these shortcomings, fee-for-service payment remains a common method of compensation even in a time of restrictive managed care contracts. Traditional indemnity insurance companies use FFS to compensate physicians, as do many Blue Cross Blue Shield companies, Medicare Parts A and B, many state workers’ compensation programs, and managed care payers (HMOs and PPOs).

IV. New Models of Physician Payment

All of the above-mentioned payment models are fairly simple payment methods and because of their simplicity have certain inherent limitations. None of the models presented thus far attempted to address the issue of how best to reimburse physicians to ensure “value” for each health care dollar. Newer payment systems have been developed in the hopes of arriving at a system that is both fair to physicians and one which provides the best outcomes for patients. Payers are increasingly seeking new ways to align financial incentives with the delivery of high quality care. The newer models attempt to strike a balance among varying forces that have plagued the earlier payment systems. That is, they strive to deter over-treatment and encourage efficiency, deter under-treatment by ensuring some standardization of care while, at the same time maintaining patient-centered care, and finally, utilize the latest health technology and administrative structures and processes without increasing health care costs.

This section describes some of the newer payment models attempting to achieve this balance. For each payment approach, a description of the basic model is provided, examples of some current demonstrations of the model are presented, and potential problems with the model are discussed.

a. Pay-for-Performance Models

The current trend in reimbursement includes some form of pay-for-performance. There are many different models nested within the P4P model all of which have different improvement goals and payment mechanisms. The basic objective of this model involves the provision of financial incentives to meet some predetermined performance goals. The measurements used to assess performance are typically measures of quality, and/or efficiency. Quality measures have sometimes been defined in terms of patient outcomes, but are more commonly defined as measures of process of care. Efficiency measures typically are in the form of utilization of particular services such as radiology or other diagnostic testing, emergency department utilization; overall expenditures, or medical errors. Most pay-for-performance programs rely on well-established or co-authored measures

from national standard-setting organizations such as Ambulatory Quality Alliance (AQA), National Center for Quality Assurance (NCQA), National Quality Forum (NQF), the Joint Commission, the Leapfrog Group and others.

This method of reimbursement is designed to make the provider more conscious of clinical processes and standards, thereby improving the quality and efficiency of healthcare services delivered to the patient⁷. The number of pay-for-performance programs has increased in recent years although this growth has occurred largely in the private sector by commercial health plans. Med-Vantage and the Leapfrog Group estimate that there were 155 pay-for-performance programs in place in 2007 compared with only 39 in 2003. The most widespread of the private sector models falls under the rubric of “Bridges-to-Excellence.” The Centers for Medicare and Medicaid Services (CMS) have also experimented with numerous pay-for-performance demonstrations over the past several years. These include: Physician Group Practice Demonstration (PGP), Medicare Health Care Quality Demonstration, Care Management for High Cost Beneficiaries Demonstration, Medicare Care Management Performance Demonstration, and Medicare Hospital Gainsharing Demonstration. In addition, many states have implemented or plan to implement elements of pay-for-performance models into their Medicaid programs.

Potential Problems

Enthusiasm for the pay-for-performance model stems from the desire to achieve better outcomes for patients. A payer can determine the patient care goals that are important to them or, more importantly, to their patients, and reward physicians who provide care that achieves the identified goals. That is very intriguing to payers as evidenced by the numerous pay-for-performance models being used today. However, these programs are not without their drawbacks.

First, the additional administrative costs involved in documentation of the metrics used by each program are substantial. Much of the cost of implementation is frontloaded while benefits to the

⁷ Walla, K. Physicians Weigh in on Pay For Performance: The Minnesota Medical Association Ranks State Pay-for-Performance Programs. < [http://www.law.uh.edu/healthlaw/perspectives/2007/\(KW\)%20p4p.pdf](http://www.law.uh.edu/healthlaw/perspectives/2007/(KW)%20p4p.pdf)> Accessed 2007.

provider may not accrue until years later. This is especially a problem for smaller practices or hospitals, where the risks from participating in the program and the added burden are not necessarily counteracted by the relatively small incentives provided by the payer.

Second, performance incentives, while attractive, are typically small and are not as meaningful as originally planned. For instance, the federal government's pay-for-performance plans typically offer a bonus to boost reimbursement by 1.5 percent however many feel the right target amount to provide an adequate incentive is more on the order of 10 percent.

Third, because these programs are still relatively new, payers are experimenting with many different performance standards and metrics and it becomes difficult for providers to manage the competing programs put forth by various payers. If a provider has a broad payer-mix, it becomes confusing and somewhat counter-productive to have multiple programs with varying requirements in operation at one time. A recent report conducted by PricewaterhouseCoopers assessed 10 different pay-for-performance programs and found that, together, they used almost 60 different physician performance indicators, no single indicator was used by all 10 programs and no two programs rewarded providers in the same way.

Fourth, physicians feel some of the guidelines used in pay for performance programs feel too much like "cook-book" medicine and in fact, there are often very good reasons why a patient is not provided with a particular medicine or test and that a physician should not be penalized for that action. It is often difficult to integrate the idea of patient-centered care, also a hallmark of good quality care per the Institute of Medicine, with many of the practice guidelines being employed by these programs

Finally, early results from these programs show some promise but there is growing concern that these systems are inadequate and potentially counterproductive in some cases. These programs have shown some limited success in improving adherence to certain process guidelines for under-utilized services. However, because measures are only available for a subset of the processes that are important to good outcomes, and because these systems focus almost exclusively on rewarding process

and not outcomes, most experts believe they are not the answer to the current problems of the reimbursement system.

Pay-for-Performance Example: Bridges to Excellence

Responding to IOM's 2001 report entitled *Crossing the Quality Chasm*, Bridges to Excellence, a non-profit coalition-based organization, was established by employers, physicians, researchers, and other industry experts to encourage significant improvements in the quality of care by recognizing and rewarding health care providers who demonstrate that they deliver care that is safe, timely, effective, efficient, equitable, patient-centered care (STEEP). Bridges to Excellence currently has more than 100 employers and health plan members working in 19 regions across the country. It hopes to standardize some of the P4P efforts by having employers and payers use the same metrics in their pay-for-performance programs.

The Bridges-to-Excellence program includes 4 different modules for performance including: physician office, diabetes, cardiac and spine care. It has plans to add a more global care module in 2008. Bridges to Excellence developed its incentive and reward programs around the following guiding principles:

- Performance measures must be evidence-based, focus on quality care and be important to providers.
- Meeting the performance measures indicates clear, demonstrable, better performance in effectiveness.
- Actuarial analyses support the expectation of reduced healthcare costs resulting from improved quality of care (better performance).

Pay-for-Performance Example: The Medicare Physician Group Practice

The Medicare Physician Group Practice (PGP) demonstration is Medicare's first physician pay-for-performance (P4P) initiative. The demonstration, started on April 1, 2005, initially planned

to run for 3 years but CMS recently extended the program an additional year. Its innovation lies in the establishment of incentives for quality improvement and cost efficiency at the level of the PGP.⁸ Consisting of 32 quality measures, it covers four disease modules: diabetes mellitus, heart failure, coronary artery disease, and hypertension and preventive care. Except for the fourth module, which is applicable to all patients meeting age and sex criteria, the other three modules are specific for patients with specific disease states.

The 32 quality measures are a subset of those developed by the CMS Quality Measurement and Health Assessment Group for the Doctors Office Quality (DOQ) Project⁹, which are established and validated as part of the DOQ project. The focus on the ambulatory care setting of the DOQ project is comparable to the setting emphasized in the PGP demonstration.

A total of 10 large physician group practices across the nation are participating in this demonstration. The 32 quality measures were divided and phased in each year, with the first year having only diabetes measures, including flu and pneumonia vaccines for that population. The second year included additional measures of heart failure and coronary heart diseases and the corresponding flu and pneumonia vaccines for this new patient group. New measures in the third year include previous performance measures plus hypertension and colorectal and breast cancer screening. For PGP providers to earn performance payments, they must meet at least one of three targets¹⁰:

1. Achieve the higher of 75 percent compliance or Medicare Health Plan Employer Data and Information Set (HEDIS®) mean
2. Achieve the 70th percentile of Medicare HEDIS® measure
3. Demonstrate a 10 percent or greater reduction in the gap between the administrative baseline and 100 percent compliance

⁸ Kautter, J., Pope, G. C., Trisolini, M., and Sherry Grund, Medicare Physician Group Practice Demonstration Design: Quality and Efficiency Pay-for-Performance. *Health Care Financing Review*. Fall 2007, 29 (1)

⁹ Centers for Medicare & Medicaid Services: CMS Physician Focus Quality Initiative: Chronic Disease and Prevention Measures. November 2005. <<http://cms.hhs.gov/PhysicianFocusedQualInits/downloads/PFQIClinicalMeasures200512.pdf>> Accessed 2007

¹⁰ Kautter, J., Pope, G. C., Trisolini, M., and Sherry Grund, Medicare Physician Group Practice Demonstration Design: Quality and Efficiency Pay-for-Performance. *Health Care Financing Review*. Fall 2007, 29 (1)

The first two targets can be defined as a threshold target while the third one is an improvement objective. By having two types of target levels, incentives are available to providers regardless of their starting level. For a low performing group, the aim may be to reach threshold levels, while a high performing group aligns more with the improvement target. All measures are based on the base year expenditure level of each PGP physician group, taking into account the growth in per capita expenditures between the base and performance years in the PGP's comparison population.¹¹

One advantage of the PGP demonstration is that it builds on existing physician-patient relationships and strengthens the ability for physicians to manage and improve the care of their patients. The PGP payment model alters only provider payment and not the way the Medicare patient accesses care.

The PGP model is relatively straightforward which helps physician support for the program across physician groups. Each participating group shares the savings they create in the care of patients assigned to them within Medicare, and the higher their performance, the more savings they retain. The continuation of FFS payment, performance measurement savings using each PGP's starting base costs, and the lack of penalties for underperformance help alleviate some of the financial risk for physicians. Moreover, physicians are eligible to earn separate quality payments based on the 32 different measures if any one of the three targets is met. Another significant note is that this payment model, unlike capitation, provides fewer incentives for physicians to skim on services and avoid the sickest patients.

The PGP demonstration takes advantage of the Medicare FFS program's market power to maintain FFS rates paid to providers. However, the demonstration's focus on ambulatory care for chronic diseases limits its generalizability and application to other populations. Further evaluation is necessary to examine the program's impact on Medicare expenditures, patient utilization of health care services, and whether this model improves physician ability to more efficiently coordinate care.

Pay-for-Performance Example: Electronic Medical Record (EMR) Adoption

In 2006, during his State of the Union Address, President Bush strongly encouraged the move to computerize the nation's medical records as a way of improving the healthcare system and reducing

¹¹ Ibid.

costs and errors. In a survey quoted by The Commonwealth Fund, nearly 18 percent of U.S. physicians had an electronic health record (EHR) system in 2006, while 30 percent have plans to have a system in place by 2011.¹² The survey results suggested that government efforts to urge adoption of health information technology (HIT) have helped to drive growth. HIT consists of a diverse group of technologies that can be used in the medical setting to help manage and transmit medical information to and from any users with a vested interest in that information. One popular example is EHR, also commonly referred to as Electronic Medical Records (EMR).

The Institute of Medicine has listed 8 features of what constitutes an EMR: core functionality of database management of health information and data, results management, order entry and support, decision support, and other functionalities of electronic communication and connectivity, patient support, administrative support, and reporting and population health management.¹³ Due to its potential benefits, many health plans and Medicare have instituted the adoption of EMR as part of P4P programs.

Partners Community HealthCare partnered with Blue Cross Blue Shield of Massachusetts in 2004 to establish a P4P incentive program that rewarded physicians for the implementation of EMRs within their practices. This 5-year contractual agreement ties a significant portion of an individual physician's FFS payment with EMR adoption. It also uses the EMR as a management and recording tool for the purpose of measuring some performance standards, such as a patient's hemoglobin A1c levels. Physicians electing not to participate in the program will lose several thousand dollars per year, although they also do not have to spend any money on EMR installation and implementation – approximately \$25,000.¹⁴ The success of the program can be evaluated based on physician participation---by the end of 2003, 9 percent had adopted EMRs, by 2004, 18 percent, in 2005, 34%, and at the end of 2006, 64 percent. Partners Community HealthCare anticipates 100 percent participation by the end of 2008.¹⁵

¹² Klein, S. In Focus: Searching for a Better Way to Pay Providers. *Quality Matters: Payment Reform*, July/August 2007, The Commonwealth Fund, Vol. 25.

¹³ Institute of Medicine. Key capabilities of an electronic health record system: letter report. Washington, DC: National Academies Press, 2003

¹⁴ Foubister, V. Case Study: Using Payment Incentives to Improve Care Delivery. *Quality Matters: Payment Reform*, July/August 2007, The Commonwealth Fund, Vol. 25.

¹⁵ Ibid.

With better information technology, increased access to medical records has the potential to greatly improve patient care coordination, both for the patient and the health care provider. Electronic records can greatly enhance quality of care by streamlining information presentation, reducing repetitive tests, and organizing medical information in a useful manner. EMR makes it easy to manage disease status of patients by tracking specific measures. Prompts can also be installed into the programs to remind physicians of performance criteria for P4P programs. It provides a useful opportunity for the physician to aggregate his/her own data on a certain patient cohort served, or decision trends within the practice. Importantly, by incorporating EMRs into a P4P program, a financial incentive is created for physicians to utilize EMRs. The current payment system is structured in such a way that the bearers of the costs of EMR implementation, care providers, do not immediately or directly share in the economic benefits. Incentives in a P4P program, however, would provide economic gain as well as the administrative management advantages of using an EMR.

Traditionally, the physician and/or hospital acts as the safeguard and the controller of the flow of information to and from patient medical records. With the establishment of Personal Health Records (PHR), usually an aspect of the EMR accessible to the patient, patients are afforded access to their own medical information. This creates an opportunity for patient engagement in their own health and health care decision-making and creates opportunity for better communication between provider and patients.

EMR's role in medicine is often questioned as simply another technology that modern medicine has developed to superficially manage the complexities of the healthcare system, or as a truly powerful force that can change the delivery of care.¹⁶ The technology provides numerous opportunities for physician and patient participation, helps to manage and analyze patient and provider information, and provide information that support medical decisions. As a stand-alone instrument, however, it does present with obstacles to implementation and usage. Before any system-wide utilization of EMRs, a thorough analysis is needed to decipher an appropriate approach and a suitable application.

¹⁶ Blumenthal D, Glaser JP. Information technology comes to medicine. *New England Journal of Medicine*. 2007 Jun 14;356(24):2527-34.

Pay-For-Performance Summary

Pay-for-performance programs have been somewhat successful in achieving the goals of improving quality. However, the numerous models, metrics and payment mechanisms underway in the market today create confusion for physicians and the heterogeneity of P4P models takes away from their applicability across different cohorts and settings. The basic idea of incentives for meeting certain performance criteria offers the opportunity for not only creativity and innovation, but also for tailoring rewards to each situation. These programs however will likely evolve into a second generation of programs as suggested by Tom Lee regarding a newer pay-for-performance model being tested by Geisinger Health Systems¹⁷.

In this model, physicians are required to consider the tests and options included in the guidelines and document the reasons if they decide not to use them. Thus, a physician need not feel like they are practicing cookbook medicine and the patient receives the care that is right for them. Geisinger has experimented with this new program with elective CABG surgery thus far. The monetary component of the program is not without its risks. For patients who have surgery as part of this program, Geisinger does not charge for related care within 90 days. To calculate the case rate for a CABG, Geisinger calculates its historical costs for related care during the first 90 days following elective CABG surgeries and the cuts this cost in half. This appears to be a model that, like capitation, holds costs down but resolves some of the problems that pure capitation had by being disease or surgery-specific.

b. The Advanced Medical Home: Comprehensive Payment for Comprehensive Care Model

The concept of the Advanced Medical Home (AMH) has been proposed as early as 1967 by the American Academy of Pediatrics' Council on Pediatric Practice. However, only recently has the idea regained intellectual vigor, now espoused by both the American College for Physicians and the Commonwealth Fund. The Advanced Medical Home provides a more holistic approach to primary

¹⁷ Lee TH, Pay for Performance, Version 2.0, NEJM, 2007, 357:531-533.

care. Instead of primary care physicians being seen as “gatekeeper,” their role in the AMH model becomes patient advocate and care coordinator. In particular, practices and physicians that adopt the AMH model will:¹⁸

- Use Evidence Based Medicine and clinical decision support tools to guide decision making at the point of care based on patient-specific factors
- Create an integrated, coherent plan for ongoing medical care in partnership with patients and their families
- Provide enhanced and convenient access to care not only through face-to-face visits but also via telephone, email, and other modes of communication
- Identify and measure key quality indicators to demonstrate continuous improvement in health status indicators for individuals and populations treated
- Adopt and implement the use of health information technology to promote quality of care, to establish a safe environment in which to receive care, to protect the security of health information, and to promote the provision of health information exchange
- Participate in programs that provide feedback and guidance on the overall performance of the practice and its physicians.

Most physicians and public health officials agree that the principles noted above make sense the question of how to implement an AMH model given today’s environment.

In “Comprehensive Payment for Comprehensive Adult Primary Care,” Garoll et al. begin their argument for reform with two uncontroversial claims.¹⁹ First, the number of medical graduates entering the primary care field is plummeting primarily because of compensation. Second, if primary care were delivered properly (with health information technology, preventive services, and coordinated care) the quality of care people receive would increase while simultaneously bringing down overall health care costs. Thus, what Garoll is saying is that (1) proper primary care is under-valued (based on how much PCPs are paid), and (2) if PCPs were paid more, more medical graduates would enter the field and establish Advanced Medical Homes. Therefore, the solution that Garoll et al. propose is simple – pay primary care physicians more, and expect more from them.

¹⁸ Barr, Michael, and Jack Ginsberg. "The Advanced Medical Home: a Patient-Centered, Physician-Guided Model of Health Care a Policy Monograph of the American College of Physicians." Health and Policy Commission of the American College for Physicians. 19 Feb. 2008.

¹⁹ Goroll, Allan, Robert Berenson, and Stephen Schoenbaum. "Fundamental Reform of Payment for Adult Primary Care: Comprehensive Payment for Comprehensive Care." Commonwealth Fund. 15 Mar. 2007. 19 Feb. 2008 <http://www.commonwealthfund.org/publications/publications_show.htm?doc_id=469545>.

Under this payment reform, in order to earn more money, PCPs agree to take on the responsibility of both caring for the patient directly, and coordinating the healthcare others provide. Table 1 provides a list of the elements that could be present in an Advanced Medical Home as an example.

The comprehensive payment that Garoll et al. envision would typically be a global \$500 per patient per year fee (adjusted for the patient's particular risk attributes). For the average physician practice this would generate approximately \$1,000,000 per year (assuming 2,000 patients served per year), which would be divided by the various providers shown in Table 1 below.

This model differs from the straight capitation model discussed earlier in a number of ways. First, there is more money involved. Unlike previous capitation methods, comprehensive payment does not simply bundle resource based relative value scale (RBRVS) compensation – but instead calculates what this model would really cost, thereby adequately compensating providers for their work. Second, it raises expectations for PCPs. It both requires and pays for the modern systems and teams needed to provide quality, integrated primary care. Third, its payments are needs/risk-adjusted so there are no obvious disincentives to treating more complicated patients. Fourth and finally, the model includes performance-based measures that can be audited through electronic-medical records, patient outcomes, and patient satisfaction rates.

Table 1: Example of Possible Comprehensive Payment

Total Practice Size	2000 patients (small to medium sized practice)
Avg Risk Adj. Comprehensive Payment / pt.	\$500.00 / yr
MD Reimbursement	\$250 K
Team and Office Staff:	\$600 K (total)
Nurse Practitioner	\$100 K
Nurse	\$90 K
Nutritionist (.5 FTE)	\$35 K
Social Worker (.5 FTE)	\$35 K
Receptionist	\$60 K
Medical Assistant	\$50 K
Office Expenses	\$50 K
Rent	\$40 K
Insurance	\$50 K
Physician Fringe	\$90 K
Information Technology	\$100 K (total)
Info Tech/Pt Safety/Quality Management/EHR setup	\$35 K
Data Manager	\$65 K
Annual Physician Performance for Meeting Mutually Established Quality	\$50 K
Total cost	\$1,000,000
Total number of patients	2000
Total cost per patient	\$500.00

*Figures represent tentative proposal from Garoll et al.: Comprehensive Payment for Comprehensive Adult Primary Care

Potential Problems

Whenever more money is injected into a system to help solve a problem, the greatest concern is misallocation of the funds. The National Committee for Quality Assurance (NCQA) recently released new standards for patient-centered medical homes. In order to register, practices must pay an application fee (which varies with the number of physicians at the practice site and may be discounted through participation in recognized programs) and apply for recognition every three years. NCQA requires practices to document how they meet specific requirements and randomly audits 5 percent of those that apply to ensure the appropriate team and technologies are operating under the PCP's

supervision. "If done right, this will be very transformational for primary care," says Greg Pawlson, M.D., M.P.H., executive vice president of NCQA.²⁰

Other potential abuses include tinkering with the risk-adjusted rates, or "dumping" patients onto specialists. Again, the potential for these abuses exist within current payment mechanisms however, they would be easier to identify under comprehensive payment reform. Audits of risk-adjusted rates can be done through random audits of electronic medical records. Adjustments to rates could be made retrospectively if this practice were identified.

Advanced Medical Home Example

In order to test the viability of the Advanced Medical Home model plans for several demonstrations are underway. In January of 2008, Group Health Insurance (GHI) and Health Plan of New York (HIP) announced that they would launch the Medical Home High Value Network project – the first of its kind in New York – to provide adult primary care physician practices with the opportunity to become Medical Home Practices.²¹ To assess the effectiveness of the program, participants will be divided into a supported group and a comparison group, each comprised of 25 adult primary care physician practices. The total number of participants in the supported group is expected to include approximately 100 physicians and 20,000 patients.

Similarly, a three-year Medicare Medical Home Demonstration will be launched in eight states in 2009. It will provide physicians who participate in the program with a "care coordination fee" for managing the care of Medicare beneficiaries with multiple chronic conditions. Physicians also will be able to share in any system-wide savings that may result.

²⁰ Foubister, Vida. "Quality Matters: Patient-Centered Medical Homes." Commonwealth Fund. 24 Jan. 2008. 19 Feb. 2008
http://www.commonwealthfund.org/publications/publications_show.htm?doc_id=648325#audio.

²¹ "GHI and HIP Launch Pilot Medical Home Network Project with Support From Commonwealth Fund." Smart Brief. 9 Jan. 2008. PR Newswire. 19 Feb. 2008 <<http://www.smartbrief.com/news/aaaa/industryPR-detail.jsp?id=972E077C-6B24-4FBC-94A1-7881F99CEF29>>.

Bridges-to-Excellence will also launch a medical home pilot and demonstrations by other private insurers are also being planned in Florida, Rhode Island, and Colorado.²²

Advanced Medical Home Summary

It is important to remember that with the Comprehensive Payment for Comprehensive Care reform, there are different financial and clinical incentives than exist in our current framework. Primary care physicians (or specialists who wish to start advanced medical homes to treat certain chronic care patients) take on a new role – they are not just care providers, but also care coordinators. Because they are paid a substantial global fee, they have the freedom (and the resources) to perform additional care-management tasks that are not typically reimbursed in a fee-for-service environment. The utilization of e-mail and telephone calls, group visits, and remote systems-monitoring will provide additional flexibility in the physician's schedule allowing them to provide additional preventive care, or provide for care in a patient's home when necessary.

c. Episodes-of-Care and PROMETHEUS Payment™ Model

The PROMETHEUS Payment system was created to: (1) confront the obstacles to optimal quality which are found in fee for service (FFS) and capitation payment modes (2) address some of the limitations of the P4P models, and (3) be able to be implemented in today's health care regulatory environment. PROMETHEUS payment (Provider Payment Reform for Outcomes Margins Evidence Transparency Hassle-Reduction Excellence Understandability and Sustainability) was created by a design team composed of various stakeholders, meeting once a month for over two years.

23

This program is unique because of its exclusive reliance on Clinical Practice Guidelines (CPGs), which clearly state what science should be brought to bear to treat a patient with specific

²² Foubister, Vida. "Quality Matters: Patient-Centered Medical Homes." Commonwealth Fund. 24 Jan. 2008. 19 Feb. 2008
<http://www.commonwealthfund.org/publications/publications_show.htm?doc_id=648325#audio>.

²³ "PROMETHEUS: Provider Payment for High Quality Care: a White Paper." Prometheus Payment. May 2006. 19 Feb. 2008 <www.allhealth.org/.../PROMETHEUS-ProviderPaymentforHighQualityCare-AWhitePaper-ExecutiveSummary-511.pdf>.

clinical profiles. From the CPGs, an evaluation is made that takes into account all resources needed to provide the care the diagnosis necessitates – including everything from clinician time to lab expenses, from medical equipment to rehabilitation. Based upon that evaluation, an Evidence-informed Case Rate™ (ECR) is calculated, summing all the costs necessary to provide the patient with the necessary resources and services.

The ECRs incorporate empirical evidence as well as consensus-based judgments on how to treat patients with a particular condition. The Evidence-informed Case Rate forms the budget for treating all of the patient's condition. Each clinician (or group of clinicians) then bid on the portion of the ECR that they are willing and able to perform. Moreover, each Evidence-informed Case Rate is severity adjusted, so for example, the ECR budget would be higher for a diabetic who has heart failure than for one who does not.²⁴

This model differs from a typical “episode of care” model because of its shared-risk feature. In this model, risk is shared by both insurers and physicians. Physicians who negotiate with the plan have an incentive to treat the patient for their condition, yet not over utilize resources because they have a fixed amount of revenue to treat the patient's condition. Insurers do not bear all the risk because they have a set budgeted amount for each patient with a particular condition.

To develop the ECRs, the design team asked four specific questions:²⁵

1. What are the actual resources (e.g., equipment, facilities, supplies) used to provide the recommended care?
2. Who is most likely to use those resources?
3. Where might this care happen most often?
4. How long will it take (using surrogates of evaluation and management visits for time)?

²⁴ Reinke, Tom. "Better Ways to Pay Providers." Managed Care Mag. July 2007. 19 Feb. 2008
<<http://www.managedcaremag.com/archives/0707/0707.payreform.html>>.

²⁵ De Brantes, Francois, and Joseph Camillus. "EVIDENCE-INFORMED CASE RATES: a NEW HEALTH CARE PAYMENT MODEL." Commonwealth Fund. Apr. 2007. 19 Feb. 2008
<www.commonwealthfund.org/usr_doc/deBrantes_evidence-informedcaserates_1022.pdf?section=4039>

It is also important to note here that the PROMETHEUS model expects to cover about 50 percent of healthcare related expenses. Simple health care ailments like ear infections and strep throat do not lend themselves to complicated payment mechanisms, and should continue to be reimbursed within the fee-for-service system. There are also rare diseases for which no clinical practice guidelines exist that also will remain in the fee-for-service environment.

In addition to the evidence-case rates, there are two other pieces that are essential to the PROMETHEUS payment method: the Comprehensive Scorecard, and the Performance Contingency Fund. These two pieces, the scorecard and the contingency fund, are inter-related. The contingency fund is a 10 percent withholding from a physician's total payment for a chronic care patient (20 percent for acute care). Half of the contingency is paid out once a provider has proven that he has exhibited good quality. Quality is based upon whether (1) the physician provided the services that correlate with the CPG, and (2) the patient's outcome. Because the patient's outcome often is the result of many physicians' work, the contingency fund rewards better communication among physicians, including referrals to physicians of high quality.

Table 2: Visits Required to Treat Stage III Colorectal Cancer *

<u>Visits Required to Treat Stage III Colorectal Cancer</u>		
Activity	Frequency	Person
Colonoscopy	1	Gastroenterologist and primary care provider counseling on need for colonoscopy
Visit to review biopsy	1	Gastroenterologist
Appointment regarding surgery	1	Surgeon
	3 to 5	
Hospital stay and surgery	days	Surgeon and hospital staff
Review data for stage III disease	1	Medical Oncologist
Visit social worker	1	Social Worker
Visit chemo nurse for teaching	1	Chemotherapy nurse
Decide on drug therapy	1	Medical Oncologist
Lab for pre-chemo CBC, CMP, liver, CEA	1	Lab
Meet with clinical trial staff regarding protocol	1	Trial Staff
Chemotherapy and follow-up visit every two weeks	24	Medical Oncologist
Potential problems: nausea, diarrhea, fever, etc	3	Medical Oncologist
One month post therapy: review drug therapy and survivorship likelihood	1	Medical Oncologist
Follow-up visit every 3 months	4	Medical Oncologist
		Medical Oncologist and/or primary care physician
Disease and case management	ongoing	

Also see Clinical Practice guideline for [see appendix for NCCN practice guidelines].

If the physician meets the quality standards, the physician is then evaluated on the efficiency of the care provided to the patient. It is important that only physicians who meet the quality threshold be considered for the efficiency benefit because Prometheus does not want to equate efficiency with inadequate care. In order to be eligible for the efficiency bonus, physicians demonstrating good quality are compared to one another – based on resource utilization.

The Comprehensive Scorecard enables physicians, patients and plans to monitor three key areas of care: (1) clinical process and outcomes of care, (2) patient experience with care received, and (3) cost-efficiency. The scorecard offers the critical piece to all true payment reform – transparency. The scorecard empowers patients with the provision of data on specific providers regarding certain episodes of care. Physicians can likewise see the scorecards and learn which colleagues are best to refer their patients.

Potential Problems

Many physicians argue that the Clinical Practice Guidelines used to develop the payment mechanism are incomplete at best and applicable to only a few “real” patients. In instances where CPGs do exist, however, there is sufficient evidence to suggest that adhering to these guidelines benefits patient outcomes overall and may also decrease the likelihood of a malpractice suit up to six-fold.²⁶ Moreover, by tying payment to Clinical Practice Guidelines, one expects the quality of the guidelines to improve as more physicians put them to use and more evidence accrues on which best practices work in real clinical settings.

In addition to the applicability of the CPGs, there are concerns with the condition modifiers used to adjust the Evidence-informed Case Rates. PROMETHEUS plans to calibrate these adjustments in their pilot project.

²⁶ "PROMETHEUS: Provider Payment for High Quality Care: a White Paper." Prometheus Payment. May 2006. 19 Feb. 2008 <www.allhealth.org/.../PROMETHEUS-ProviderPaymentforHighQualityCare-AWhitePaper-ExecutiveSummary-511.pdf>.

Finally, integrating PROMETHEUS into physician offices, hospitals and insurance companies will be a difficult undertaking. The developers are attempting to ease the initial implementation of this system by providing access to the software, scorecard, and ECRs which will be created by the non-profit entity, so as to ease the burden for physicians and plans.

PROMETHEUS Summary

The three elements of PROMETHEUS payments are: (1) Evidence-based Case Rate payments, (2) Comprehensive Scorecards, (3) Performance Contingency Fund. The severity-adjusted ECR looks to cure several ills in our current payment system. It provides incentives that guard against both the over and under use of treatment. It more clearly aligns physician interventions with best-practice medicine. And it encourages physicians to be efficient in their care-delivery. The Comprehensive Scorecards and Performance Contingency Fund work together to provide transparency and incentives to provide high-quality, low-cost care. Overall, the PROMETHEUS system appears to be difficult to describe and understand. Yet, as its primary spokesman, Francois de Brantes often quips “If fixing the healthcare system was easy, it would have been done 35 years ago”.

d. The Extended Hospital Staff Model

The Extended Hospital Staff Model, developed by Elliott Fisher, M.D., M.P.H., a Dartmouth Medical School professor, is a theoretical model that places accountability for a patient’s care on a network of local hospitals and physicians. Serious or chronic illnesses require coordinated, longitudinal care that spans over various specialties and settings. The extended hospital medical staff model redefines the practice of medicine as a hospital-associated multi-specialty group practice that is empirically categorized by the physicians' direct or indirect connections and contact with the hospital.

In developing this model, a physician’s primary hospital is defined by one of two methods. First, physicians who bill Medicare for most of the inpatient work they do at a particular hospital are assigned to that hospital. Second, physicians who do not contribute any inpatient work are assigned to the hospital where most of their Medicare patients were admitted during the same time frame. In order to include care for all patients, ambulatory Medicare patients are assigned to the physician who

provided most of the care in an outpatient setting. This physician could be a primary care physician or a specialist. These patients were identified with their physician's primary hospital. For any physician doing inpatient work, it was found that more than 90% was at their primary hospital. For the 38% of physicians who did not do any inpatient work, more than half of their patients' admissions were to the physician's primary hospital.²⁷ Performance measures were analyzed at the level of the extended hospital medical staff. Table 3 above presents data of the extended hospital medical staff aggregated into 5 groups, based on their 2000-2002 treatment of patients with heart attacks, colon cancer and hip fracture. High performing hospitals were defined as being in the lowest quartile on both risk-adjusted one year mortality and risk-adjusted one year costs, while low performing hospitals were defined as being in the bottom quartile for both measures.

As presented in Table 3 below, the quality of ambulatory care is generally higher in the hospitals with lower risk-adjusted mortality. Extended Hospital Medical Staffs with higher performing levels had lower institutional utilization, such as hospital discharges, total Medicare-reimbursed institutional days, and fewer care transitions. They also experienced lower spending per Medicare beneficiary, i.e., 26 percent lower than in the lowest-performing hospital group (\$4,467 versus \$5,625). The higher performing group appears to be more tightly affiliated with their hospitals, with physicians doing the majority of their inpatient work at their primary hospital. Concurrently, their patients received a larger portion of their care from their extended medical staff and are actually seen by a fewer number of physicians.

This analysis suggested that the model could be used for global attribution and payment in certain medical care systems. However, before that is done further work on risk-adjustment may be required to account for differences in cohort health status across various systems. In addition, this theoretical model only accounted for a limited number of quality measures to identify high-performing groups, and any future models developed based on this attribution methodology would entail a more thorough and rigorous assignment of extended medical staffs.

²⁷ Fisher, E. S., Staiger, D. O., Bynum, J. P. W., et al., Creating Accountable Care Organizations: The Extended Hospital Medical Staff, *Health Affairs* Web Exclusive, December 5, 2006 w44-w57

Table 3: Longitudinal Experience of Ambulatory Medicare Beneficiaries Assigned to Extended Hospital Medical Staffs (EHMSs) In 2003, Stratified by Performance on Adjusted Mortality and Price-Standardized Costs for Their Hospitalized Cohorts in 2000–02

	Strata based on 2000–02 performance				
	Highest	High	Middle	Low	Lowest
Number of hospitals/EHMSs	169	735	2,090	937	232
Number of beneficiaries	296,822	916,116	2,530,111	942,236	298,850
Measures of quality and costs					
Quality of ambulatory care ^a					
Mammography, ages 65–69	52.8%	50.5%	48.3%	45.5%	42.6%
Colorectal cancer screening	12.6	12.9	13.9	13.5	13.7
Diabetic eye exams	41.7	41.8	40.7	39.4	39.0
Diabetes, HbA1c	59.5	57.7	55.8	54.7	53.1
Institutional utilization ^b					
Short-stay hospital discharges ^c	337	347	366	389	404
Long-stay hospital discharges ^c	13	17	17	19	14
SNF discharges ^c	70	73	76	82	86
Medicare institutional days ^c	4.05	4.18	4.44	4.81	5.21
Number of care transitions ^c	0.84	0.87	0.92	0.98	1.01
Spending per beneficiary ^c					
Physician services	\$2,247	\$2,381	\$2,641	\$2,731	\$3,012
Acute care hospital	2,221	2,272	2,379	2,514	2,613
Hospital and physician (total)	4,467	4,653	5,020	5,245	5,625
Measures of coherence and coordination					
Physician affiliation with hospital	63.8%	63.2%	61.3%	63.0%	59.3%
Physicians with inpatient work ^d					
Percent of work at primary hospital	84.2	81.4	80.6	77.0	74.6
Physicians with no inpatient work ^d					
Percent of admissions at primary hospital	60.9	57.9	55.7	54.1	51.2
Concentration of care (medical staff)					
Primary hospital	79.7	75.6	72.7	70.2	68.7
Primary and secondary hospital ^e	87.6	84.1	81.6	80.1	77.7
Different physicians seen (average)	4.3	4.4	4.7	4.7	5.1

SOURCE: Fisher, E. S., Staiger, D. O., Bynum, J. P. W., et al., Creating Accountable Care Organizations: The Extended Hospital Medical Staff, Health Affairs Web Exclusive, December 5, 2006 w44–w57

a Percentage of eligible patients receiving tests.

b Spending and utilization measures were adjusted for age, sex, race and comorbidities present during the previous year.

c Hospital and skilled nursing facility (SNF) discharges are per 1,000 beneficiaries. Medicare institutional days and transitions are per beneficiary and are calculated for hospital, SNF, and long-stay facilities.

d Hospital/inpatient work is defined as acting as attending or surgeon or submitting a Part B bill for a hospitalized patient.

e Secondary hospital is the second most frequently hospital used, based on hospital admissions for the cohort of patients assigned to a specific primary hospital.

One readily apparent benefit of the Extended Hospital Medical Staff model is the inclusion of all physicians who contributed care to the patient. By broadening the definition of care to an extended network, a comprehensive care package can be analyzed from the perspective of the patient. By shifting the focus to hospitals and their extended network of medical staffs, decisions and accountability about capacity and utilization are revealed, as seen in the table data compilation above. High expenditure of the health care dollar within the United States can be attributed to the usage of services such as specialist consultations, laboratory tests, imaging services and inpatient use for detrimental illnesses that could have been avoided by preventive care.²⁸ The Extended Hospital Medical Staff model could potentially shed light on resource allocation decisions by hospitals and the medical staff, and influence each extended medical staff group regarding local capacity and utilization decisions.

Another advantage associated with this model is the ability for each group, consisting of a hospital and its related medical staff, to invest in improving quality and lowering costs. Small practicing physician groups or individual practitioners are often faced with limited resources for the improvement of care as defined by performance measurements. By participating in an extended medical staff model, they can now coordinate improvements with their primary hospital and network of physicians. For the hospitals, the development of one particular extended medical staff group will likely translate into concomitant benefits within other extended medical staff network that they participate in. The improvements warranted will not be blindly developed, for each extended medical staff group will be able to at their resource allocation based on capacity, usage and accountability.

Potential Problems

The Extended Hospital Medical Staff model of grouping physicians and hospitals into various networks is slightly reminiscent of the capitation network model, with the key difference between each extended medical staff is defined empirically based on patient and physician hospital contacts. However, due to the backlash experienced after capitation, the current trend is a payment system that rewards individual services, high volume, and the utilization of high technology procedures. This places physicians in competition with hospitals for patients and a decreased tendency for cooperation

²⁸ Wennberg JE, Fisher ES, Skinner JS. Geography and the Debate over Medicare Reform. *Health Affairs*. 2002;21:w96-w114.

and collaboration of care. This model is based upon the reversal of these trends, thus whether its application can actively bring about a change toward coordination of care or it will require that these changes be instilled beforehand remains to be seen.

Medical practice within the U. S. has traditionally been characterized by a high degree of autonomy and individual responsibility; culturally, this model may also face obstacles in adaptation. Many physicians may be resistant to accepting accountability for the comprehensive care of all patients within their local delivery system, for example, after a patient has been admitted to the hospital, accountability should now belong to the hospital and the hospitalist. Legal considerations on sharing payments, incentives, and liability may also present as potential problems upon the adaptation of this model.

Extended Hospital Medical Staff Model Summary

The Extended Hospital Medical Staff model examines the existing health care system in an innovative and creative way. It defines comprehensive care from the patient's perspective, with the hospital and related medical staff centered around his/her primary provider setting. An answer to the disjointed and poorly coordinated care provided as patients move from one setting or provider to another, this model places each network group accountable for the care and utilization provided to its patients. One of the major challenges it faces is the current attitude of medicine toward autonomy and narrow focus on individual physicians, but its application stands to provide insightful information about addressing the fragmentation of care within our health system.

V. Physician Views

Telephone interviews were conducted with a convenient sample of practicing physicians using the e-mail survey as a base for questioning (see Appendix 1). From the telephone interviews it was gleaned that providers in Massachusetts favor fee-for-service because it pays them for “what they do” but they recognize the inherent limitations with this type of payment. Most understand and believe there is a need to constrain health care costs moving forward and feel that perhaps some of the newer “mixed-payment models” that have components of both fee-for-service and capitation provide the most hope. Some of the providers also voiced interest in reforming the medical malpractice system in Massachusetts to help constrain health care costs.

All of the providers interviewed have experienced pay-for-performance reimbursement first-hand and many find it confusing that different payers use different metrics and incentives and find the administrative overhead and complexity adding to health care costs. The financial incentives, thus far, have not been high enough to overcome the administrative expenses required to fully implement such programs in their practices. There was also some concern voiced from physicians that these programs sometimes divert attention from other activities and patient care.

Most remain hopeful, however, that some of the newer models will provide better reimbursement for the care they know is needed in order to improve the health of the public.

Appendix: Survey Instrument

Introduction

This survey is being conducted by the Massachusetts Medical Society to solicit your experience with and opinion of various models for care delivery and physician reimbursement. The information you provide will help the society develop a comprehensive strategy for payment reform. Your identity and your responses will be kept confidential and will be summarized with other respondents.

About you:

1) What year did you begin practicing medicine after completing your undergraduate and graduate medical training? _____

2) Do you provide direct patient care for at least 20 hours a week (include record keeping, patient related office work, exclude teaching, research, and training). If not, you can **STOP** here!

Yes _____

No _____ (Stop here, we are only asking physicians who provide 20 hours or more of patient care a week to respond)

3) In a typical work week how many patient visits did you personally have in each of the following settings? Count as one visit each time you SAW A PATIENT.

_____ In the office or outpatient clinic

_____ In nursing homes or other extended care facilities

_____ On hospital rounds

_____ Other (where) _____

4) About what percentage of your current patient panel has a chronic medical condition? Your best estimate is fine.

_____ %

5) About the main practice in which you work (if more than one place of employment choose the one where you practice the most hours):

Are you:

_____ Full owner

_____ Part owner

_____ Not an owner

Which of the following best describes this main practice?

Is it

_____ A practice owned by one physician (solo practice)

_____ A two physician-owned practice

_____ A group practice of three or more physicians

_____ A group model HMO

_____ A staff model HMO

_____ A medical school or university

_____ A non-governmental hospital

_____ City or state government

_____ A free-standing clinic

_____ Other _____

6) How many physicians, including yourself, are in the practice? Please include all locations of the practice.

7) What is your primary specialty?

8) The next question deals with your perception of competition among physicians. By competition among physicians, I mean pressure to undertake various activities to attract and retain patients. Now, thinking about your practice, how would you describe the competitive situation your practice faces?

_____ Very competitive

_____ Somewhat competitive

_____ Not at all competitive

9) How large an effect does your use of formal written practice guidelines such as those generated by physician organizations, insurance companies, HMOs or government agencies have on your practice of medicine?

_____ Very large

_____ Large

_____ Moderate

_____ Small

_____ Very small

_____ No effect at all

10) I have adequate time to spend with my patients during their office visits

_____ Agree strongly

_____ Agree somewhat

_____ Disagree somewhat

_____ Disagree strongly

11) I have the freedom to make clinical decisions that meet my patients' needs

_____ Agree strongly

_____ Agree somewhat

_____ Disagree somewhat

_____ Disagree strongly

Patient care revenue and reimbursement

13) What percentage of all patient care revenue comes from: (the sum should total 100%)

_____ Medicare (including Medicare managed care)

_____ Medicaid (MassHealth)

_____ Private Insurance

_____ Self pay

_____ Other _____

_____ I do not know enough to make an educated guess

14) Which of the following payment and/or care models have you heard of? (check as many as apply)

_____ Fee for service

_____ Capitation

_____ Pay for Performance (e.g. Bridges to Excellence)

_____ Tiered co-payments based on quality scores and or efficiency

_____ Episode of care payments (e.g. Prometheus)

_____ Advanced Medical Homes

15) Which of the following payment and/or care models have you experienced first-hand? (check as many as apply)

_____ Fee for service

- _____ Capitation
- _____ Pay for Performance (e.g. Bridges to Excellence)
- _____ Tiered co-payments based on quality scores and or efficiency
- _____ Episode of care payments (e.g. Prometheus)
- _____ Advanced Medical Home
- _____ Other _____

16) About what % of your patient care revenue comes from each of the following payment models?

- _____ Fee for service
- _____ Capitation
- _____ Pay for Performance (e.g. Bridges to Excellence)
- _____ Other _____

17) Which form of payment do you prefer?

- _____ Fee for service
- _____ Capitation
- _____ Pay for Performance
- _____ Other _____

18) Please state how much you agree with the following statements about cost containment.

a. Health care costs cannot continue to grow at the present rate.

- _____ Agree strongly
- _____ Agree somewhat
- _____ Disagree somewhat
- _____ Disagree strongly

b. Rationing care at the end of life has been one proposed solution to controlling health care costs. Do you

_____Agree strongly

_____Agree somewhat

_____Disagree somewhat

_____Disagree strongly

c. Implementing strategies to reduce variability among physician practices has been proposed as a solution to reduce costs. Do you

_____Agree strongly

_____Agree somewhat

_____Disagree somewhat

_____Disagree strongly

d. Implementing strategies to reduce defensive medicine and malpractice insurance costs has been proposed as a solution to reduce costs. Do you

_____Agree strongly

_____Agree somewhat

_____Disagree somewhat

_____Disagree strongly

19) In your own words, describe a health care system that encourages the best possible care but also constrains cost. What features would it have?

20) Is there anything else you would like to tell us about physician reimbursement that we have neglected to ask?