EXHIBIT H

Office of the Attorney General: "Examination of Health Care Cost Trends and Cost Drivers" June 22, 2011

Examination of Health Care Cost Trends and Cost Drivers

Pursuant to G.L. c. 118G, § 6½(b)

Report for Annual Public Hearing

June 22, 2011

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Examination of Health Care Cost Trends and Cost Drivers Pursuant to G.L. c. 118G, § 6½(b)

REPORT FOR ANNUAL PUBLIC HEARING UNDER G.L. c. 118G, § 6½

June 22, 2011

EXECUTIVE SUMMARY

The Office of the Attorney General ("AGO") is pleased to submit this report on its examination of health care cost trends and cost drivers in the Massachusetts health care market. In 2008, the Massachusetts Legislature passed *An Act to Promote Cost Containment, Transparency and Efficiency in the Delivery of Quality Health Care*, which authorized the Attorney General to review and analyze the reasons why health care costs continue to increase faster than general inflation. The AGO issued its first report regarding cost trends and cost drivers in the Massachusetts market on March 16, 2010 ("2010 Report").

In the 2010 Report, we examined whether the existing health care market has successfully contained health care costs, and found the answer to be an unequivocal "no." The market players – whether insurers, providers, or the businesses and consumers who pay for health insurance – had not effectively controlled costs, in part, because the prices negotiated between insurers and providers were not designed to encourage or reward provider efficiency. The resulting market dysfunction has threatened the viability of efficient providers, who have lost ground on payment rates while also losing patient volume to higher priced competitors.

This year's report ("2011 Report") advances the analysis of the AGO's 2010 Report. We again examined how the health care market is functioning by reviewing more recent information on market developments.[1] Like last year, we focused on the private, or "commercial," health insurance market, which does not include government-subsidized health care such as Medicare or Medicaid. In particular, we looked at whether efforts to expand reimbursement of provider services through global payments have reduced health care costs or the payment disparities first identified in our 2010 Report. We examined risk contracting and care coordination both from the perspective of six commercial health insurers (also referred to as "health plans"), and from the perspective of sixteen provider groups of varying size, scope of services, geographic location, and payment methodology. We also examined whether total medical spending on patients with comparable health care coverage differs depending on patient income level.

This Executive Summary explains how the AGO approached its examination of health care cost drivers, highlights the AGO's principal findings from its review and analysis, and identifies the implications of those findings for policy efforts aimed at restraining costs while maintaining access to quality health services.

[1] We reviewed the most recent data available for the Massachusetts health care market, which is typically 2009 data. Last year's examination focused on 2008 data.

The Challenges of Addressing Market Dysfunction and Promoting Value-Based Purchasing

We continue to face significant challenges in addressing historic market dysfunction and in shifting how we purchase health care to align payments with "value," measured by those factors the health care market should reward, such as better quality. Our 2010 Report showed that the commercial health care system does not pay for care based on value. That is, wide disparities in prices are not explained by differences in quality, complexity of services, or other characteristics that might justify variations in prices paid to providers.[2] Instead, prices reflect the relative market leverage of health insurers and health providers. In significant measure, this market dysfunction resulted from historic negotiating and contracting practices that were not challenged because the system lacked the transparent, reliable information needed to identify, measure, and correct the dysfunction.

Until our 2010 Report, only insurers were privy to information on differences in prices paid to health care providers and the total medical expenses associated with patient care across their networks. Health care providers had much less information and naturally focused on their own delivery of health care services. Employers and consumers, for the most part, were not given the information and tools necessary to make value-based purchasing decisions. The market lacked transparency in price and quality information, and other reliable, non-anecdotal performance measures.

The 2010 Report had powerful implications for policy discussions about ways to contain health care costs, reform payment methodologies, and control health insurance premiums. Shortly after release of the 2010 Report, the Massachusetts Legislature enacted Chapter 288 of the Acts of 2010, which, among other important provisions, required standardized reporting of

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[2] In the 2010 Report, the AGO found:

A. Prices paid by health insurers to hospitals and physician groups vary significantly within the same geographic area and amongst providers offering similar levels of service.
B. Price variations are not explained by (1) quality of care, (2) the sickness of the population served or complexity of the services provided, (3) the extent to which a provider cares for a large portion of patients on Medicare or Medicaid, or (4) whether a provider is an academic teaching or research facility. Moreover, (5) price variations are not adequately explained by differences in hospital costs of delivering similar services at similar facilities.
C. Price variations are correlated to market leverage as measured by the relative market position of the hospital or provider group compared with other hospitals or provider groups within a geographic region or within a group of academic medical centers.
D. Variation in total medical expenses on a per member per month basis is not correlated to the methodology used to pay for health care, with total medical expenses sometimes higher for risk-sharing providers than for providers paid on a fee-for-service basis.
E. Price increases, not increases in utilization, caused most of the increases in health care costs during the past few years in Massachusetts.
F. Higher priced hospitals are gaining market share at the expense of lower priced hospitals, which are losing volume.
G. The commercial health care marketplace has been distorted by contracting practices that reinforce and perpetuate disparities in pricing.

OFFICE OF ATTORNEY GENERAL MARTHA COAKLEY, EXAMINATION OF HEALTH CARE COST TRENDS AND COST DRIVERS PURSUANT TO G.L. C. 118G, § 6 ½(B): REPORT FOR ANNUAL PUBLIC HEARING (Mar. 16, 2010), *available at* http://www.mass.gov/Cago/docs/healthcare/final_report_w_cover_appendices_glossary.pdf [hereinafter AGO 2010 REPORT].

provider total medical expenses, relative prices, quality performance, and hospital costs. In addition, Chapter 288 included provisions encouraging the development of tiered and limited network products and prohibiting unfair contracting practices.

We have only just begun to meet the challenge of addressing market dysfunction and promoting value-based purchasing and patient care coordination. Through this current report, the AGO has continued its efforts to identify strategies to promote value-based health care that rewards efficiency and effectiveness.

Our goal for these cost trend examinations is not to suggest who is right or wrong, but rather to shine a light on how our current market functions in order to inform policy discussions on care coordination, payment reform, and insurance product design. Because of the scope of this examination and because final data for 2010 was not available when this examination was performed, this report does not and could not report on all of the efforts being made to improve our health care system. While we are mindful of recent efforts, including changes that have occurred since the 2010 Report and passage of Chapter 288 in 2010, it is too early to evaluate the results of those efforts. We greatly appreciate the courtesy and cooperation of health insurers and providers who provided information for this examination, and we look forward to continuing our collective efforts.

Summary of Findings

Our examination identified several factors that we believe should be considered when analyzing cost containment strategies. We found:

1. There is wide variation in the payments made by health insurers to providers that is not adequately explained by differences in quality of care.

2. Globally paid providers do not have consistently lower total medical expenses.

3. Total medical spending is on average higher for the care of health plan members with higher incomes.

4. Tiered and limited network products have increased consumer engagement in value-based purchasing decisions.

5. Preferred Provider Organization ("PPO") health plans, unlike Health Maintenance Organization ("HMO") health plans, create significant impediments for providers to coordinate patient care because PPO plans are not designed around primary care providers who have the information and authority necessary to coordinate the provision of health care effectively.

6. Health care provider organizations designed around primary care can coordinate care effectively (1) through a variety of organizational models, (2) provided they have appropriate data and resources, and (3) while global payments may encourage care coordination, they pose significant challenges.

Each of these findings is detailed in the report.

Implications of These Findings for Cost Containment

The market dysfunctions and inequities identified in this report cannot be corrected by any single policy reform or by any single group of stakeholders. Expansion of health care access was successful because of a shared responsibility of providers, health insurers, the business community, and consumers; the same shared responsibility will be required to tackle health care costs and to redesign care in the Commonwealth. To control cost growth, we must shift how we purchase health care to align payments with "value," measured by those factors the health care market should reward, such as better quality.

Innovative insurance products – tiered and limited network products – show promise in promoting value-based purchasing, but the competitive benefits of those products cannot counteract the historic effects of price disparities that continue to threaten the financial viability of many excellent, efficient health care providers. More immediate action is required to shore up the foundation of the health care market by addressing the historic market dysfunction that results in greater amounts being paid to certain providers for similar services, and contributes to greater amounts being spent on the care of higher income residents.

As a result of Chapter 58 of the Acts of 2006, Massachusetts has expanded coverage to 98% of its population through the shared responsibility of individuals and employers. It is essential that businesses and consumers be engaged in efforts to promote a value-based health care market. Providers cannot coordinate care without the alignment of varying interests of consumers, purchasing employers, and health insurers. We should not expect to fix the system by shifting the risk and responsibility for efficient care management from health insurers to providers through Accountable Care Organizations ("ACOs"). A shift of payment methodology by itself is <u>not</u> the panacea to controlling costs. Moreover, the information we reviewed shows that the shift to global payments without other fundamental changes may not only fail to control cost, but may exacerbate market dysfunction and market inequities by establishing widely different per member per month rates based on historic pricing disparities.

The improvement of our health care system requires fundamental changes in how we purchase and pay for health care. Massachusetts is a national leader in health care. We face a unique opportunity and a shared responsibility to build upon the existing strengths in our health care system. The need for system reform and improvement has been recognized by Governor Patrick, legislative leaders, consumer groups, insurers, hospitals, health care providers, employers, and leading business associations. This effort will require the active participation of all these parties.

Moving Forward on Cost Containment

Our examination shows that there is no single or easy solution to the market dysfunction and inequities in our health care system. The wide variation in provider payments and the significant pace of market consolidation demonstrate the need for immediate action to restrict, and reverse, distortion of the competitive market. If we fail to act now to promote value-based competition, we will likely face reduced options to control costs in the future.

Payment reform, such as the global payment methodology recommended by the Special Commission on the Health Care Payment System, should ultimately result in better coordination of care. But our examination shows that a shift to global payments will not meet that promise if we do not address two foundational questions.

First, how can we best improve market function? The health care market, like any competitive market, must be responsive to the purchaser – employers and consumers – who must have an incentive and the information necessary to make more efficient and effective use of health care. We must change how health coverage is sold to maintain pooling of the risk associated with health conditions and accidents, but eliminate the current pooling of costs that result from inefficient use of health care. We must give consumers increased options and incentives to make value-based purchasing decisions through tiered and limited network products that, without penalizing necessary and appropriate use of health care, make consumers more responsible for differences in cost when they elect a more expensive provider.

The competitive benefits of tiered or limited network products, however, are unlikely to counteract, on their own, the historic price disparities that threaten many health care providers. During this time of market transition, we recommend temporary statutory restrictions on how much prices may vary for comparable services. Statutory restrictions should only be used as a stop-gap to the extent necessary to moderate price distortions until the corrective effects of tiered and limited network products can improve market function. We are <u>not</u> recommending a return to rate setting for hospitals and physician groups. Instead, we recommend a competitive market-based approach balanced with limited government intervention to foster effective market function.

Second, how can we improve care coordination? There are significant opportunities for providers and health insurers to improve care coordination. Care coordination can be best achieved when the patient, the provider, and the health insurer agree on how care coordination will function. Product design should reward patients with lower rates when they enroll in plans that allow for care coordination. Efforts to move the system towards payment reform depend upon, and are secondary to, better engaging consumers in health care designed around primary care.

To encourage consumers to elect primary care, we must improve the effectiveness of primary care in the Commonwealth. This includes improving funding for primary care and ensuring primary care providers have the tools necessary to coordinate patient care effectively. We need to develop more robust and timely reporting by health insurers and, through the all payer claims database, develop data relevant to guiding care coordination improvements and

system accountability. Such tools should be designed to support a range of primary care delivery models including small physician and nurse practitioner groups who should not be expected to take on risk. For providers who do take on risk, we should improve oversight and solvency standards to minimize the potential for abrupt failure and closure of practice groups.

We believe that policymakers should focus on these two foundational questions in considering strategies to contain health care costs. Based on our review and analysis, and with the twin goals of improving market function and encouraging care coordination in mind, we recommend the following:

1. Promote tiered and limited network products to increase value-based purchasing decisions.

2. Reduce health care price distortions through temporary statutory restrictions until tiered and limited network products and commercial market transparency can improve market function.

3. Encourage consumers to select a primary care provider who can assist consumers in coordinating care based on each consumer's needs and best interests.

4. Promote coordination of patient care through primary care providers by recognizing the need to improve funding of care coordination, including the infrastructure necessary to coordinate care, and by giving providers timely access to relevant patient data regardless of their size or payment methodology.

5. Consider steps to improve the use of the all payer claims database ("APCD") by: (i) developing reports for providers and the public to guide development of patient care coordination improvements and system accountability, and (ii) increasing the standardization of claim level submissions by reducing differences in how payers report payment level information.

6. Develop appropriate regulations, solvency standards, and oversight for providers who contract to manage the risk of insured and self-insured populations.

The Office of the Attorney General looks forward to collaborating with the Legislature, Patrick Administration, policymakers, insurers, hospitals, all other health care providers, businesses, municipalities, and consumers in promoting a value-based health care market that controls health care cost growth while maintaining quality and access. We will strive to establish facts about the Massachusetts health care market that should be considered as those efforts proceed.

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I. Information Gathered and Reviewed

The AGO issued civil investigative demands ("CIDs") pursuant to G.L. c. 118G, § 6½(b), to six major Massachusetts health insurers as well as to sixteen providers representing a cross-section of health care provider groups, including large and small groups, physician-only groups and hospital-affiliated groups, groups that are reimbursed on a global risk basis and those who are paid fee-for-service (as defined below), and groups with different scopes of service. The information we gathered pursuant to the CIDs includes contract documents, financial and operational strategy documents, documents related to care coordination and care management, as well as detailed cost data discussed in this report.

In addition, we conducted more than three dozen interviews and meetings with providers, insurers, health care experts, consumer advocates, employers, and other key stakeholders. To assist in its review, the AGO engaged consultants with extensive experience in the Massachusetts health care market, including an actuarial consulting firm and experts in the areas of health care quality measurement and evaluation, and insurer-provider contracting.

Before we begin presenting the details of our analysis and findings, we will first explain how we approached key aspects of our examination.

A. How do health insurers pay health care providers?

Price or payment is the contractually negotiated amount (or reimbursement rate) that an insurer agrees to pay a particular hospital or health care provider for health care services provided to its members. This is the "price tag" that a given insurer has agreed it will pay each time one of its members incurs a covered expense.

1. Fee-For-Service (FFS) Payments

Typically, when a health care provider performs a service for a patient (e.g., a physician visit or a laboratory test) the provider bills the patient's health insurer for that service. The bill that the provider submits to the health insurer is referred to as a "claim," and the process of paying providers per claim is often referred to as a "fee-for-service" ("FFS") method of payment. Under a fee-for-service payment arrangement, health insurers pay each claim based on the agreed upon price for each service rendered.

Generally, these prices are negotiated in two different ways. Health insurers and hospitals negotiate prices for inpatient hospital services using a "base case rate" for each patient admitted to a hospital.[3] That base rate is then adjusted by a set of standard "case weights" that reflect the complexity of each particular case admitted and may be further modified if the case becomes atypical or an "outlier case." For hospital outpatient services and physician services, insurers have established standard fee schedules (e.g., insurers set hospital outpatient standard fees for radiology, laboratory work, observation, behavioral health, and other outpatient services, and also set standard fees for physician professional services). Health insurers and hospitals then

[3] One major health insurer pays inpatient hospital services on a negotiated all-inclusive per day basis, rather than an all-inclusive per case basis.

negotiate a specific multiplier to each of these standard fees; for example, a provider with a 1.2 multiplier for radiology services would be paid 120% of the standard fee schedule rates for various radiology services.

2. Global Risk Contracts

As an alternative to a purely fee-for-service payment structure, some health insurers negotiate a budget or "global budget" with provider organizations. A global budget is a targeted maximum amount of money that a health insurer will pay to cover *all* of the care a patient receives for a given period of time (regardless of where the patient obtains that care). As such, the negotiated global budget amount sets a fixed amount of money for a provider organization to spend to provide all of the care needed by the population that they manage. Global budgets, or "global payment" structures, may result in surplus amounts paid to the provider organization if they spend *less* than the maximum budget, or deficit amounts paid by the provider back to the health insurer if they spend *more* than the maximum budget.[4]

For purposes of illustration, imagine that a health insurer and a primary care provider ("PCP") group negotiate a $400 global payment per member for each month their members are signed up with the PCPs in their organization. This negotiated per member per month ("PMPM") budget serves as a *target*; throughout the contract year all of the physicians, hospitals, and other providers that serve the members signed up with their PCPs continue to submit claims for services and are paid on a fee-for-service basis.[5] At the end of the year, the health insurer adds up the cost of all goods and services provided (e.g., physicals, imaging, inpatient admissions, emergency department visits, physical therapy, pharmaceuticals, and any other service) to all of the patients signed up with PCPs in the physician group, and compares that amount to the target budget. This annual reconciliation of the actual cost of goods and services rendered to the negotiated annual budget maximum is called a "settlement." If the total of all the goods and services rendered is $380 PMPM, then the health insurer would pay some or all of the $20 PMPM surplus (the amount that the physician group is *below* the budget target) to the physician group. If instead, the total of all the cost of care is $420 PMPM, then the physician would have a "deficit" and would owe some or all of that $20 PMPM (the amount that the physician group is *above* the target budget) back to the health insurer. We often say that the provider group is therefore "at risk" because in this type of contract they are risking some portion of the fee-for-service payments they receive throughout the year if the cost of care consumed by its patients exceeds the negotiated global budget target maximum.

Many believe that reimbursing providers through global risk contracts will align incentives in a way that saves money. This could happen, for example, in the following ways: (1) doctors may have an incentive to avoid "overprescribing" services in order to increase their

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[4] We limited our examination of non-fee-for-service payment methodologies to global payments, which are the predominant form of non-fee-for-service payment methodology utilized in the Massachusetts commercial health care market. We did not examine other types of payment methodologies that might be considered "risk" arrangements, such as bundled payments. Unless noted otherwise, any reference to "risk" payments or contracts in this report are references to global risk contracts.

[5] In the current Massachusetts marketplace, health insurers only offer risk, or global contracts for HMO patients. In addition, many health insurers only offer global budgets for fully-insured accounts. Therefore, globally paid providers are still receiving fee-for-service payments for their PPO and/or their self-insured members.

revenue, and so the amount of care will decrease; (2) doctors may better coordinate patient care so that the amount of care will decrease (e.g., doctor will share x-ray results instead of ordering the same test multiple times, or there will be fewer emergency room visits or hospital readmissions because of better patient management); or (3) doctors may have an incentive to refer patients to lower cost, high quality providers, resulting in a decrease in the price paid for care.

The structure of global payment contracts is negotiated and varies dramatically from provider group to provider group. Many providers have "corridors" or caps that restrict how much of a surplus they are entitled to or how much of a deficit they must pay. For example, a provider might be entitled to only 50% of a surplus, or might get 100% of the surplus. The surplus or deficit can be capped at a specified PMPM amount, or can be unlimited.[6] In some instances, certain health care services, such as behavioral health and substance abuse, are not covered by the global payment. These exclusions are sometimes referred to as "carve-outs." For example, if Provider A and B had the same payment (say, $400 PMPM) but Provider B had "carved-out" behavioral health services, then Provider B would be paid more, since Provider B's payment would not have to cover behavioral health services while Provider A's payment would have to cover all medical services *including* behavioral health services.

In response to our CIDs, health insurers provided globally paid provider annual settlement reports and contracts, as well as standardized health status scores that reflect differences in the demographics and sickness of the population cared for by each at risk provider group. This information enabled us to compare, adjusted for differences in patient population, the global payment levels negotiated between health insurers and provider organizations.

3. Non-claims Payments

In addition to claims-based payments to providers, health insurers also pay providers "non-claims" payments. These payments can include things such as quality payments, infrastructure fees, and surplus or deficit settlements described above. Like prices for claims payments, the amount of non-claims payments are negotiated between health insurers and providers and vary from provider to provider.

B. How did we measure the amount of money health insurers pay to providers?

While comparing prices for specific services or procedures may be useful to consumers,[7] understanding the prices paid by health insurers to providers for all services, in the aggregate, more accurately reflects the way health insurers and providers negotiate and set rates.

Three major health insurers – Blue Cross Blue Shield of Massachusetts ("BCBS"), Harvard Pilgrim Health Care ("HPHC"), and Tufts Health Plan ("THP") – provided information

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[6] Some providers have no "downside" risk. That is, although they may receive a "surplus" if their PMPM expenses are *less* than a target budget, they do not have to pay a deficit when their PMPM expenses are more than their target budget. Although these providers negotiate a target budget, because they can be paid *more* than that budget, we do not consider these types of providers to be "at risk."

[7] *See* Health Care Quality and Cost Council, MyHealthCareOptions, http://www.mass.gov/myhealthcareoptions.

on the variation in payments they made to physician groups in their network, as compared to the network-wide average. These health insurers calculated a "payment relativity factor" by comparing the total amount of payments made to each physician group to their standard fee schedule.[8] Two of the three health insurers provided "fully-loaded" physician relative payment information, meaning that it includes both claims based payments and non-claims payments (such as supplemental payments and risk settlements). The third health insurer provided only claims-based payment information.[9]

For hospitals, two health insurers calculated an inpatient payment relativity factor by comparing the total amount of payments made to each hospital to the average "case mix" adjusted cost per discharge. Both insurers adjusted their hospital inpatient payments to account for "case mix," or differences in the complexity and intensity of cases handled from hospital to hospital. For outpatient hospital services, both plans compared total payments to hospitals to the standard outpatient fee schedule.

Another major health insurer provided information on the variation in prices paid to each hospital in its network. Unlike the payment information provided by the other two health insurers, price information does not reflect volume, product mix, service mix, or other factors particular to a provider's payment history. Since this approach controls for differentiating factors such as volume, product mix, and service mix, it compares the "pure price" that insurers negotiate with different hospitals for all inpatient and outpatient services.

C. How did we measure the quantity, or amount of care?

It is important to understand not just the *cost* of care, but also the *amount* of care used, which we often refer to as "utilization." "Utilization" is the amount of services that patients use. We obtained information from two health insurers regarding the utilization patterns of health care provider organizations in their networks.[10] Health insurers typically track dozens of utilization metrics at both a summary level and a detail level. "Summary" level data includes information such as how often patients are admitted to hospitals, or how often patients visit their primary care providers. "Detail" level data includes more specific information such as, out of the total admissions to a hospital, how many related to maternity. One health insurer provided utilization information for almost all providers in its network. Another health insurer provided utilization information for a subset of providers who are paid on a global, or risk basis, or who have a contract provision that provides for payments based on achievement of certain utilization scores. This information enabled us to examine utilization differences between providers.

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[8] Physician payment relativities reflect differences in the volume and product mix of each physician group, but because the same multiplier typically applies to all types of physicians in a group, the relativities are neutral to service mix.

[9] Looking at only claims-based payments to physicians, as opposed to fully-loaded payments that include both claims-based and non-claims-based payments can have a material impact on the relative payment data.

[10] By tracking the amount of care that patients use and then attributing those utilization patterns to patients' provider organizations, we can track utilization patterns of patients by physician organization.

D. How did we evaluate provider efficiency?

Health insurers track the total medical expenses ("TME") incurred for each health insurer member back to that member's primary care provider or provider group. TME is expressed as a PMPM dollar figure that includes all the costs associated with allowed claims (including both claims-related payments by health insurers to providers and any amount the member is personally responsible for, such as a copayment) as well as non-claims based payments. TME accounts for *all* of the medical expenses associated with a member regardless of where those expenses are incurred (i.e., it includes physician visits as well as all hospital, laboratory, imaging, and other services, wherever those services occur). As such, TME reflects both the volume of services used by each member (utilization), as well as the price paid for each service (price).

We examined data from three major health insurers comparing the TME of different provider groups in their respective networks based on claims data for more than two million Massachusetts members.[11] In accordance with standard industry practices, the health insurers adjusted their TME data with standardized health status scores to account for differences in the demographics and sickness of the populations cared for by each provider group. This enables a fair comparison of relative spending per patient, and ensures that groups caring for a sicker population will not inaccurately appear as higher spending solely for that reason.

E. What is "health status," and how did we account for it?

In order to make valid comparisons of the performance of provider organizations on various metrics, it is important to take into consideration the differences in the populations served by those provider organizations. That is, some providers may care for patients who are, on average, sicker than the patients cared for by another provider, and it is important to account for that difference when comparing two provider organizations. Such health status adjusters take into consideration not only demographic differences in the population, such as age and gender, but use historical claims information to compare the relative health of a population that is served by a given provider organization. A numerical index, or health status score, is assigned to reflect the relative health of the patient population at each provider organization. That index is used to adjust, for example, the total medical expenses associated with the care of that population. For example, imagine that there are two provider organizations that each spend $400 per member per month to care for patients. Provider A has a very sick population, and Provider B has a very healthy population. We would use a health status score to adjust the dollar amounts so that, on a "health status adjusted basis," we would instead see that Provider A is effectively spending $380 PMPM, and Provider B is effectively spending $410 PMPM. This health status adjustment allows for a valid comparison between provider organizations that minimizes bias due to differences in the populations they serve.

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[11] While TME can only be calculated for providers based on members who have a designated primary care provider, whose expenses can be attributed to that particular primary care provider, the large numbers of patients insured under plans that require a primary care provider in Massachusetts means that TME is a useful metric for comparing the varying levels of expenses incurred by different provider groups per patient.

F. How did we measure provider quality?

Last year, we sought to better understand how health insurers measured the quality of providers within their networks, and how that understanding was incorporated into contract negotiations. Therefore, we reviewed both publicly available quality metrics as well as the metrics that each health insurer used to track the quality of providers in their networks.

This year, we reviewed publicly available quality data from state and national government and non-profit organizations that are well-vetted and widely accepted. For measures of hospital quality, we reviewed Centers for Medicare and Medicaid Services ("CMS") process, mortality and patient experience scores and Massachusetts Data Analysis Center ("Mass-DAC") scores. For physicians, we reviewed public information published by the Massachusetts Health Quality Partners ("MHQP"), including National Committee for Quality Assurance's Healthcare Effectiveness Data and Information Set ("HEDIS") process measures and Ambulatory Care Experiences Survey ("ACES") patient experience measures. We used these measures for two analyses. First, we compared physician prices to HEDIS process scores, and hospital prices to CMS and Mass-DAC process, patient experience, and mortality scores. Second, we reviewed CMS, HEDIS, Mass-DAC, and ACES measures to understand how providers in Massachusetts compare to each other on quality and, where national data is available, how they compare to providers nationally on quality.

Our review of physician quality data has the following limitations. First, we reviewed physician "process measures," but were unable to include any physician "outcome measures" in our analysis. "Process measures" evaluate whether a provider performs the right services at the right time, where those services are expected to result in better health outcomes for the patient. For example, providing recommended treatments for surgery patients is expected to reduce the likelihood of complications, such as infection. Process measures, therefore, serve as a proxy for measuring the quality of patient care outcomes. There may also be a relationship between payment level and performance on process measures, as higher-paid providers may have more resources to devote to tracking and reporting each instance of service. A better type of quality measure is "outcome measures," which evaluate what happened to patients who received care. For example, the mortality rate after heart bypass surgery is a widely used outcome measure. Outcome measures of physician performance are not available publicly, and so were not included in our analysis.

A second limitation of our review of physician quality data relates to our analysis of how physician price relates to physician quality. MHQP reports HEDIS process quality scores for 150 physician groups in Massachusetts. In order to compare the price paid by health insurers to the quality score as published by MHQP, we first needed to identify which MHQP providers line up with which health insurer's providers. While we used our best efforts to match provider groups reported by MHQP to provider groups reported by the health insurers, provider group names and physician grouping vary significantly from health insurer to health insurer, and between each health insurer and MHQP. Therefore, we were unable to compare all MHQP physician group quality scores to all health insurer physician group payments. These limitations underscore the need for a transparent, uniform set of quality measures for physician groups that

enables consumers, health insurers, policymakers, and others to determine whether and to what extent quality performance is related to payment levels.

G. What is the difference between "HMO," "POS," and "PPO" plans?

For the purposes of this report, "HMO" and "POS" refer to health insurance products offered by insurers in Massachusetts that require consumers to select a primary care provider and obtain referrals to other participating health care providers through that primary care provider.[12] Primary care providers may be internists, nurse practitioners, obstetricians/gynecologists, or other types of health care providers. For the purposes of this report, "PPO" refers to a type of health insurance product offered by insurers that does not require consumers to select a primary care provider or to obtain referrals to other health care providers. Any of these products (HMO/POS and PPO) may have networks that include practically all providers in Massachusetts, or some subset of those providers.

The distinction between HMO/POS and PPO products has important implications for provider global risk contracts, care coordination, and data management. Providers in Massachusetts only enter into global risk contracts for HMO/POS patients. One reason for this is related to the need to identify a group of physicians to assign accountability for the total costs of a given patient's care. That is, the costs of all the care for a given patient must be attributed to a particular provider group to enable the health insurer to determine how the provider group performed against their global risk budget target at the end of the year. For HMO/POS patients, the costs can be attributed to the provider group that the patient's primary care provider belongs to, since that group is at least partially responsible for coordinating that patient's care. Likewise, health plans give provider groups claims data associated with the population of patients enrolled with those groups' primary care providers to assist the groups in better managing the cost and quality of the population they are accountable for.

Because PPO members do not select a primary care provider, there is no provider group to hold accountable for the total costs of care for those members. In addition, since physicians do not have the information or authority to coordinate the care of their PPO patients, Massachusetts insurers do not pay providers on a global basis for PPO patients and do not typically share data regarding those PPO patients.

H. What is "care coordination"?

The goal of delivery system reform, as widely described in the literature, is to provide care that is managed across care settings, continuous over time, and patient-centered.[13] For

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[12] Insured HMO plans in Massachusetts must operate in accordance with G.L. c. 176G (Health Maintenance Organizations) and G.L. c. 176O (Health Insurance Consumer Protections) among other laws. These laws give consumers significant rights that have been established since the 1990's.

[13] *See, e.g.*, Sara J. Singer et al., *Defining and Measuring Integrated Patient Care: Promoting the Next Frontier in Health Care Delivery*, 68 MED. CARE RES. REV. 112, 113 (2010) (defining integrated patient care as "patient care that is coordinated across professionals, facilities, and support systems; continuous over time and between visits; tailored to the patients' needs and preferences; and based on shared responsibility between patient and caregivers for optimizing health."); AGENCY FOR HEALTHCARE RESEARCH AND QUALITY, CLOSING THE QUALITY GAP: A CRITICAL

purposes of this report, we use the term "coordinated care" to encompass quality care that is primary care-based and managed over time and across health care settings.

II. FINDINGS

A. There is wide variation in the payments made by health insurers to providers that is not adequately explained by differences in quality of care.

Our examination shows that there is wide variation in payments to physicians and hospitals in Massachusetts for similar services that is not adequately explained by differences in the quality of care provided. This is true whether providers are reimbursed on a traditional fee-for-service basis or paid on a global, or risk basis.

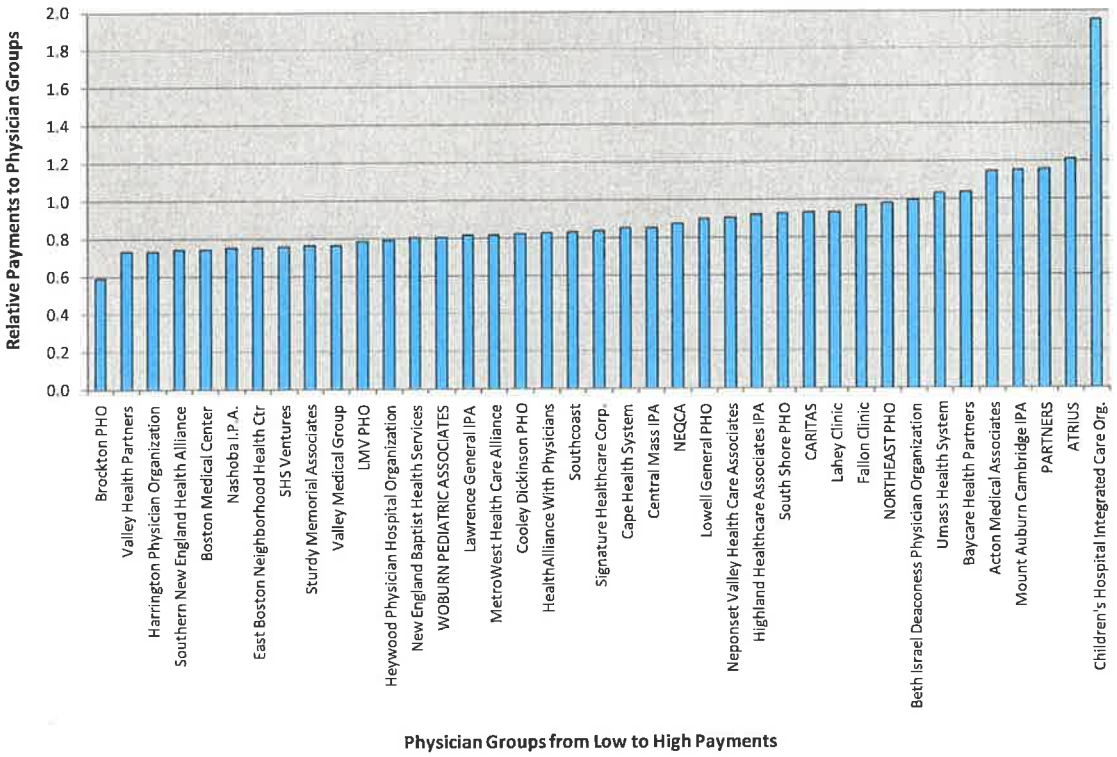
1. Payments vary significantly.

In the 2010 Report, we found significant variation in the aggregate prices and payments paid by health insurers to providers in 2008 that could not be sufficiently explained by differences in quality, complexity of services, or other characteristics that might justify variations in prices paid to providers. This year's examination found that prices and payments paid by health insurers to providers continued to vary significantly in 2009.[14] The difference in prices each major health insurer pays to its lowest paid physician groups versus its highest paid physician groups exceeds 145%, and for two health insurers, exceeds 230%. Similarly, the difference in payments made to the lowest paid versus highest paid hospital in each major health insurer's network exceeds 170%, and for two health insurers, exceeds 300%. Below are two graphs that illustrate examples of the differences in payments made by two major health insurers to physicians and hospitals in Massachusetts.

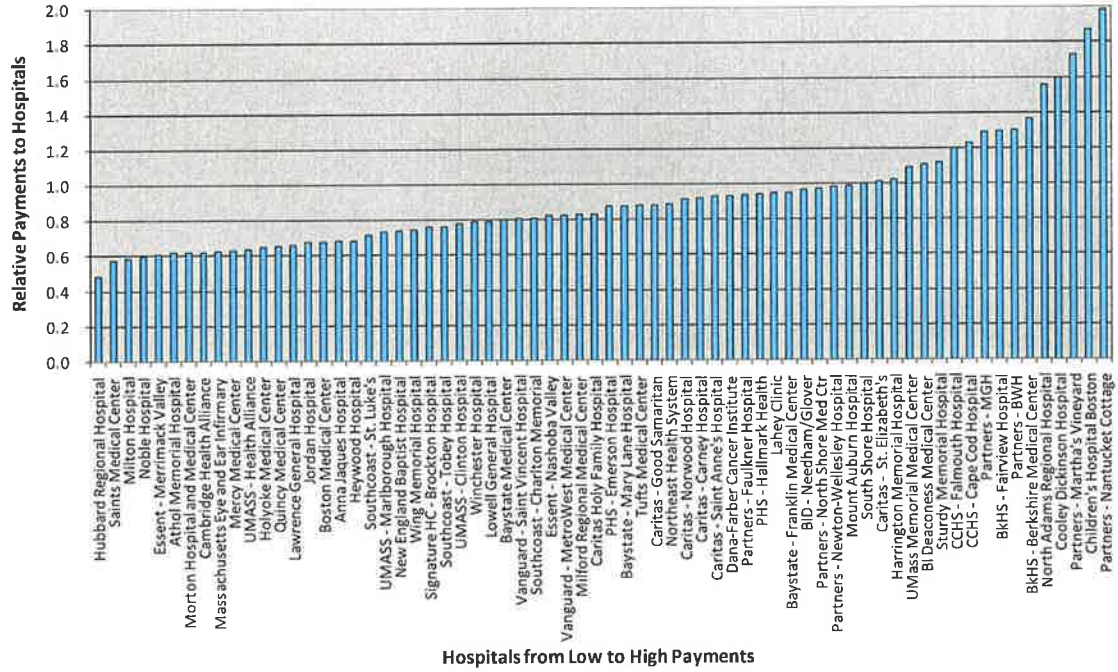
ANALYSIS OF QUALITY IMPROVEMENT STRATEGIES: VOLUME 7—CARE COORDINATION, v (June 2007), *available at* http://www.ahrq.gov/clinic/tp/caregaptp.htm.

[14] Since the 2010 Report, there have been significant developments in the Massachusetts health care market around enhanced transparency and efforts by various health care stakeholders to improve market functioning. 2010 relative payment information was not available for this examination. The 2009 data contained in this report precedes those recent advances in transparency, and therefore does not reflect any potential effects of those advances.

Variation in HPHC's Physician Payments (2009)



Variation in THP's Hospital Payments (2009)



In addition, we learned that global budgets set through negotiations between health insurers and providers vary widely from provider to provider. The difference in global risk budget for the lowest paid physician group to the highest paid physician group also varies significantly. For example, we found that one globally paid provider had a health status adjusted PMPM budget in 2009 of approximately $428, while another provider had a health status adjusted PMPM budget of approximately $276 in the same health insurer's network for the same year. Other negotiated components of each provider's payment also vary, such as whether certain medical services are "carved-out" of, or excluded from, the risk contract. See Section I(A)(2), above, for more details about other negotiated components of global risk contracts.[15] Although the amount paid by health insurers to providers may be based on factors such as the provider's historical payment levels, the health status of the provider's population, desired PPO and HMO fee-for-service rate increases, and infrastructure needs, the final global budget, and any other payments associated with the risk contract, are *entirely* negotiated. To the extent that payments are based on historical provider cost trend, the payments build in the historical disparities in prices paid to providers that are unrelated to differences in value as demonstrated in the 2010 Report. As a result of this process, there is significant variation in risk budgets negotiated between insurers and the physician groups within their networks.

The complicated structure of risk contracts currently in place in the Massachusetts market makes it difficult to compare payments made under those contracts. Each risk contract has multiple components, such as infrastructure payments, quality payments, service carve-outs, unit price adjusters, mandated benefit adjusters, individual stop-loss provisions, and other factors that are each negotiated and vary significantly across provider contracts. These components confound efforts to understand and compare how health insurers pay providers. None of the three major health insurers could provide us with health status adjusted budget information comparing the providers in their networks that they pay under a global contract. In other words, none of the health insurers routinely and systematically evaluates how the global payment contracts that they have with various provider organizations compare to each other. This convoluted payment methodology makes it difficult for regulators, market participants, or others to make valid comparisons of provider rates or valid conclusions about the effects of global payment contracts, and further complicates the ability of providers to contract for value-based, market appropriate prices. Health insurers should pay providers using standardized payment methodologies that allow providers to value the risk that they hold and so stakeholders can make valid comparisons of provider global rates.

Differentials in risk payments also raise fairness issues. Providers with lower health status adjusted global budgets have fewer dollars to spend on patients than providers with higher health status adjusted global budgets.

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[15] For example, BCBS's Alternative Quality Contract includes negotiated features such as: (1) efficiency budgets, including the budget amount and the upside/downside potentials; (2) quality bonuses, including the percent potential bonus (e.g., 5% of budget) and the entity measured (e.g., just the physicians, or physicians and hospitals); (3) fees, including whether those fees are chargeable against the budget; (4) services that are chargeable against the budget (e.g., behavioral health carve-outs) and (5) other negotiated factors (e.g., protection against changes in unit costs paid to other providers or mandated benefits).

2. Variations in price are not explained by differences in quality.

Wide variations in price are not adequately explained by differences in quality of care.[16] Major health insurers in Massachusetts confirmed that provider quality performance is not a primary factor in the negotiation of reimbursement rates with providers.[17] We compared price and quality to determine whether there is a correlation between the price paid by health insurers to providers and the quality of those providers. Our review included comparisons of physician and hospital prices to process, mortality and patient experience scores publicly available through CMS, HEDIS, and Mass-DAC. Our results indicate that there is no correlation between hospital price and quality. Our review of physician quality was hampered because no information is available to associate all MHQP designated provider groups with health insurer provider groups, and by the lack of publicly available physician outcomes measures. With the limitations noted here and in Section I(F), above, we found a moderate positive correlation between physician process measures and prices: the R^2 for each correlation was 0.44 for BCBS, 0.30 for THP, and 0.29 for HPHC. For each plan, the variation in payments made to physicians is larger than the variation in physician performance on HEDIS measures.

We also reviewed CMS, HEDIS, Mass-DAC, and ACES measures to understand how well providers in Massachusetts deliver care as compared to each other and, where national data is available, how they perform as compared to health care providers nationally. Our review shows that providers in Massachusetts deliver excellent care with little material variation in the quality of care delivered.[18] For example, substantially all Massachusetts physician groups performed above the national average on HEDIS process measures. Other measures that we examined, such as CMS hospital process measures, show the same trend: little variation in the measured quality performance of providers, and high quality care from all providers. Based on our review of these measures, there are some differences in provider quality performance and room for improvement in certain areas of performance, but our review does not suggest that any provider performs consistently better or worse than any other.

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[16] *See, e.g.*, AGO 2010 REPORT, *supra* note 2;DIVISION OF HEALTH CARE FINANCE AND POLICY (DHCFP), MASSACHUSETTS HEALTH CARE COST TRENDS, PRICE VARIATION IN HEALTH CARE SERVICES (May 2011; rev. June 3, 2011), *available at* http://www.mass.gov/Eeohhs2/docs/dhcfp/cost_trend_docs/cost_trends_docs_2011/price_variation_report.pdf [hereinafter DHCFP PRICE VARIATION REPORT]; JOEL C. CANTOR ET AL., THE COMMONWEALTH FUND, AIMING HIGHER: RESULTS FROM A STATE SCORECARD ON HEALTH SYSTEM PERFORMANCE (June 2007), *available at* http://www.commonwealthfund.org/~/media/Files/Publications/Fund%20Report/2007/Jun/Aiming%20Higher%20%20Results%20from%20a%20State%20Scorecard%20on%20Health%20System%20Performance/StateScorecard%20pdf.pdf; DOUGLAS MCCARTHY ET AL., THE COMMONWEALTH FUND, AIMING HIGHER: RESULTS FROM A STATE SCORECARD ON HEALTH SYSTEM PERFORMANCE, 2009 (Oct. 2009), *available at* http://www.commonwealthfund.org/~/media/Files/Publications/Fund%20Report/2009/Oct/1326_McCarthy_aiming_higher_state_scorecard_2009_full_report_FINAL_v2.pdf.

[17] Pay for performance programs, which reimburse providers for achieving certain quality benchmarks, have historically represented an insignificant amount of dollars as compared to overall reimbursement. BCBS's Alternative Quality Contract is an exception; it incorporates a pay for performance program that associates significant dollar amounts with achievement of quality benchmarks, and therefore seeks to reimburse providers on the basis of quality performance.

[18] *See also* DHCFP PRICE VARIATION REPORT, *supra* note 16; MASSACHUSETTS HEALTH QUALITY PARTNERS, QUALITY INSIGHTS: PRIMARY CARE IN MASSACHUSETTS, ANALYSIS OF 2010 CLINICAL QUALITY PERFORMANCE RESULTS AND TRENDS (2010), *available at* http://www.mhqp.org/quality/clinical/pdf/MHQP%20Clinical%20Quality%20Report%202010.pdf.

B. Globally paid providers do not have consistently lower total medical expenses.

Global payments are premised on the theory that reimbursing providers through risk contracts will align incentives in ways that save money.[19] This could happen in three ways: (1) doctors may have an incentive to avoid "overprescribing" services in order to increase their revenue so that the amount of care will decrease; (2) doctors may better coordinate patient care so that the amount of care will decrease (e.g., doctors will share x-ray results instead of ordering the same test multiple times, or fewer emergency room visits or hospital readmissions because of better patient management); or (3) doctors may have an incentive to refer patients to lower cost, high quality providers, resulting in a decrease in the price paid for care.

Our examination found that paying providers on a global basis has not resulted in lower total medical expenses ("TME"). We could not discern to what degree this resulted from costs inherent in the global payment structure (such as investments to manage risk), from historical variations in negotiated price, or other factors. In addition, we found that paying providers on a global risk basis presents significant challenges, such that any attempt to move to global payments on a widespread basis should be preceded by improvements in how health insurers and providers manage risk, analyze data, and protect against provider system failures.

1. There is no relationship between total medical expenses and payment methodology.

Our examination did not find any relationship between payment methodology and lower total medical expenses. The following graphs illustrate the per member per month TME of provider groups by payment method, with the groups being paid on a global payment that were at risk shown in red.[20]

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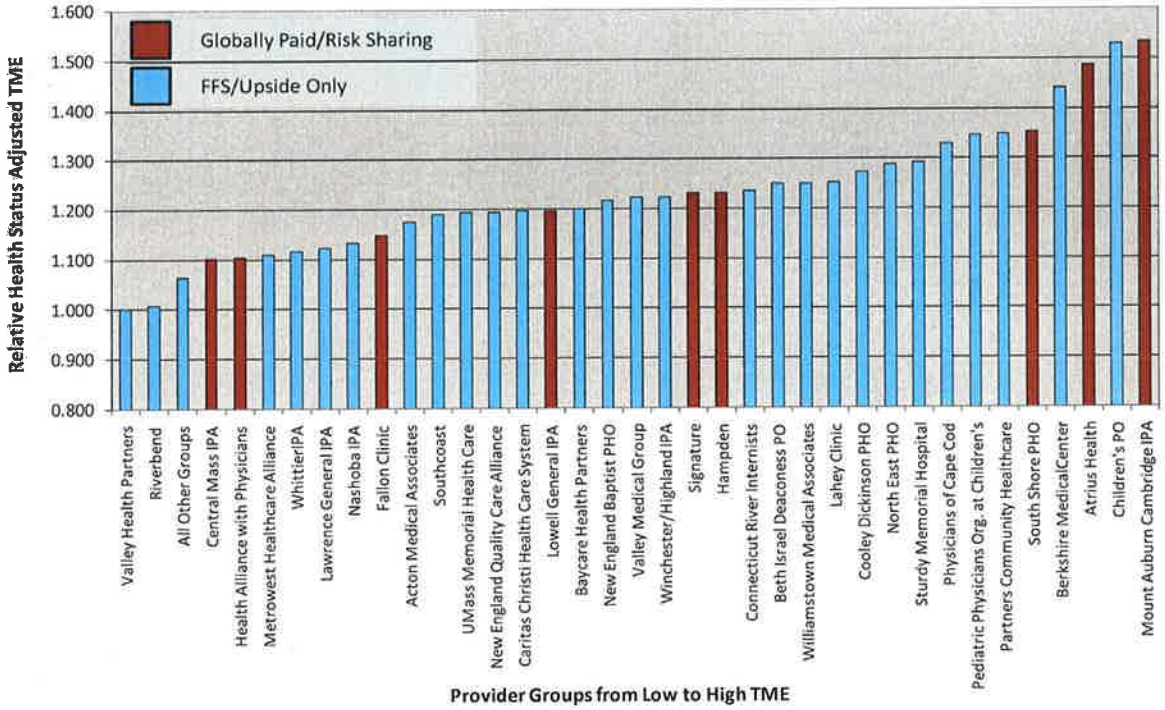
[19] *See, e.g.*, RECOMMENDATIONS OF THE SPECIAL COMMISSION ON THE HEALTH CARE PAYMENT SYSTEM, 10 (July 16, 2009), *available at* http://www.mass.gov/Eeohhs2/docs/dhcfp/pc/Final_Report/Final_Report.pdf [hereinafter PAYMENT REFORM COMMISSION RECOMMENDATIONS].

[20] For purposes of this analysis, we only classify providers as being "at risk" if they have the potential to experience a deficit. We do not include providers who are paid on a budget but who have only "upside" potential. "Upside-only" providers may earn a "surplus," but are never at risk of having a deficit.

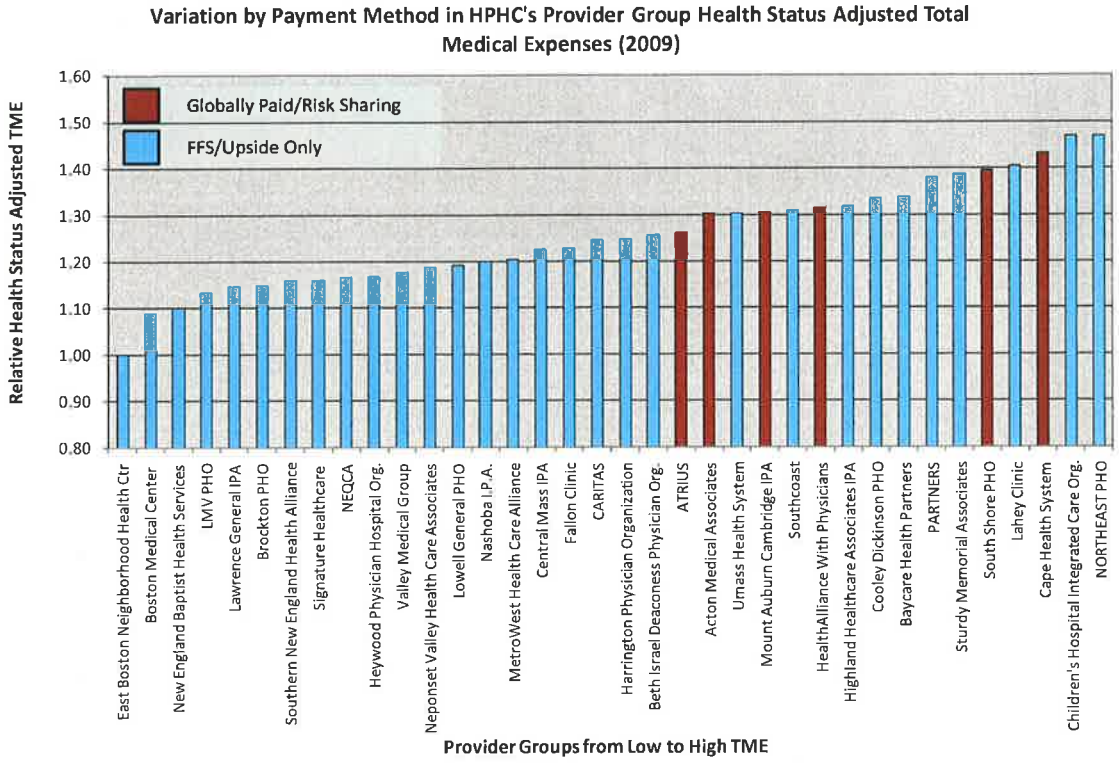
Variation by Payment Method in BCBS's Provider Group Health Status Adjusted Total Medical Expenses (2009)



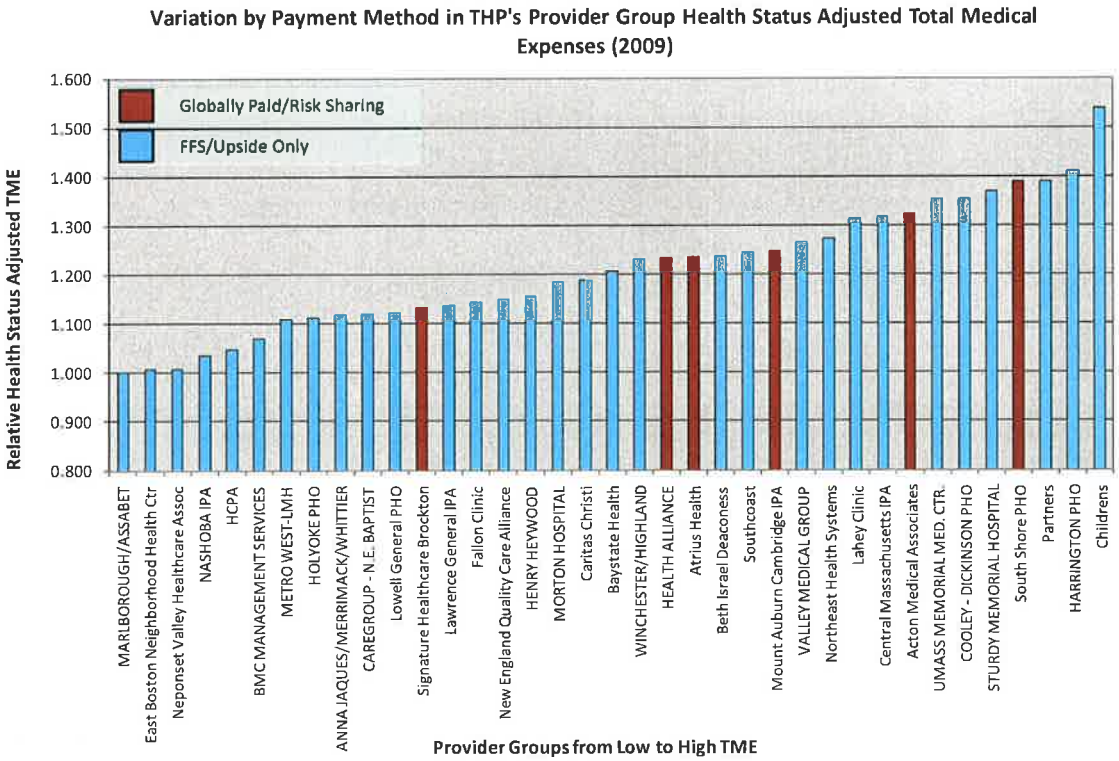
NOTES:

(1) In 2009, New England Quality Care Alliance (NEQCA) had a risk-sharing contract for some of its BCBS members with primary care providers at NEQCA (those fully-insured members with providers at Primary Care LLC, a subgroup of NEQCA).

(2) In 2009, Fallon and HAPI had risk-sharing contracts for their fully-insured members only. Only some Lowell physicians had risk-sharing contracts for HMO members.



NOTE: All providers in red had a risk sharing contract for their fully-insured members only.



NOTE: All providers in red had a risk sharing contract for their fully-insured members only.

As illustrated by the above graphs, providers paid under a global risk contract do not have consistently lower TME than providers paid under a fee-for-service contract. Some risk-sharing provider groups are among the highest TME providers in the state while some groups paid on a fee-for-service basis are among the lowest TME providers in the state. This is true even for providers who have been in global risk contracts for five or more years with all three large health insurers, including Atrius, Health Alliance, Mount Auburn Cambridge IPA ("MACIPA"), and South Shore PHO.

There are several potential explanations for why providers who are paid under a global risk contract do not have lower TME. First, it could be that any cost savings generated by risk-contracts through referral of patients to lower cost providers and/or lower utilization are outweighed by the costs associated with managing risk and providing care coordination. For example, our analysis of utilization data provided by one major health insurer suggests that at risk providers have slightly lower medical and surgical inpatient hospital admissions than providers who are not at risk.[21] Although even a modest reduction in hospital admissions is positive result, we did not find a correlation between that lower utilization and lower TME.

Alternatively, it may be that global payments do not always drive patient volume to lower cost providers where (1) risk payments are set high so that physicians do not have a strong financial incentive to refer to lower priced providers, (2) provider systems include certain hospitals and there is incentive to use that hospital, no matter how high the cost, and/or (3) entrenched referral patterns present a challenge to moving volume to lower cost, high quality providers (either because of established clinical relationships, or because patients resist being referred to lower cost, high quality providers).[22] Finally, global payments may not result in lower utilization rates where payments are set high so that physicians do not have a strong financial incentive to lower utilization. Although it is unclear whether these or other reasons explain the findings, above, the fact remains that global risk payments have not resulted in lower TME.

2. Global payments pose significant challenges and their negotiated nature can lead to unintended results.

As policymakers and stakeholders grapple with whether and how global payments might improve care delivery or lower costs, we must also consider whether consumers and many provider groups are prepared for broad implementation of global payments. First, most

[21] With expert assistance, we selected and reviewed this measure and two others (the ratio of emergency department utilization to PCP utilization, and the ratio of specialty physician utilization to PCP utilization) that we expect would be affected by the level of provider care coordination. Our review of one health insurer's utilization data found that, on these three measures, at risk providers performed slightly better than fee-for-service providers. However, we did not find that better performance on these measures of utilization was linked to lower TME.

[22] This possibility is underscored by the fact that many HMO patients currently obtain care outside of the four walls of their physician group, and often from providers who have no relationship with their physician group. For example, for MACIPA and South Shore PHO, who have been paid on a risk basis for many years, one health insurer's data shows that less than 50% of the adult inpatient care received by MACIPA and South Shore PHO patients in 2009, as measured by revenue, went to the "home" hospitals (Mt. Auburn and South Shore hospitals, respectively).

providers in Massachusetts do not have experience budgeting a fixed sum for all of the care their patient population will need in a given year. Second, risk contracts continue to expose providers to random insurance risk,[23] which they are ill-equipped to bear, and which creates a troubling incentive for providers to "size up." Both of these concerns are addressed in Section F(2) below. Third, we need to ensure that the incentive to manage risk contracts does not lead providers to avoid patients whose care may be more difficult to manage.[24] Additionally, there are significant concerns regarding how risk contracts should interact with self-insured accounts.[25]

Finally, while many stakeholders hope that global payments will reward providers for efficient delivery of care, we found that thus far, this has often not been the case. Our review shows that, due to negotiated differences in contracts, providers with higher TME (less efficient providers) are sometimes "rewarded" with surpluses, while providers with lower TME (more efficient providers) are sometimes "penalized" by having to pay a deficit. Negotiated differences in global budgets, rather than the relative efficiency of providers, is a better predictor of whether a provider will receive a surplus or pay a deficit. For example, one provider ran a deficit with a major health insurer in a year that it spent on average of $288.45 per member per month. In the same year, other groups spent significantly more than $288.45 per member per month, but did not have a deficit because their target budgets were set much higher.[26]

These challenges do not mean that global payment reform is unwise. It means that reform must be coupled with mitigation of historic payment disparities and preparation of providers, where appropriate, to handle risk contracting.

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[23] "Financial risk involves both (1) actuarial or insurance risk that is subject to random fluctuations providers have no control over and (2) more technical risk for the cost of care that providers have more control over, although patient decisions also have a significant impact. A key challenge is how to put providers at technical risk, for example, for avoidable costs but not subject them to any or little actuarial or insurance risk." KELLY DEVERS AND ROBERT BERENSON, CAN ACCOUNTABLE CARE ORGANIZATIONS IMPROVE THE VALUE OF HEALTH CARE BY SOLVING THE COST AND QUALITY QUANDARIES? TIMELY ANALYSIS OF IMMEDIATE HEALTH POLICY ISSUES, 12 n.34 (Oct. 2009).

[24] Historically, risk providers in Massachusetts have served populations that are relatively healthy. For example, from 2005 to 2009, for each major health insurer, risk providers served populations that were healthier than the populations served by non-risk providers (on average, risk providers had health status scores about 5-10% lower than the non-risk providers). Beyond health status, many other factors may affect the cost of managing the care of a given individual or population, including, for example, educational, cultural, or linguistic differences, or considerations like substance abuse that health status scores do not directly reflect.

[25] Membership in self-insured plans has grown steadily and now accounts for more than half of private group enrollment. DIVISION OF HEALTH CARE FINANCE AND POLICY, HEALTH CARE IN MASSACHUSETTS: KEY INDICATORS, 6 (Nov. 2010), *available at* http://www.mass.gov/Eeohhs2/docs/dhcfp/r/pubs/10/key_indicators_november_2010.pdf [hereinafter DHCFP KEY INDICATORS]. Self-insured plans are arrangements in which an employer provides health benefits to employees and assumes the insurance risk for claims payment. For self-insured plans, unlike fully-insured plans, the health insurer acts as a third party administrator and is not at risk for medical costs. The ability of the state to regulate self-insured employer benefit plans is constrained by the federal Employee Retirement Income Security Act of 1974 (ERISA). ERISA, Pub. L. No. 93-406, § 2. Under risk contracts, "self-insured" employers may no longer bear risk for the employee health plan. Instead, the "self-insured" employer would effectively contract with the risk provider to cover the costs of plan members, thereby ceding the risk associated with the employee health benefit plan.

[26] These other groups did not receive higher budgets, or spend more, because their patients were sicker; they simply received more money to care for their patients than the group that ran a deficit.

3. The Alternative Quality Contract.

Blue Cross Blue Shield of Massachusetts recently introduced the Alternative Quality Contract ("AQC") into the Massachusetts market, which uses a global payment methodology.[27] We examined the AQC model because it is different than other global risk contracts in the Massachusetts market in that it is designed to constrain cost trends by reducing each provider's increase in medical claims trend over a five-year period. Findings of financial performance should not be taken as a critique of the AQC model and do not reflect on other components of the AQC model. For example, the AQC model associates significant monetary rewards with achievement of quality performance. This alignment of payment for value is a step in the right direction toward value-based purchasing. We reviewed the AQC model to determine whether 2009 AQC provider contracts, as negotiated, resulted in cost savings, or are likely to result in long-term cost savings, as compared to non-AQC providers.

a. AQC providers experienced a significant increase in prices and total medical expenses from 2008 to 2009.

We examined the change in TME for five of the six providers who participated in the AQC in 2009: Atrius, Lowell, MACIPA, Signature, and South Shore PHO.[28] Although the AQC is designed to lower the trend in health care spending over time, in the first year of the AQC, total spending on health care went up for all five groups.[29]

2009 AQC Provider Groups	Health Status Adjusted Total Medical Expenses		% Change in Adjusted Total Medical Expenses
	2008	2009	
Atrius	$415.59	$452.56	8.9%
Lowell	$323.63	$364.17	12.5%
MACIPA	$397.04	$466.95	17.6%
Signature	$355.40	$374.68	5.4%
SSPHO	$380.71	$412.24	8.3%

NOTES:

(1) 2008 TME was adjusted to reflect differences in the health status between the groups represented. 2009 TME was also adjusted for the change in sickness of the populations served by each provider from 2008 and 2009.

(2) Due to changes in organizational structure, 2008 TME data for Signature is for Brockton PHO, while 2009 TME is for Signature.

(3) Lowell has risk-sharing contracts for some, but not all of its physicians.

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[27] In addition to global budgets for medical services, the AQC contract also incorporates quality incentive payments. BCBS has noted that the AQC contract model has resulted in significant improvement in provider quality. Our examination of physician quality scores shows that, for HEDIS measures incorporated into the AQC contract, providers who were participating in the AQC in 2009 did not have statistically better performance than non-AQC providers on the same measures. On a normalized basis, using a straight average of performance on HEDIS measures incorporated into the AQC contract, AQC providers scored an average of 1.01 on HEDIS measures while non-AQC providers scored an average of 0.98 on the same measures.

[28] Hampden is not included in this analysis because TME information did not exist for that group in 2008.

[29] It is important to evaluate provider cost performance by looking at *total* dollars paid to providers in order to understand the total costs to the system. Evaluating subsets of expenses (e.g., looking at the medical claims in isolation, without quality payments or fees) cannot provide a complete picture of the costs associated with a given contract.

In total, from 2008 to 2009, the TME of these five AQC groups went up an average of 10%. This is in contrast to non-AQC groups, whose average TME increased 1.7% from 2008 to 2009.[30]

Because TME reflects *all* payments made for member services (risk settlements, fee-for-service payments for carved-out services, and other non-claims based payments such as infrastructure fees and quality payments), as well as volume of services, our examination could not attribute this increase in TME to a single factor. However, one key reason for this increase in TME is that the amount of money BCBS paid to each AQC provider increased from 2008 to 2009.[31] The table below shows the increase in relative prices paid by BCBS to five AQC providers from 2008 to 2009.

AQC Provider Groups	2008 Relative Payment	2009 Relative Payment	% Change in Relative Payment
Atrius	1.89	2.19	15.9%
Lowell	1.05	1.33	26.7%
MACIPA	1.35	1.84	36.3%
Signature	1.01	1.38	36.6%
SSPHO	1.05	1.19	13.3%

NOTES:
(1) Relative prices are not normalized to the network.
(2) Due to changes in organizational structure, 2008 relative price data attributed to Signature is for Brockton PHO, while 2009 relative price data is for Signature.
(3) Lowell has risk-sharing contracts for some, but not all of its physicians.

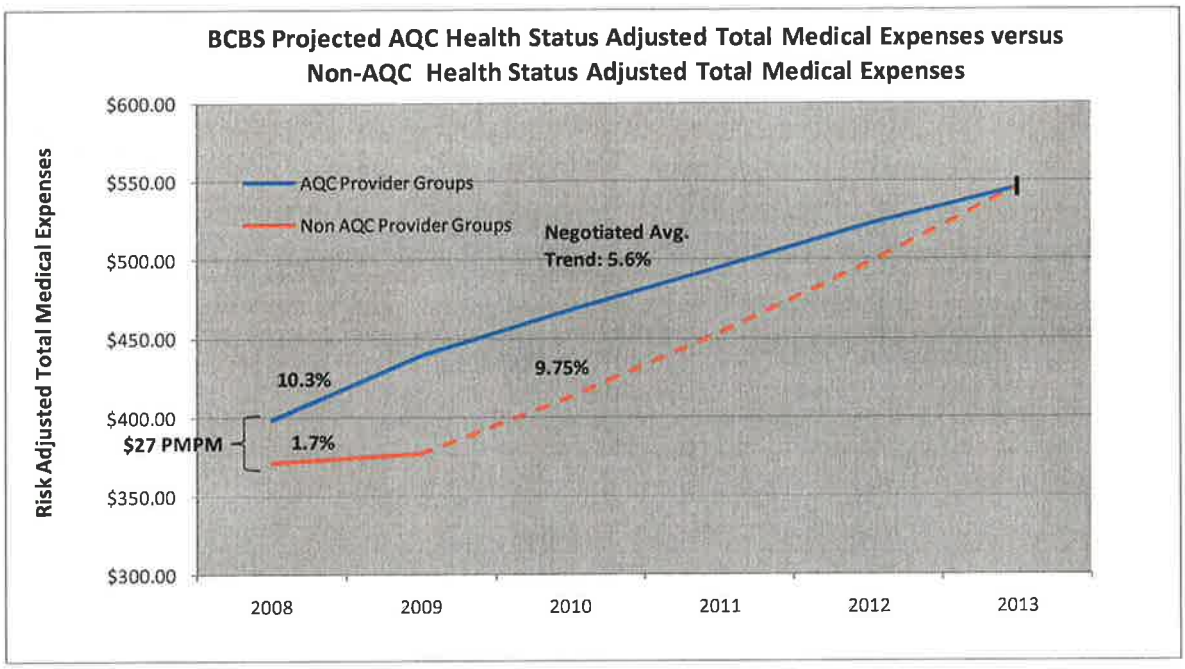
b. The negotiated trend increases for 2009 AQC providers are unlikely to result in lower TME by 2013 for those AQC providers versus non-AQC providers.

The AQC model is designed to constrain TME over time by reducing the increase in medical claims trend. For example, an AQC provider may receive a 7% increase in its medical claims budget in year 1, a 6% increase in year 2, a 5% increase in year 3, and so on. Four of the 2009 AQC providers have these negotiated trend adjusters in their contract: Atrius, Lowell, MACIPA, and Signature. Using those contractually set trend adjusters and current TME, we can model the TME for AQC providers over the next few years.

[30] AQC providers considered for this analysis include Atrius, Lowell, MACIPA, Signature, and SSPHO. Southcoast was included in the non-AQC group because, although its contract resembles the AQC contract, it does not have any downside risk and BCBS does not consider it to be an AQC provider. Hampden is not included in this analysis because TME information did not exist for that group in 2008. Changes in TME were calculated by using actual 2008 and 2009 TME PMPM trends and raw health status score trends by provider to calculate a TME trend excluding health status changes. Subtotal PMPM's for the AQC and non-AQC populations were weighted using 2009 member months.

[31] In addition, AQC contracts often contain significant quality payments that did not exist prior to entering the AQC. For example, the average pay for performance quality payment made in 2009 to providers in non-AQC contracts was approximately $3 PMPM under BCBS's "GPIP" program, and approximately $1.85 under BCBS's "PCPIP" program, while the weighted average quality payment made to AQC providers in 2009 was $16.21 PMPM.

The following graph shows the actual health status adjusted TME[32] of AQC providers (purple line)[33] and of non-AQC providers (red line) from 2008-2009.[34] We used the negotiated average increase in AQC provider trend to model AQC provider TME for 2010-2013 (purple line). Given the size of the increases in reimbursement that these four providers received in the first year of their AQC contracts (from 2008-09, as detailed in the price and TME tables in the preceding section), non-AQC providers would have to increase their health care spending by 9.75% (red dotted line) every year until 2013 just to reach the *same* level of spending as the AQC providers. While it is impossible to know what AQC providers' TME trend would have looked like in the absence of entering the AQC, it is reasonable to conclude that it is unlikely the AQC contracts will result in lower TME by 2013 for the AQC providers compared to the non-AQC providers.



NOTES:

(1) AQC provider groups include Atrius, Lowell, MACIPA and Signature. Hampden is not included in this analysis because TME information did not exist for that group in 2008. South Shore PHO is not included in this analysis because it does not have a set negotiated trend adjuster. Southcoast is included in the "non-AQC provider group" trend because, although its contract resembles the AQC contract in many ways, it is not at risk and BCBS does not consider it to be an AQC provider.

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[32] The TME data for each of the health insurers reflects allowed amounts, meaning it includes both the health insurer's liability and the member's share of claims costs. This data does not allow us to adjust for any utilization differences related to product design. In other words, to the extent that TME trend has changed because higher patient cost sharing has had a deterrent effect on members' use of health care services, we were not able to normalize for any such differences based on current data sources.

[33] The TME experience of AQC providers from 2008 to 2009 *including* South Shore PHO is 10%, as illustrated above in II(B)(3)(a). Here, the available data limited us to the review of AQC providers *excluding* South Shore PHO, which brings the trend up to 10.3%.

[34] We requested TME data for BCBS provider organizations for the years 2005-2009. BCBS informed us that they do not have TME information for providers prior to 2008.

(2) 2008 TME represents actual 2008 TME normalized for health status differences. This 2008 adjusted TME is then trended forward to 2009 using actual PMPM trends adjusted for changes in health status scores by providers. Subtotal PMPM's for the AQC and non-AQC populations were weighted using 2009 member months to normalize for population shifts among provider groups.
(3) 2010 - 2013 AQC trends are based on each provider's 2009 adjusted TME trended at negotiated, contractually set budget trends; this analysis assumes that any component of TME that is not the medical budget (for example, carved-out services, quality payments and fees) will increase at negotiated budget trends.
(4) BCBS produced data that indicates that it predicts the increase in trend for these four AQC providers will be 5%, rather than 5.6%. When AQC provider trend is modeled at 5%, the non-AQC group requires a 9.1% (as opposed to 9.75%) trend to achieve approximate parity in 2013 with the 2009 AQC providers.
(5) Providers that entered an AQC contract in 2010 are included in the non-AQC provider group trend. When those providers are excluded from the non-AQC provider group (and therefore are entirely excluded from the analysis), the non-AQC group requires a 9.65% trend (as opposed to 9.75%) to achieve approximate parity in 2013 with the 2009 AQC providers.
(6) Due to changes in organizational structure, 2008 TME data for Signature is for Brockton PHO, while 2009 TME is for Signature.
(7) Lowell has risk-sharing contracts for some, but not all of its physicians.

C. Total medical spending is on average higher for the care of health plan members with higher incomes.

While we did not uncover any relationship between TME and payment method, we did uncover a relationship between TME and patient income. TME is the total dollar amount spent on all the care of a health plan member, expressed per member per month, and includes both the amount spent by the health insurer, and any copayment or deductible paid by the member. We compared information from the three major health insurers on average TME by zip code, with information from the Internal Revenue Service on average income by zip code (reflecting all tax filers in that zip code, regardless of form of health insurance), and found that more is spent on the health care of patients from higher-income zip codes. Because the TME information from the health insurers is health status adjusted, higher spending is not explained by the member being sicker or older. Moreover, because TME reflects spending on "covered services" – those services eligible for health insurance coverage – it does not include spending on discretionary services such as cosmetic surgery unrelated to a health condition. Finally, the major health insurers in Massachusetts offer their members comprehensive plans that meet minimum creditable coverage standards.[35] We were not, however, able to adjust for any extent to which different levels of consumer cost-sharing among these comprehensive plans influenced decisions by members whether to get health care services.

The following graphs examine the relationship between TME and patient income at each of the three major health insurers by comparing, for each Massachusetts zip code,[36] the 2009

[35] "Minimum creditable coverage" is a statutory standard that health insurance plans in Massachusetts must meet. This standard is designed to provide access to "a broad range of health care services," including preventive and primary care services, emergency services, hospital stays, outpatient services, prescription drugs, and mental health services. *See* 956 MASS. CODE REGS. 5.03 (2009) (definition of minimum creditable coverage established by the Massachusetts Health Insurance Connector Authority pursuant to MASS. GEN. LAWS. c. 111M, § 1).
[36] There are approximately 675 zip codes in Massachusetts. Our analysis excludes zip codes in which the health insurer's combined HMO/POS and PPO member months for the zip code were less than 1,000.

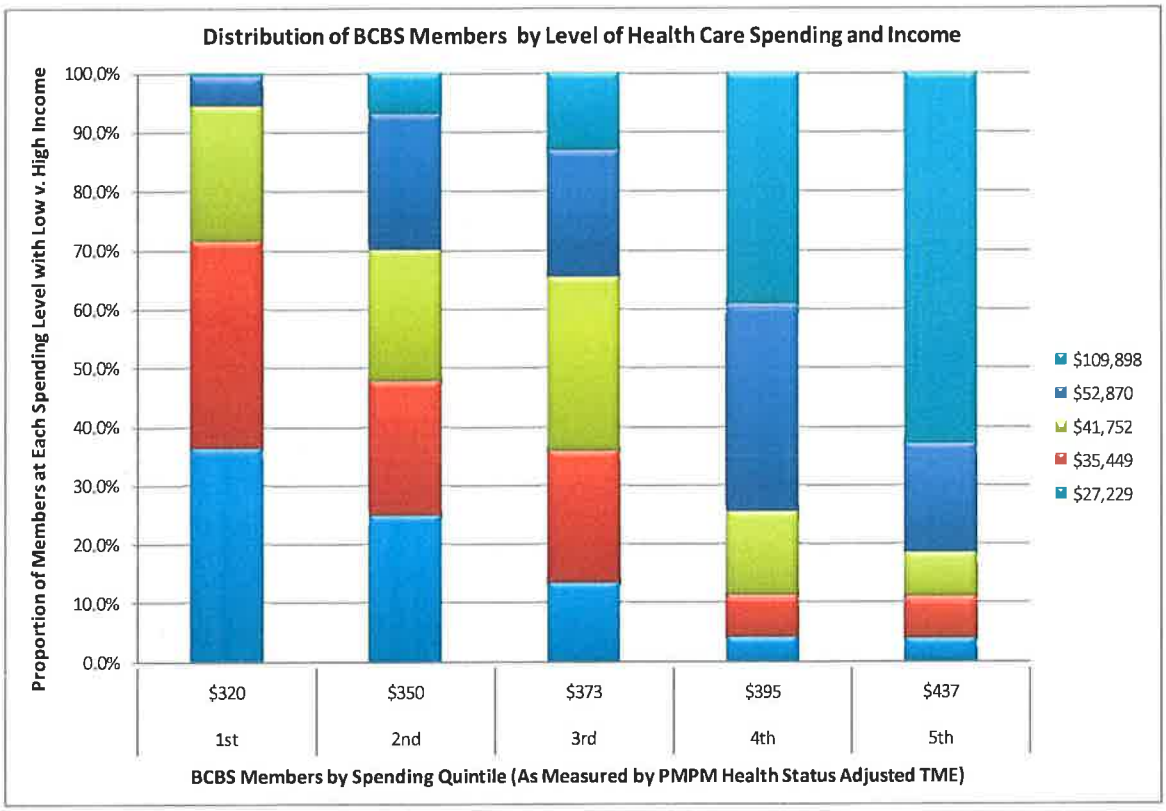
average health status adjusted TME[37] per health plan member, both PPO and HMO members,[38] with the 2007 average income per federal income tax filer in that zip code.[39] Each graph groups the Massachusetts zip codes into five cohorts of equal size (i.e., 20% of zip codes in each cohort) based on average TME. The 20% of zip codes with the lowest TME per member are represented by the left-most bar in each graph, while the 20% of zip codes with the highest TME per member are represented by the bar to the far right. Within each spending level cohort, we show the proportion of members from zip codes with lower incomes versus higher incomes. For example, members from zip codes with the lowest average incomes are shown in royal blue, and members from zip codes with the highest average incomes are shown in turquoise. The data on commercial health care spending from all three health insurers shows the same pattern: the TME for higher-income commercial patients (in turquoise) tends to be higher than the TME for lower-income commercial patients (in royal blue), taking into account differences in health status (meaning that higher levels of spending are not explained by the patient being sicker or older). We also examined this TME and income data by region using the seven regions the MA Division of Insurance has defined for small group rating purposes,[40] and found that the relationship between level of commercial health care spending and patient income is strongest in Regions 3 (Metrowest), 4 (Northeastern MA), and 5 (Boston and surrounding towns).

[37] The TME data for each of the health insurers reflects allowed amounts, meaning it includes both the insurer's liability and the member's share of claims costs. While this data normalizes for any differences in cost sharing by zip code, it does not allow us to adjust for any utilization differences related to product design by zip code. For example, if some zip codes had a higher proportion of members in high deductible plans, which had an additional deterrent effect on members' use of health care services, we were not able to normalize for any such differences across zip codes based on current data sources.

[38] We combined the HMO/POS and PPO data for each insurer to maximize the number of member months per zip code and therefore increase the credibility of the analysis. Due to the nature of the information request, HPHC and THP did not provide un-normalized health status scores. For these two insurers, we combined HMO/POS and PPO risk-adjusted TME data by calculating a weighted average using the HMO/POS and PPO member months for each zip code. BCBS provided un-normalized health status scores; therefore, we combined the unadjusted HMO/POS and PPO TME data and un-normalized health status scores by weighting by member months, and then risk adjusted and normalized the combined TME by zip code.

[39] We received data from the Internal Revenue Service, Statistics of Income Division, on 2007 adjusted gross income, total number of returns, and total number of joint returns for each Massachusetts zip code. We calculated the total number of filers per zip code by counting the number of joint returns as two and the remaining returns as one. We then divided adjusted gross income for each zip code by the total number of filers per zip code to calculate the average adjusted gross income per filer for each zip code. Note that the income data reflects all Massachusetts residents who filed a federal tax return, and there is no way to distinguish which filers had commercial insurance with one of the three health insurers surveyed, other health insurance, or even no health insurance.

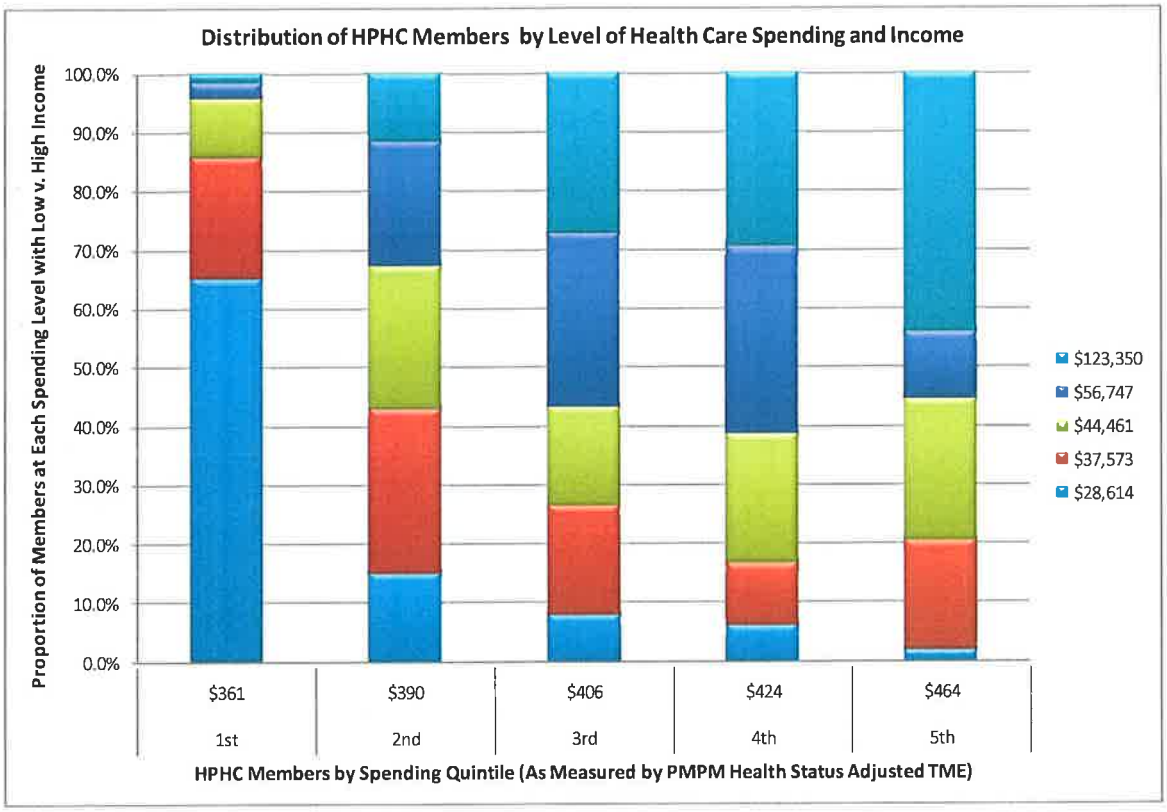
[40] *See* 211 MASS. CODE REGS. 66.08(2)(b) (area rate adjustments for small group health insurance).



NOTES:

(1) Graph reflects per member per month health status adjusted total medical expenses of BCBS commercial (HMO/POS, PPO, indemnity) members, reported by Massachusetts zip code.

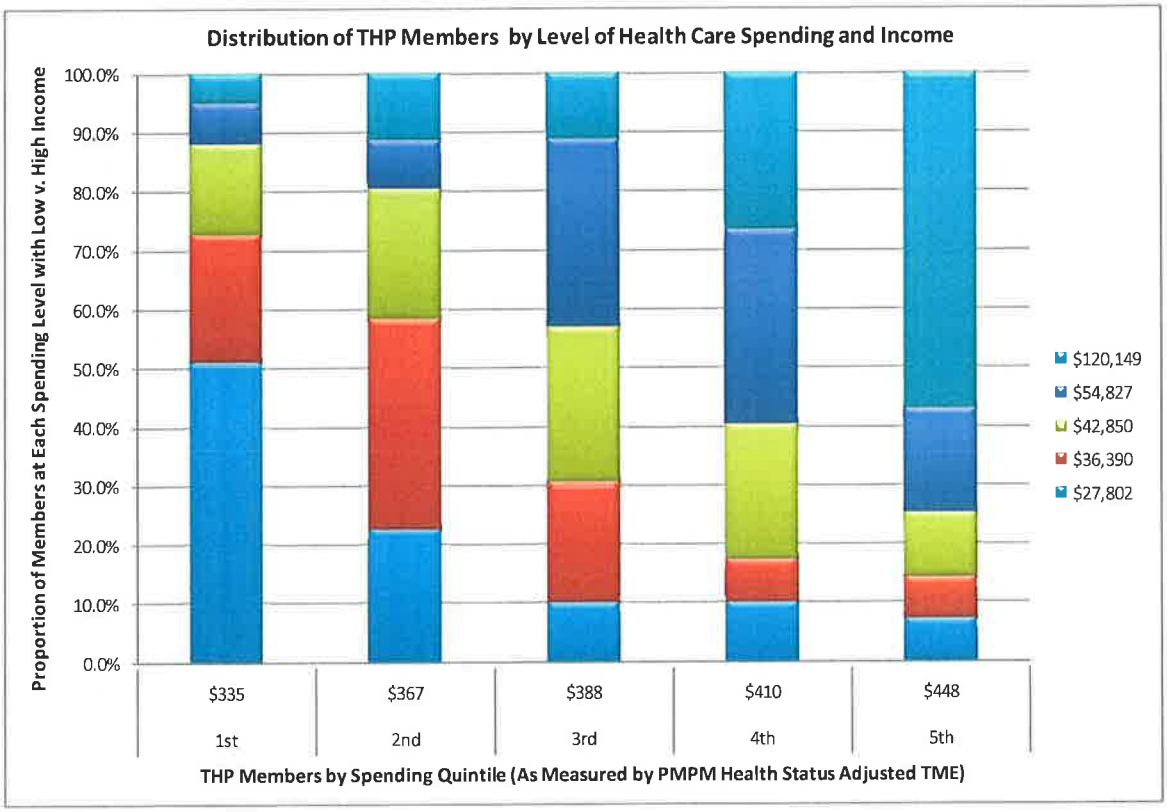
(2) Income data is from the Internal Revenue Service, Statistics of Income Division, and reflects 2007 adjusted gross income per Massachusetts federal income tax filer, weighted by BCBS commercial membership for each Massachusetts zip code.



NOTES:

(1) Graph reflects per member per month health status adjusted total medical expenses of HPHC commercial (HMO/POS and PPO) members, reported by Massachusetts zip code.

(2) Income data is from the Internal Revenue Service, Statistics of Income Division, and reflects 2007 adjusted gross income per Massachusetts federal income tax filer, weighted by HPHC commercial membership for each Massachusetts zip code.



NOTES:

(1) Graph reflects per member per month health status adjusted total medical expenses of THP commercial (HMO/POS and PPO) members, reported by Massachusetts zip code.

(2) Income data is from the Internal Revenue Service, Statistics of Income Division, and reflects 2007 adjusted gross income per Massachusetts federal income tax filer, weighted by THP commercial membership for each Massachusetts zip code.

In general, a combination of two factors drives differences in spending: price (using higher-priced providers) and utilization (using more health care services).[41] We have not examined the relative role of price and utilization in driving the clear spending differentials outlined above. To the extent the increased cost of caring for higher-income patients, unrelated to health status or age and resulting in part from differential use of higher-priced providers, is spread through a larger risk pool (e.g., as may happen in the small group market or in a single large employer group like the Group Insurance Commission), those with lower TME may be subsidizing the higher cost of care of those with higher TME in the same risk pool. This highlights the need for effective tools to reward value-based purchasing, so that (1) consumers who get care at high-quality, lower-cost providers are appropriately rewarded with savings and (2) high-quality, lower-cost providers are rewarded for their efficiency with patient volume.

[41] A third factor that can underlie spending differences is service mix: higher-income patients may be consuming more expensive services to treat the same illnesses, as compared to lower-income patients. For example, if an expensive surgery and a less-expensive physical therapy regimen are both effective treatments for an injured knee, higher-income patients may be opting for, or being directed by their physicians to receive, the more-expensive treatment more often than lower-income patients.

D. Tiered and limited network products have increased consumer engagement in value-based purchasing decisions.

The concentration of health care spending at higher-cost providers[42] provides a significant opportunity for employers and consumers to save on health care costs without sacrificing quality. Shifting care to more efficient providers would translate into immediate cost savings for the Commonwealth. Currently, consumers have little to no incentive to switch to more efficient providers because they are not rewarded with the cost savings associated with that switch. Instead, those cost savings are distributed across everyone's premiums. While there are important costs that insurance is designed to pool, such as the cost of chronic or unexpected health events, spreading the cost of the payment disparities outlined in Section II(A) has led to two key market dysfunctions: (1) it has de-sensitized consumers from value-based choices and (2) it has discouraged providers from competing on value.

As in our 2010 Report, we continue to find that health insurance products that differentiate among providers based on value are a key tool to ameliorate market dysfunction and lower health care costs. Tiered and limited network products provide the option, for interested consumers, to realize immediate savings for choosing efficient providers. By rewarding efficient providers with greater patient volume, these products also give providers a viable business model to compete on value, instead of amenities or capital investment. Further, these product designs can be applied to all plans, HMO and PPO alike.[43]

Tiered and limited network products improve on past efforts to encourage prudent purchasing through product design in several important ways. Historically, product design has focused predominantly on increases in "flat" copayments and deductibles that are not related to the underlying value provided by the provider group.[44] The principle behind increases in flat copayments or deductibles is to sensitize the consumer to the fact that health care services have a cost, and to discourage over-utilization. But because flat copayments and deductibles do not differentiate between efficient versus inefficient providers, and apply equally to necessary and unnecessary health care services, they may discourage needed care, and do not address the opportunity to reduce costs by shifting needed care to more efficient providers. Additionally, flat deductibles do not effectively sensitize consumers to avoid unnecessary care once the deductible has been expended, they have a disproportionate impact on the chronically ill, and they are regressive.[45]

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[42] *See, e.g.*, AGO 2010 REPORT, *supra* note 2, at 38-40 ("Higher priced hospitals are gaining market share at the expense of lower priced hospitals, which are losing volume"); DHCFP PRICE VARIATION REPORT, *supra* note 16, at 2, 22 (service volume tends to be concentrated in higher paid hospitals).

[43] Although PPO plans have developed among the major commercial health insurers in MA to be all-inclusive network plans, there is no reason why a PPO limited network product could not be developed.

[44] *See, e.g.*, DIVISION OF HEALTH CARE FINANCE & POLICY, MASSACHUSETTS HEALTH CARE COST TRENDS: PREMIUM LEVELS AND TRENDS IN PRIVATE HEALTH PLANS: 2007-2009, 3, 28 (May 2011) (deductibles and copayments for commercial health insurance in MA generally increased from 2007 to 2009), *available at* http://www.mass.gov/Eeohhs2/docs/dhcfp/cost_trend_docs/cost_trends_docs_2011/premium_report.pdf; ROBERT WOOD JOHNSON FOUND., CHANGES IN HEALTH CARE FINANCING & ORGANIZATION, HEALTH CARE BENEFITS – CREATING THE OPTIMAL DESIGN 2 (July 2009) ("Deductibles are increasing, and copayments and other cost sharing are increasing as well."), *available at* http://www.hcfo.org/files/hcfo/issue0709.pdf.

[45] *See, e.g.*, KAISER FAMILY FOUND., COST SHARING FOR HEALTH CARE: FRANCE, GERMANY, & SWITZERLAND, 1 (Jan. 2009) ("Although cost sharing is designed to reduce utilization of unnecessary health care services and

1. Tiered Products

Tiered products typically allow consumers wide choice in where they receive care, but differentiate (or "tier") the copayment the consumer is responsible for paying depending on the cost and quality of the provider that the consumer chooses. Tiered products can lower premiums for consumers at the point of enrollment, and can result in lower out-of-pocket copayments at the point of service if the consumer chooses a lower-cost, high-quality provider when the consumer needs care.

In January of this year, following passage of Chapter 288 of the Acts of 2010, BCBS introduced a new tiered option to its plans, Hospital Choice Cost-Share. This option offers consumers significantly lower copayments for choosing any of 53 high-value hospitals or additional freestanding outpatient centers for a wide range of services,[46] and couples these tiered copayments with higher out-of-pocket maximums designed to maintain the incentive to choose high-value providers throughout the insurance contract year.[47] In addition to this point of service cost difference, Hospital Choice Cost-Share provides an average premium savings of roughly five percent at the point of enrollment. While more months of data are needed to assess consumers' response to Hospital Choice Cost-Share and its effect on trends in medical costs, initial reception to this new option has been promising, with approximately 40,000 members enrolling in the first few months, compared to other tiered or limited network products that have been available to the fully-insured market for a number of years, but have enrolled only a small fraction of that number.

Hospital Choice Cost-Share, which differentiates copayments by as much as $1,000, goes further than other tiered products in the market in the amount of point-of-service savings available to consumers who choose a high-value hospital. Even so, as seen in Section II(A) above, the differences in payments received by high-cost versus high-value providers for quality care can exceed this $1,000 cost-share. In other words, the true incremental cost of choosing a high-cost hospital can exceed $1,000. In this sense, even greater cost differentiation or savings may be available to consumers who are committed to choosing high-value providers – especially consumers willing to get their care *exclusively* from high-value providers, which is the example we turn to next.

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increase the cost-consciousness of consumers, it may discourage people from using necessary health care and can be inequitable for the very sick and the low income."), *available at* http://www.kff.org/insurance/upload/7852.pdf; JONATHAN GRUBER, KAISER FAMILY FOUND., THE ROLE OF CONSUMER COPAYMENTS FOR HEALTH CARE: LESSONS FROM THE RAND HEALTH INSURANCE EXPERIMENT AND BEYOND (Oct. 2006), *available at* http://www.kff.org/insurance/upload/7566.pdf.

[46] Non-emergency inpatient admissions, outpatient surgery, laboratory services, X-rays and imaging, high-tech radiology, and physical, occupational and speech therapy. *See* Press Release, Blue Cross Blue Shield of Mass., *Blue Cross Blue Shield of Massachusetts Announces the Hospital Choice Cost-Share Feature* (Feb. 10, 2011), http://www.bluecrossma.com/visitor/newsroom/press-releases/2011/newsRelease02102011.html; Hospital Choice Cost Sharing, Blue Cross Blue Shield of Mass., http://www.bluecrossma.com/plan-education/medical/hccs/index.html (last visited June 20, 2011).

[47] Such higher out-of-pocket maximums must comply with the requirements set forth in 956 MASS. CODE REGS. 5.03, in which the Massachusetts Health Insurance Connector Authority, pursuant to MASS. GEN. LAWS. c. 111M, § 1, defines minimum creditable coverage.

2. Limited Network Products

Limited network products offer consumers a select, or "limited," set of providers from whom consumers can receive a full range of health care services. The providers included in these limited networks should be more efficient, with high quality performance and lower costs. As a result, limited network products should lower premiums for consumers at the point of enrollment. For example, Fallon Community Health Plan (FCHP), the largest health insurer in central Massachusetts, has successfully offered limited network products for a number of years.[48] Its Direct Care product offers consumers average premium savings of 13 percent compared to its Select Care product, which is itself less expensive than unlimited products that include all Massachusetts providers.[49]

In the design of both tiered and limited network products, it is important to avoid penalizing consumers with higher costs when the consumer is unable to choose a lower-cost, high-quality alternative. This can typically occur in two ways: one, if there is a very rare service (e.g., lung transplants) that is only offered by a few providers in Massachusetts, none of which is a lower-cost option; and two, where the consumer is incapacitated or requires emergency medical attention and does not have the opportunity to exercise choice. Under Hospital Choice Cost-Share, for example, in recognition of the latter situation, the lower copayment always applies to emergency inpatient care.

Notwithstanding important innovations like FCHP's limited network products, there have been historic impediments to the development of tiered and limited network products that would assist consumers in capitalizing on the potential for cost savings by shifting care to lower-cost providers. These impediments include restrictive product participation clauses in health insurer-provider contracts that inhibit innovation in tiered and limited network products, as well as limitations in the use of transparent and uniform cost and quality metrics to inform the design of these products. Chapter 288 of the Acts of 2010 addressed both of these concerns and has prompted more innovative products such as BCBS's Hospital Choice Cost-Share.[50] If consumers demand these products, insurers are in a better position more than ever before to respond to that interest, and to pass on the savings achieved by shifting care to more efficient providers.

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[48] FCHP has had significant enrollment in its limited network products and has been successful in encouraging members to use high-value providers, with the result that it has been able to lower its medical trend in key markets and, in turn, leverage these cost savings to attract new membership. As another example, the state's Group Insurance Commission ("GIC") recently completed an initiative to encourage greater enrollment in limited network products, which is expected to save the Commonwealth millions of dollars in 2011. According to the GIC, more than 31 percent of state employees are now enrolled in lower cost limited network products. *See* Exec. Off. for Admin. & Fin., *State Employee Re-enrollment and Limited Network Plans Success*, http://www.mass.gov/?pageID=afmodulechunk&L=4&L0=Home&L1=Insurance+%26+Retirement&L2=Oversight+Agencies&L3=Group+Insurance+Commission&sid=Eoaf&b=terminalcontent&f=gic_news_state_emp_reenrollment_success&csid=Eoaf (last visited June 20, 2011).

[49] In the small group market, geographic rating adjustments are limited to seven large regions, despite important geographical differences in use of high-cost versus high-value providers *within* a region. This seven-region approach may unintentionally restrict the development of limited network products in the small group market – a market in which employers have voiced the need for multiple options to address significant premium increases.

[50] *See* MASS. GEN. LAWS. c. 176J, § 11(a) (requiring health insurers to offer small group consumers more tiered or limited network options).

E. PPO health plans, unlike HMO health plans, create significant impediments for providers to coordinate patient care because PPO plans are not designed around primary care providers who have the information and authority necessary to coordinate the provision of health care effectively.

As discussed in greater detail in Section F below, we found that high-quality, coordinated care requires care management infrastructure and aligned provider responsibility (but not necessarily other provider attributes such as a hospital-based model or overall size). Aligning provider responsibility begins with identifying a provider with the information and authority necessary to coordinate each patient's care. Providers and researchers alike agree that this is why PCPs have a central role to play in improving care coordination.[51] Because PPO plans do not require any oversight of where or how patients receive care through a responsible PCP, but instead allow them to seek care from any network provider, they are inconsistent with structured approaches to improving care coordination. For the same reasons, PPO plans are equally at tension with global payments, which are premised on assigning a negotiated budget and responsibility for managing care under the budget to one provider organization. Health insurers and providers have not been able to integrate global payments with PPO plans, and over 40% of the commercial membership at the three major health insurers is enrolled in such plans.[52]

We found many examples of the fundamental tension between PPO plans and effective care management. As a starting point, providers have limited ability to coordinate the quality, or manage the costs, of patient care when there is no structure for patients to get referrals or for important information about patient care to flow back to a designated PCP.[53] Similarly, many providers reported to us the importance of investing in a common care infrastructure to coordinate the care of patients seen by their group. When a patient seeks care from a changing constellation of unrelated providers, it is unlikely the patient will benefit from such a common care infrastructure. A referral system, like that required in HMO plans, helps keep at least one provider informed of and in a better position to manage all the care a patient receives.

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[51] *See, e.g.*, DHCFP Hearing on Health Care Cost Trends (2011) (written testimony of Acton Medical Associates, Response to Exh. B, Q. 4) (recommends "[r]equiring patients to choose a primary care provider and empowering the PCP to manage their care"), *available at* http://www.mass.gov/?pageID=eohhs2terminal&L=7&L0=Home&L1=Researcher&L2=Physical+Health+and+Treatment&L3=Health+Care+Delivery+System&L4=Health+Care+Cost+Trends&L5=2011+Health+Care+Cost+Trends&L6=2011+Health+Care+Cost+Trends+Witness+Testimony&sid=Eeohhs2&b=terminalcontent&f=dhcfp_researcher_cost_trends_2011_cost_trends_letters_and_testimony&csid=Eeohhs2; Diane R. Rittenhouse et al., *Primary Care and Accountable Care – Two Essential Elements of Delivery System Reform,* 361(24) NEW ENG. J. MED. 2301, 2301-03 (Dec. 10, 2009).

[52] The tension between PPO plans and improving care coordination is not resolved by attribution models that health insurers have developed to "attribute" a PCP to PPO patients (usually by reviewing whether there is a PCP whom the patient has seen recently). Even where a PCP can be identified, due to the design of PPO plans, that provider still lacks the authority and patient care information that are key to improving care coordination.

[53] *See, e.g.*, DHCFP Hearing on Health Care Cost Trends (2011) (written testimony of Atrius Health at 5) (citing as a factor limiting Atrius's ability to contain health care costs "PPO products that inherently do not promote coordination of care, allow for the most cost-effective building of an infrastructure, or provide us with sufficient information to evaluate total medical experience for these patients (i.e. we do not receive claims data for PPO members)"), *available at* http://www.mass.gov/dhcfp/costtrends.

An overview of referral patterns[54] for HMO patients highlights the significant challenges of managing where patients receive their care – and hence the quality and cost of that care – even for patients enrolled in plans with designated primary care providers. Referral patterns are particularly significant for globally paid providers, who are financially at risk for the cost and quality of care delivered to their patients by other providers. PCPs typically have providers whom they prefer to refer their patients to when specialty, hospital, or other care is needed. This is often to capitalize on a common care infrastructure, or to take advantage of high quality, efficient providers, so the PCP is able to stay within the global budget set for the patient. Particularly for provider systems where hospitals and physicians are jointly at risk for the quality and cost of patients' care, and have worked together to coordinate and improve care, we would expect to see physicians referring to their partner hospital more often. However, for the two physician-hospital provider systems in Massachusetts with the most years of experience managing referrals for HMO/POS patients under a global payment, one health insurer's 2009 referral data shows that only 35-45% of adult inpatient care, as measured by revenue, goes to the partner hospital. That percentage can be even lower for providers with little to no experience managing where their patients receive specialist/hospital care, or under plan designs that do not require referrals.[55] The challenges of directing patient care highlight the importance of patients, providers, and health insurers working in concert with each other. Without a primary care provider, the function of care coordination is left in large measure to the patient and the health insurer.

For PPO patients, providers also lack key clinical and financial information that they now typically receive from health insurers for some or all of their HMO/POS patients. This data, based on claims information, shows the provider all of the care a patient has received, from which providers, and at what price. Private vendors now offer sophisticated systems built on this claims data that can answer a variety of care questions that allow physicians to better manage the cost and quality of their patients' care.[56] Providers have consistently cited this type of detailed clinical and financial data as an important tool for improving care coordination (*see* Section II(F)(Lesson 3)).

As a result, while it has been reported that 90% of Massachusetts residents have a "personal health care provider,"[57] because of the prevalence of PPO plans, the personal health care providers for many residents are unable to coordinate care like a primary care provider. The popularity of PPO plans remains a significant challenge to structured attempts to improve the coordination of care, which begin with designating responsibility for managing a patient's care to one provider. This is especially true as the proportion of the commercial market enrolled in PPO

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[54] Patterns or trends in where patients are being referred for care that their PCP does not provide (e.g., specialist care or hospital care).

[55] For example, for "open access" services like obstetric and gynecology, where no referrals are necessary even for HMO/POS patients, we found that as little as 25-30% of the revenue for maternity care goes to the partner hospital of a provider group that has been globally paid for many years.

[56] These claims system databases can provide physicians with answers to questions such as: (1) Out of a recommended basket of procedures for a patient with a certain illness, how many have been completed? (2) What is a physician's rate of compliance with clinical protocols, and how does his compliance rate compare to his peers? (3) How much has been spent on a patient's care in a given year, and how much of that cost is attributable to hospital stays, physician visits, pharmacy expenses, or other components of care?

[57] DHCFP KEY INDICATORS, *supra* note 25, at 12.

is expanding rather than contracting: over the last five years, the proportion of patients enrolled in PPO at the three major health insurers has climbed steadily. A key question to answer in any informed discussion of Accountable Care Organizations ("ACO"s) is how to balance the competing goals of consumer choice and effective clinical and financial management of care.

In addition to the popularity of PPO plans, efforts to improve care coordination must address whether there are sufficient primary care providers in Massachusetts.[58] According to the Massachusetts Medical Society, access to primary care physicians is becoming more restricted, as more than half of primary care practices – 51% of internists and 53% of family physicians – are not accepting new patients.[59] This is important information that policymakers should carefully consider, along with two additional observations. First, the study by the Massachusetts Medical Society focused on access to physician internists and family physicians, and did not examine other sources of primary care, such as nurse practitioners and obstetricians/ gynecologists, or perhaps providers who specialize in the management of certain chronic conditions. Second, 90% of residents already report having a "personal health care provider." We should encourage the use of providers who can effectively coordinate care; rather than disrupting an established patient-provider relationship, we should start by providing the necessary primary care tools to patients' personal health care providers.

F. Health care provider organizations designed around primary care can coordinate care effectively (1) through a variety of organizational models, (2) provided they have appropriate data and resources, and (3) while global payments may encourage care coordination, they pose significant challenges.

There is heightened interest in the concept of ACOs as a way to transform health care delivery at the state and national level.[60] An ACO is generally defined as a provider organization with a strong base of primary care that is responsible for quality and costs across the full continuum of care for a population of patients.[61] While literature on the topic abounds, beyond these basic principles, experts and policymakers have different definitions around what an ACO should look like and how it should function in the marketplace. How should an ACO be organized and how big should it be? Should it be a physician-only organization or should it include a hospital or other providers? How should an ACO bear risk?

In response to ongoing discussions about delivery system and payment reform, we sought to address some of these questions through an in-depth review of Massachusetts provider groups.

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[58] Providers who specialize in the management of chronic conditions can also be important sources of care coordination for patients with particular chronic conditions.

[59] MASS. MED. SOC'Y, 2011 PATIENT ACCESS TO HEALTH CARE STUDY: A SURVEY OF MASSACHUSETTS PHYSICIANS' OFFICES, 5 (2011), *available at* http://www.massmed.org/AM/Template.cfm?Section=News_and_Publications2&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=54336.

[60] *See, e.g.*, PAYMENT REFORM COMMISSION RECOMMENDATIONS, *supra* note 19, at 11; HEALTH CARE QUALITY AND COST COUNCIL, ROADMAP TO COST CONTAINMENT, MASSACHUSETTS HEALTH CARE QUALITY AND COST COUNCIL FINAL REPORT (Oct. 21, 2009), *available at* http://www.mass.gov/lhqcc/docs/roadmap_to_cost_containment_nov-2009.pdf.

[61] Mark McClellan et al., *A National Strategy to Put Accountable Care Into Practice,* 29(5) HEALTH AFFAIRS 982, 982-90 (2010); Stephen Shortell & Lawrence Casalino, *Implementing Qualifications Criteria and Technical Assistance for Accountable Care Organizations*, 303(17) JAMA 1747 (May 2010); DEVERS, *supra* note 23.

We examined how different organizations deliver quality, efficient, and coordinated patient care, and the challenges different providers face. Our purpose was not to determine or recommend a "best model" for the delivery of care, to showcase specific providers or even to define an ACO. Rather, we sought to glean lessons for how best to improve the delivery system to provide coordinated patient care by looking at the experience and performance of an array of provider organizations.

Massachusetts has a number of organized provider groups, all of which provide high quality care. We selected 16 provider groups to profile, each with different organizational structures and characteristics across different markets: Acton Medical Associates, Atrius, Baycare Health Partners, Beth Israel Deaconess Physicians Organization, Central Massachusetts Independent Physicians Association, Fallon Clinic, Lahey Clinic, Lawrence General Independent Physicians Association, Lowell General Physician Hospital Organization, Northeast Health Systems Physician Hospital Organization, New England Quality Care Alliance, Partners Healthcare System, Riverbend Medical Group, Signature Brockton, South Shore Hospital Physician Hospital Organization, and Steward Health Network Services.

We analyzed the characteristics and performance of these 16 organizations in several different ways. We examined how the groups are organized, legally and clinically; how they contract with health insurers; how they provide care to patients; structural features, such as their size and scope of services, whether the group is hospital- or physician-based, and how individual physicians are compensated; and their organizational infrastructure and systems to support coordinated care.

We also examined how provider organizations in Massachusetts are paid, focusing particularly how risk-based payment methods impact different types of organizations. To expand on this analysis of risk, in addition to the 16 groups, we obtained detailed information from health insurers and studied the experience of other Massachusetts provider groups under risk contracts.

Although we found significant clinical and structural variation among the 16 provider organizations, our examination did not find that any one type of provider organization performed consistently better on quality and other measures of performance than any other. Rather, the features that providers themselves say contribute to their success – the organization's approach to care, culture, medical management programs or other systems to engage physicians in clinically coordinated care – were *independent* of organizational structure. At the same time, we learned that different organizational models and payment methodologies present particular challenges and advantages that provide important lessons as we move forward on cost containment and delivery system reform. Through our review of Massachusetts provider organizations, we found three key lessons for the Commonwealth to consider as we strive to improve the effectiveness of our health care delivery system:

LESSON 1: A variety of provider organizational models can deliver high-quality, coordinated care.

We learned that a variety of provider organizations can successfully deliver high quality, efficient care. Based on our review of performance measures and provider attributes, and interviews with providers, health insurers, and market experts, we found that no single type of provider organization performs consistently better on measures of quality or efficiency and no single type of provider organization is better positioned to deliver coordinated patient care. We have not identified a preferred ACO provider model for the Massachusetts health care market.

No single provider model is consistently associated with better performing physicians. Like most Massachusetts providers, each of our select provider groups performed well, on the standard HEDIS physician quality measure set.[62] Similarly, we did not find one provider model to provide care more efficiently. No single organizational structure is associated with consistently low TME. Physician-only practices we reviewed had among the highest and lowest TME in one health insurer's network; likewise, the TME of hospital-based groups was neither consistently high nor low. TME for small and large groups was similarly variable.[63]

Whether large or small, a physician hospital organization ("PHO"), an independent practice association ("IPA"), a group practice, a physician network, or a corporately integrated health system, each of the groups reviewed appeared to have the capacity to deliver coordinated patient care. Each of the groups demonstrated some indicia of clinical integration across its organization although each approached clinical integration in different ways tailored to their organizational structure and each was in different stages of development. Each had a mix of features and tools that are widely recognized to be important in delivering coordinated care: leadership, infrastructure, data management, systems to guide physician practice and performance, and medical management programs.[64]

a. Patient care coordination requires care management infrastructure.

Provider organizations report that the development of systems to provide coordinated care requires significant resources, including money, time and effort.[65] Provider estimates of the costs of care coordination vary, in part because of the difficulties of identifying costs that are

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[62] Using an average of all available 2010 HEDIS measures, each of the 16 groups scored above the national average. For purposes of this analysis, we averaged physician group HEDIS scores, normalized to the Massachusetts state average. For large physician organizations comprising multiple sub-groups, we used an unweighted average of sub-group scores to arrive at an overall group score.

[63] *See* data on relative health status adjusted TME by health insurer in Section II(B) above.

[64] *See, e.g.,* HAROLD D. MILLER, CENTER FOR HEALTH CARE QUALITY & PAYMENT REFORM, HOW TO CREATE ACCOUNTABLE CARE ORGANIZATIONS 8-10 (Sept. 2009), *available at* http://www.chqpr.org/downloads/HowtoCreateAccountableCareOrganizations.pdf.

[65] The Government Accountability Office (GAO) reports that the startup investment expenditures in the Medicare Physician Group Practice Demonstration varied between $82,573 and $917,398 and the first year total operating expenditures varied from $436,386 to $2,922,820. GAO, MEDICARE PHYSICIAN PAYMENT, CARE COORDINATION PROGRAMS USED IN DEMONSTRATION SHOW PROMISE, BUT WIDER USE OF PAYMENT APPROACH MAY BE LIMITED (Feb. 2008), *available at* http://www.gao.gov/new.items/d0865.pdf. In its release of proposed ACO regulations, CMS estimates the average startup investment and first year operating expenses for the Shared Savings Program to be $1,755,251. 76 Fed. Reg.,19,638-39 (Apr. 7, 2011).

built into clinical and operational budgets. Two large physician networks estimate that the additional cost to provide care management and coordination for commercial patients is approximately $10 PMPM. A large multi-specialty practice estimates its care management infrastructure costs $8-$12 PMPM for each managed care patient. However, that amount would more than double if the costs from the practice's electronic medical records ("EMR") system and clinical staff resources supporting coordination of care were included.[66]

The complexity and related costs of care management infrastructure vary widely based in significant measure on the relative size and complexity of the provider organization. One large group with multiple physician organizations has a range of medical management programs that, with only a few exceptions, varies from one physician group to the next in the same organization. Smaller groups with co-located PCPs and specialists may rely on unified EMR and regular meetings. Provider organizations working to implement consistent programs across large networks of independent practices necessarily require more investment in data management and communication. The cost of such care coordination infrastructure may be paid directly by the health insurer, or may also be paid by the organization from amounts paid in global risk contracts or through fee-for-service revenue.[67] In the course of our examination, we found that health insurers support care coordination through various infrastructure fees that can be as high as $20 PMPM.

In addition to administrative infrastructure to support contracting, provider relations and similar functions, many provider organizations we studied have care management infrastructure to promote coordinated patient care.[68] Provider organizations told us that delivery of coordinated patient care requires infrastructure to support three main, inter-related functions: 1) patient care management; 2) physician engagement and quality improvement; and 3) data management. Although the provider organizations generally agreed on the importance of these functions, there was no single approach or best practice consistent throughout the organizations. We found providers made limited attempts to analyze the return on investment of medical management programs.

b. Patient care coordination can be performed by both physician-only and hospital-based provider organizations.

Both physician-based and hospital-based organizations can be successful in providing quality, efficient, coordinated care. While acknowledging that physician-hospital relationships

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[66] *See* DHCFP Hearing on Health Care Cost Trends (2011) (written testimony of Atrius Health at 20-21). Compare DHCFP Hearing on Health Care Cost Trends (2011) (written testimony of Acton Medical Associates, Exh. C) (estimating care coordination costs of $26.67 PMPM (total less cost of stop-loss insurance, insurance broker, and financial analyst)).

[67] Such payments include infrastructure fees, dedicated EMR payments, medical management fees, medical director stipends, one-time grants from health insurers, or other sources to support specific quality or care management initiatives, such as Patient Centered Medical Home pilots. Some provider organizations support a small portion of infrastructure costs through dues or assessments from physician members.

[68] Operational budgets for the 16 provider organizations vary. For example, a small IPA has a budget of $200,000 and 3 full time equivalents ("FTEs"), while a larger physician network (with about seven times more BCBS patients in 2009) has a budget of $9M and 50 FTEs. One large multi-specialty practice spends 9% of its total operating expenses of $1.25M in administrative infrastructure ($62.4M) and 6% in central clinical support ($43.3M).

are complex and can vary considerably from one organization to the next and by health insurer, for purposes of our analysis, we considered whether the provider organizations we studied were generally physician-based or hospital-based. Physician-based organizations include primary care only physician practices as well as large multi-specialty group practices or IPAs. Hospital-based groups include corporately integrated health systems as well as PHOs, and physician networks with hospital affiliations or relationships, where the physician group contracts jointly with a hospital or has hospital ownership.

Physician-only or physician-hospital organizations can both successfully deliver high quality, efficient, coordinated care in Massachusetts. For example, we examined a multi-specialty practice and a PHO, both of which have had risk contracts with multiple health insurers for a number of years and both of which provide excellent clinical care. The PHO shares a risk pool with the hospital. In contrast, the multi-specialty practice's risk agreements do not include hospitals. Each maintains programs to support coordinated care, such as medical management, nurse care managers, and programs that manage care across hospital and other care settings. While the PHO physicians have a direct relationship with the hospital, the practice group refers patients to a number of preferred hospitals with whom it has clinical relationships.[69]

We found advantages and disadvantages to each model.[70] Physician-based organizations can be more flexible in response to changes in the quality or cost of their hospital partners. For example, in a recent, highly publicized move, a large group chose to transition a greater portion of its hospital referrals from one tertiary hospital to another to take advantage of cost savings for similarly high quality services and greater opportunities for clinical collaboration. This required the transition of infrastructure and care management programs and was disruptive of some established clinical relationships. Yet, based on the differences in cost per admission for each hospital and related outpatient costs, the group estimates the cost savings of this decision to be significant.

On the other hand, hospital-based models maintain a more or less permanent relationship between the physicians and the hospitals. Although this may decrease flexibility in clinical relationships, hospital-based models may allow for enhanced coordination of patient care and supportive resources. PHOs in particular, where the physicians are aligned with a single hospital, have a built-in clinical partner. In contrast, some independent physician groups report difficulties in establishing relationships with hospitals with whom they do not contract on an ongoing basis. A hospital may be able to support the physician group's care management infrastructure or provide a financial back up in risk contracts.

Risk contracts can highlight the sometimes conflicting incentives of physician groups and hospitals. Hospital-based models frequently involve a business model that encourages driving care to the hospital, especially where services offered by the hospital have high cost margins.

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[69] Likewise, IPAs may be closely aligned with and maintain close clinical relationships with one, or sometimes more than one, hospital.

[70] For other studies on the complexities of physician-hospital alignment, *see, e.g.*, Lawton Robert Burns & Ralph W. Muller, *Hospital-Physician Collaboration: Landscape of Economic Integration and Impact on Clinical Integration*, 86(3) The Milbank Quarterly, 375-434 (Sep. 2008); Lawton R. Burns & Mark V. Pauly, *Integrated Delivery Networks: A Detour on the Road to Integrated Health Care?*, 21(4) HEALTH AFFAIRS 128-43 (2002).

One major goal of risk contracts is to reduce the use of high-cost services, which tends to include hospital admissions and outpatient procedures. Physician success in managing care to prevent admissions and avoid readmissions will result in lower hospital volume and poses a financial challenge to hospitals.[71] Provider organizations we studied approached this tension in a variety of ways. Providers structure risk arrangements and develop other financial arrangements to ensure that hospitals remain viable in the face of decreased volume. This can include allocating surplus payments from risk contracts to the hospital to ensure it shares in savings and developing incentives for physicians to direct patients to the hospital.

c. Patient care coordination does not require a larger or corporately-integrated provider organization.

In terms of quality, efficiency and care coordination, bigger organizations (whether in size or scope of services) do not always perform better. Based on an analysis of a subset of HEDIS measures that focus on care coordination performance, we found no evidence that larger groups (as measured by member months) perform better than other groups. We also found no evidence that *corporately* integrated health systems perform better than other groups.[72]

We were unable to identify any single, publicly available quality measure that measures the ability of a provider or provider group to successfully coordinate care. However, with expert assistance, we did identify several HEDIS process measures that may reflect the existence of care coordination because they measure performance on conditions for which care must be provided over a period of time and/or across care settings. This subset of HEDIS process measures includes measures of diagnostic and preventive care, depression, medication management, diabetes care, and women's health. We used these measures to compare the performance of 16 provider organizations.[73] Our analysis did not find evidence of a single optimal scale for delivering quality, coordinated patient care.[74]

The 16 provider organizations we examined range in size from 23 primary care physicians, a multi-specialty group practice with 811 physicians, a physician network with approximately 1500 physicians to an integrated health system with about 5400 physicians in hospital and community practices. Because of the difficulties of comparing numbers of full-time equivalent physicians on a systematic basis across provider groups, we also looked at size of the

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[71] *See* Robert Kocher & Nikhil R. Sahni, *Physicians versus Hospitals as Leaders of Accountable Care Organizations*, 363(27) NEW ENG. J. MED. 2579-82 (Dec. 30, 2010).

[72] Singer, *supra* note 13 (distinguishing between integrated delivery organizations and integrated patient care); *see also* Linda Dynan et al., *Assessing the Extent of Integration Achieved through Physician-Hospital Arrangements*, 43(3) J. HEALTHCARE MGMT. 242 (May/June 1998) (finding that differences in degrees of integration did not always conform with expectations that centralized ownership implied more successful integration; ownership may not be essential to achieving tight integration with physicians).

[73] To compare group performance on these care coordination measures, we averaged the scores of each group, normalized to the Massachusetts average, on the select measures. As with the HEDIS analysis described in footnote 62 above, for large provider organizations comprising multiple provider groups, we used an unweighted average of sub-groups to arrive at an overall group average.

[74] *See* Mark W. Friedberg et al., *Does Affiliation of Physician Groups with One Another Produce Higher Quality Primary Care?*, 22(10) J.GEN. INTERNAL MED. 1385-92 (2007) (weak and inconsistent relationship between physician group size and performance on HEDIS measures among Massachusetts primary care physicians practicing in groups of three or more; physicians associated with networks associated with higher scores).

provider organization in terms of HMO member months. Using BCBS 2009 member months for example, the largest provider organization in our study cohort had almost 30 times the number of member months as the smallest and 2.5 times the number of member months as the next largest operating in the same market.

Scope of services also varied markedly among the groups we profiled. One group is primary-care only, several are multi-specialty practices with additional services such as on-site pharmacy or ancillary lab and imaging services. Hospital-based systems include an even greater scope of services beyond physician services and acute-care facilities, including sub-acute facilities (rehabilitation or skilled nursing facilities) and home care.

We examined two integrated health systems, where large physician networks are corporately and/or contractually integrated with multi-hospital systems. When we compared corporately integrated organizations to other providers, we found that corporately integrated groups do not necessarily have more effective tools to support coordinated patient care. For example, one IPA comprising 98 individual physician practices was able to achieve 100% EMR implementation for its PCPs by making it a requirement of physician participation in the IPA.

Scale presents both advantages and disadvantages to effective clinical practice.[75] Larger organizations have the benefit of spreading infrastructure and other costs over a larger number of providers and practices, as well as the benefit of spreading risk among a larger population. At the same time, the sheer size of certain organizations necessitates that they build extensive infrastructure to support larger numbers of providers and practices within the provider entity, whether in a group employment model or a network model. In addition to scalable efficiencies, large organizations may offer enhanced patient access with greater physician availability or breadth of specialist expertise in-house.

Smaller organizations often benefit from more communication between providers, a naturally occurring opportunity to develop a team approach and a pervasive practice culture. Physician leadership may have more direct impact in smaller practices. Likewise, individual physicians are more likely to be directly involved in practice decision making, whether clinical or financial. Large practices, particularly where physicians practice in multiple community settings, present considerable challenges in terms of directing care practice, maintaining a shared vision, and promoting rapid transformation. Moreover, even large corporately integrated providers, with a broad scope of services, do not deliver significant portions of the care received by their patients for a variety of reasons.[76]

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[75] LAURA TOLLEN, THE COMMONWEALTH FUND, PHYSICIAN ORGANIZATION IN RELATION TO QUALITY AND EFFICIENCY OF CARE: A SYNTHESIS OF RECENT LITERATURE (Apr. 2008) (summarizing studies of provider scale); Lawrence P. Casalino et al., *Benefits of and Barriers to Large Medical Group Practice in the United States*, 163(16) ARCHIVES OF INTERNAL MED. 1958, 1958-64 (Sept. 8, 2003) (in physician survey, negotiating leverage most often cited benefit to large size; other advantages were ability to create organized processes to proactively improve care; large enough for statistically significant quality analysis; monitor performance and implement clinical protocols).

[76] *See, e.g.*, Section II(E) for a discussion of referral patterns and Section II(F)(Lesson 3)(b)(ii) for a discussion of the types of site of service data available.

Based on our review of the wide variety of organized provider groups in Massachusetts, we found that no one model is better positioned to deliver coordinated patient care. Rather, with appropriate infrastructure and support for primary care, many different models can be successful.

LESSON 2: While bearing financial risk through global payments may encourage coordinated care, it also requires significant investment to develop the capacity to effectively manage risk, which will be more difficult for most providers who practice in small groups and have historically been paid less than larger providers.

a. Bearing risk requires significant expertise and infrastructure, which many providers do not have.

Significant resources and infrastructure are necessary for providers to effectively bear risk.[77] These include developing the financial expertise to understand medical claims trend and support risk contract negotiations, building financial resources to respond to unexpected losses, and investing in catastrophic and sub-catastrophic insurance coverage.[78] Additionally, while we found that providers of many sizes can coordinate care effectively, size is an advantage for the specific purpose of bearing risk. Providers and insurers both note the importance of having adequate patient membership to help balance risk through a larger, more diverse patient risk pool.[79] According to one provider, its strategy to effectively manage risk *begins* with remaining a fee-for-service provider until a large enough membership threshold has been met.[80]

Since capitation was almost completely abandoned in Massachusetts over a decade ago, most providers do not have experience or the infrastructure to address the financial and clinical challenges of managing a fixed sum to provide care for their patients. Out of forty or so large provider groups and hundreds of small or solo practices in Massachusetts, four have experience being paid globally by the three major health insurers for five or more years: Atrius Health, Health Alliance with Physicians, Mount Auburn Cambridge IPA, and South Shore PHO. An additional six have been paid globally by at least one major health insurer for at least two years: Acton Medical Associates, Cape Cod Physicians, Central Massachusetts IPA, Fallon Clinic,

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[77] *See, e.g.*, DHCFP Hearing on Health Care Cost Trends (2011) (written testimony of Fallon Clinic at 13) ("It is important to emphasize that transitioning to a new [risk-based] reimbursement model is, in the initial stages, a costly venture requiring investments in the infrastructure to manage and monitor service delivery. In Fallon Clinic's case, our ability to successfully operate within a risk environment is a result of multiple millions of dollars in investments as noted in previous testimony. It is vitally important that the Commonwealth take into account these required investments when determining the benefits of alternative payment systems and the new costs that will become evident from this transition."), *available at* http://www.mass.gov/dhcfp/costtrends.

[78] *See, e.g.*, DHCFP Hearing on Health Care Cost Trends (2011) (written testimony of Acton Medical Associates, Response to Exh. C, Q. 2; written testimony of Atrius Health at 19-20; written testimony of Fallon Clinic at 14 (noting Fallon Clinic has not entered into any unlimited downside risk contracts because it lacks the reserves to do so); written testimony of Mount Auburn Cambridge IPA at 12), *available at* http://www.mass.gov/dhcfp/costtrends.

[79] *See, e.g.*, DHCFP Hearing on Health Care Cost Trends (2011) (written testimony of Atrius Health at 19), *available at* http://www.mass.gov/dhcfp/costtrends; BLUE CROSS BLUE SHIELD OF MASS., THE ALTERNATIVE QUALITY CONTRACT 5 (May 2010).

[80] DHCFP Hearing on Health Care Cost Trends (2011) (written testimony of Fallon Clinic at 14), *available at* http://www.mass.gov/dhcfp/costtrends.

Primary Care LLC, and Sturdy.[81] Today, even after the launch of the AQC, less than one quarter of commercial patients in Massachusetts have their care reimbursed through global payments.

Among the providers who have experience with global payments, few have any experience managing the risks of a potential deficit. This is in part because global payments have usually been set at a high enough level that there is no serious likelihood the provider will run a deficit. As shown in Section II(B), many globally paid providers are well reimbursed relative to their peers, leading to higher, not lower TME. There are historic reasons for this. As we heard from one major insurer, following the financial distresses of capitation in the 1990s, providers in the insurer's network who remained on fixed budgets did so not necessarily because they were the most efficient, but because they had the market clout to negotiate generous reimbursement, regardless of the form of payment. It remains to be seen whether providers receiving lower levels of reimbursement will have the experience, resources, and infrastructure necessary to manage risk under more limited budgets. As we saw in the 1990s under capitation, many did not and experienced financial distress, disrupting care for many patients.[82] We should therefore be cautious in citing the recent history of global payments in Massachusetts as an example of provider experience in successfully managing risk.

b. Risk contracts, especially multi-year contracts, continue to expose providers to random insurance risk that they are ill-equipped to bear.

Commercial models for risk contracting in Massachusetts expose providers to random insurance risk because (1) measures of health status are imperfect, (2) negotiation of risk budgets does not take into account other factors relevant to insurance risk beyond health status and (3) while risk contracts contemplate protections against catastrophic cases through individual stop-loss insurance, most do not address aggregate insurance needs other than some limited risk sharing. Providers are ill-equipped to bear these undefined levels of insurance risk that are transferred to them through global payments – levels of risk that insurance companies themselves have not quantified.

Measures of health status are imperfect and so do not fully reflect relative and absolute changes in the morbidity of the patient population cared for by risk providers over time. This means that although insurers and providers apply measures of health status when negotiating a provider's global payment for the following year(s), that measure cannot fully predict all of the changing health needs of the underlying population. Additionally, other factors relevant to the changing cost of patients' care are often absent from the negotiation of risk contracts, including: increases in providers' expenses due to changes in other providers' unit prices, changes in mandated benefits, and new technologies and treatments, including recommendations for screenings or other preventive health initiatives that materially increase short-term costs. All of the above serve to expose providers to financial risk that is not well quantified.

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[81] Some providers have additional experience managing risk payments through public (government-subsidized) health insurance programs. A number of providers we spoke with cited their experience managing risk under Medicare Advantage as relevant to their ability to bear risk under contracts with commercial health insurers.

[82] *See* JAMES C. ROBINSON & EMMA L. DOLAN, INTEGRATED HEALTH CARE ASSOCIATION, ACCOUNTABLE CARE ORGANIZATIONS IN CALIFORNIA: LESSONS FROM THE NATIONAL DEBATE ON DELIVERY SYSTEM REFORM 2 (2010), *available at* http://www.iha.org/pdfs_documents/home/ACO_whitepaper_final.pdf.

While health insurers typically require risk providers to carry individual stop-loss (ISL) insurance as a condition of risk contracts, few providers have budgeted for aggregate insurance loss. For example, most risk providers are not currently protected against the high costs of responding to a serious flu pandemic, in which they would be at financial risk for the unusually large number of unanticipated *sub*-catastrophic cases.

Multi-year risk contracts, which preset the level of risk budgets for multiple years, also put providers at risk for unexpected changes in individual catastrophic losses. While ISL can smooth the cash flow impact of "lightening strikes," if providers must pay an annually determined ISL premium out of multi-year preset budgets, they will in essence be bearing the costs of outlier cases through annually adjusted premiums based on their actual experience (which will deplete an increasing portion of their risk budget over time if their catastrophic cases increase).[83] Alternatively, community rated ISL would force some groups to pay a disproportionate amount for their covered populations out of their pre-set budgets, thus cross-subsidizing the catastrophic cases of other groups. Whether experience or community rated, annually adjusted insurance costs expensed against a multi-year preset budget leaves providers bearing the costs of catastrophic cases over time. The same is true for the function of aggregate stop-loss in multi-year contracts: it can smooth the cash flow impact of a large number of sub-catastrophic cases, but it is the providers with multi-year preset budgets who will bear the insurance risk.

The experience of one risk provider from 2008 to 2009 is a good example of how providers are being exposed to random risk. In 2008, this provider had a large surplus of $26.40 PMPM on a budget of $285. A year later, on the same budget ($284.93), this provider went from 9,841 members to 8,889 and not only lost any surplus, but ran a deficit of $3.52 PMPM. This is an example of the volatility in risk pools that providers are ill-equipped to handle.

In addition to potentially being poorly insured against risk, most providers are not capitalized to withstand insurance risk. For example, providers lack the reserves that insurers are required to maintain.[84] One provider recommends requiring, as a condition to transitioning to full-risk payment arrangements, that the entities required to hold reserves – the health insurers – fund protections against unlimited risk such as individual and aggregate stop loss.[85] Stakeholders and regulators need to carefully consider which entities should bear insurance risk, how a system or systems for bearing insurance risk should be structured, what type of risk based capital and/or solvency requirements providers should meet in order to bear risk, and the incentive global payments create for providers to merge, or "size up," to avoid volatility in the pool of financial risk that is being transferred to them.

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[83] The converse is also true. If a provider has fewer than anticipated outlier cases, it is possible more of its risk budget than anticipated will be available for expenses other than ISL.

[84] *See, e.g.*, 211 MASS. CODE REGS. 20.00 (risk-based capital for insurers); 211 MASS. CODE REGS. 25.00 (risk-based capital for health organizations).

[85] DHCFP Hearing on Health Care Cost Trends (2011) (written testimony of Fallon Clinic at 16), *available at* http://www.mass.gov/dhcfp/costtrends.

c. Risk contracts intended to promote more efficient care do not necessarily align physician compensation to deliver more efficient care.

One goal of paying on a global basis is to redirect system incentives away from volume toward quality and efficiency. However, paying under a risk-based contract alone will not have that result if, for instance, volume based incentives for physicians remain in place. Global payments must be considered in conjunction with the manner in which individual physicians are compensated.

Employment and compensation models vary widely from provider to provider and change frequently. Generally, compensation models fall into one of three categories: staff/salary model, where the individual physicians are paid a fixed salary regardless of how many patients they see or the amount of care given; salary with defined incentives (such as productivity, panel size, performing administrative functions); and net provider revenues or profit and loss. Some organizations employ virtually all of their physicians, while others have both hospital staff physicians (employed by hospital or physician organization) and physicians in privately owned community practices.

Our examination did not find any consistent relationship between the way that physicians are compensated and the TME of the physician organization. One might expect that a fixed salary model reduces incentives for physician overutilization and would be associated with lower TME, but that is not always the case. We found that even a provider that pays physicians salaries without defined productivity incentives does not have lower TME than other providers that pay physicians on a productivity or profit and loss basis. Since many factors contribute to a provider group's TME, including the volume, type and price of physician and hospital services used, this finding suggests that physician compensation models that are designed to encourage physician efficiency may not alone result in lower overall TME.[86]

Further, our examination found that the ways in which provider organizations are paid by health insurers – i.e., fee-for-service or global payments – may not be tied to how physicians themselves are compensated. We found salaried physicians under risk and FFS contracts; and net revenue/profit and loss models under risk and FFS contracts. For example, even in an organization with a group employment model paid on a risk basis for roughly half of its business, physician salaries are largely productivity based.[87]

Alignment of enterprise incentives with individual physician incentives is not automatic. In the providers we studied, we found significant differences in how group level compensation, such as pay-for-performance bonuses or risk settlements, flow from the organization to the

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[86] *See* Robert A. Berenson & Eugene C. Rich, *U.S. Approaches to Physician Payment: The Deconstruction of Primary Care*, 25(6) J. GEN. INTERNAL MED. 613-18 (2010) (although salaries are often viewed as incentive neutral, they are not).

[87] Productivity for this provider is based on physician work Relative Value Units ("RVUs"), a measure developed for the Medicare payment system and widely used in the commercial market to account for the time, technical skill, effort and stress required to provide a service. *See* MEDPAC, PHYSICIAN SERVICES PAYMENT SYSTEM (Oct. 2008), *available at* www.medpac.gov/documents/MedPAC_Payment_Basics_08_Physician.pdf. Compensation models in for other practice groups within this organization are similarly productivity-based (e.g., individual profit and loss, or some form of net collection distribution).

individual physicians. Depending on group organization structure and goals, provider groups have different ways of approaching the natural tensions that arise when considering allocating funds between the entire group or its constituent practice groups or local care organizations, or between primary care physicians and specialists or the physician group and its hospital partner. Due to that complexity and the need to balance multiple interests, many providers report ongoing evaluation of compensation and allocation issues. Several providers report the difficulty of using compensation and funds flow to reward high-quality, efficient care amid market pressures of provider recruitment. While we may not expect global payments to align incentives automatically, we should encourage providers to continue innovation in compensation models, under both risk or non-risk arrangements, that reward quality performance and support PCPs in delivering efficient, coordinated patient care.

LESSON 3: The ability of the market to encourage coordinated care and to measure system-wide performance is hampered by the lack of transparent and reliable information.

Various health care stakeholders believe that care coordination, generated through provider risk payments or otherwise, will result in cost savings.[88] Generally speaking, those cost savings may be generated by: (1) decreasing utilization by eliminating unnecessary care and increasing preventive care or (2) use of lower cost health care providers. In order for providers to influence the cost and quality of care that their patients receive, and for policymakers to measure the success of delivery and/or payment system reform, the system needs actionable data on these issues.

a. Claims data for providers

We found that the best source of information for providers is claims data. Health insurers do not share claims data with providers on a regular basis unless the provider has a global, risk contract with the health insurer. Even when providers are at risk, the health insurers usually only provide them with access to claims data for their commercial fully-insured HMO patients. Similarly, health insurers typically only provide *analysis* of claims data to at risk providers. For example, one health insurer provides ad hoc reporting to at risk providers on utilization, site of service, practice pattern variation, and quality of care. Similar reporting is not provided to providers who are not at risk.

To improve care coordination, providers, whether or not they are at risk, need data that enables them to better manage the cost and quality of the care they provide to their patients. This includes data on commercial and government patients, fully-insured and self-insured patients, and HMO and PPO patients. The all payer claims database, which is being developed by the Division of Health Care Finance and Policy ("DHCFP"), should be a repository of all of these types of claims data. Providers should have access to all claims data for patients with a PCP in

[88] Press Release, Mass. Off. for Admin. & Fin., *Payment Reform Commission Unanimously Supports Move to Global Payment System to Improve Patient Care and Contain Health Care Costs* (July 16, 2009), http://www.mass.gov/?pageID=eohhs2terminal&L=4&L0=Home&L1=Government&L2=Special+Commissions+and+Initiatives&L3=Special+Commission+on+the+Health+Care+Payment+System&sid=Eeohhs2&b=terminalcontent&f=dhcfp_payment_commission_pr_2009_07_16&csid=Eeohhs2.

that provider's group in order to better manage the cost and quality of the care they provide to their own patients. In addition, providers should have access to detailed statistical and de-identified information for all other patients in Massachusetts in order to analyze cost drivers and identify strategies to improve quality and efficiency.

b. Analysis of claims data for providers and policymakers

In addition to detailed claims data, health insurers and providers also review certain types of reporting that aggregate claims data information into more actionable information. These types of reports are typically only available to providers who are at risk, or have some type of contractual provision regarding their performance.

i. Utilization data

It is widely believed that there is a great deal of "overutilization" in the current health care system.[89] This overutilization is attributed to things such as poor coordination between providers (for example, a patient gets two x-rays from two doctors because the doctors do not coordinate to share their results) and poor management of patients (for example, a patient goes to the emergency room for an asthma attack that could have been prevented by adequate care from the PCP). Proponents of care coordination, ACOs, and other similar payment and delivery system reform expect that cost savings will be generated as a result of decreased utilization of unnecessary services.

With expert assistance, we identified utilization measures that are currently being tracked by at least two health insurers that we expect would be affected by the level of provider care coordination: (1) the number of adjusted medical and surgical inpatient facility admissions (care coordination should result in a reduction in these types of inpatient admissions); (2) the ratio of emergency department ("ED") utilization to PCP utilization by payment method (care coordination should result in a reduction of the ratio between ED utilization and PCP utilization); and (3) the ratio of specialty physician ("SCP") utilization to PCP utilization by payment method (care coordination should result in a reduction of the ratio between SCP utilization and PCP utilization). (*See* Section II(B)(1) for a discussion of our analysis of this data.) Additional measures of utilization that are not currently available for most provider organizations may also be useful in determining whether care coordination is having a positive impact on patient care (for example, measures of non-emergency ED use and hospital readmissions). These types of utilization measures should be developed and carefully tracked by health care stakeholders in order to assess the success of delivery system reform.

If more appropriate utilization is a primary goal of payment and delivery system reform, then it is essential that accurate measures of utilization are available. Although our examination found important challenges of the utilization data currently provided by health insurers to providers,[90] we must develop ways to track utilization going forward (1) in order for health care

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[89] *See, e.g.*, Ezekiel J. Emanuel & Victor R. Fuchs, *The Perfect Storm of Overutilization*, 299(23) JAMA 2789, 2791 (June 18, 2008).

[90] For example, utilization is not measured or reported in the same way, is not reported to all providers, and the utilization data is usually not adjusted to reflect the health status of each provider's patient population.

providers to affect utilization patterns, and (2) for policymakers and others to track the success of system reform efforts. Industry participants should strive to create appropriate health status adjusted utilization metrics and to make such data available at the individual provider level.

ii. Site of service data

Health insurers track the location where members in their network receive health care services. Providers and health insurers refer to this information as "leakage," "site of service," or "referral pattern" information. For example, if a patient has a PCP in Provider A, but decides to go to Provider B for a test, Provider A's referral pattern analysis would reflect that the patient obtained care, was referred, or "leaked" outside of Provider A to Provider B. Health insurers often give at risk providers reports that show the volume of patients that go to other providers, with or without corresponding cost information. (*See* footnote 22 and Section II(E) for a discussion of our review of site of service data.)

There are at least two reasons that health insurers, providers, and policy-makers may value information regarding site of service: (1) the total cost of care may be reduced by referring patients to lower cost providers, and (2) care coordination may be improved by keeping patients within a provider organization and, when necessary to refer outside of that organization for specialty services, to only refer patients to providers with whom the referring provider has a strong clinical relationship.

Health insurers and providers alike have told us that reducing costs by referring patients to lower cost providers is the "low hanging fruit" of cost savings. However, health insurers provided limited data on patient referral patterns (typically, this information is only shared with providers who are at risk), and even less data on the cost of care at different provider sites. Providers and consumers alike should have access to transparent, accurate information that enables them to shift patient volume to high quality, lower cost sites of care.

iii. Practice pattern variation data

Increased care coordination may result in decreased practice pattern variation. Practice pattern variation is the differences in the manner in which health care providers diagnose and treat patients with similar conditions. As providers implement evidence-based clinical practice guidelines, electronic decision support, physician performance reporting, and other care coordination tools, variation in practice patterns within provider organizations should be reduced. A reduction in practice pattern variation may translate into cost savings by reducing utilization.

We examined practice pattern variation data currently available to health care providers from health insurers in Massachusetts. Most health insurers do not provide standardized practice pattern variation information to providers in their networks. Two health insurers do limited practice pattern variation analysis for a subset of providers in their network. Practice pattern variation analysis should be standardized and available to all providers. In addition, where possible, providers should use evidence based practice guidelines to determine what the

"appropriate" care is, as opposed to being limited to identifying outliers against a peer or network average.

iv. Quality

Ideally, coordinated care should result in better management of chronically ill patients over time, better collaboration between providers who are caring for a patient at the same time, and better transitions of care across health care providers and facilities.[91]

As described above in II(F)(Lesson One), we reviewed publicly available measures of physician quality performance to identify metrics that might serve as a foundation for measuring whether or not care coordination is taking place.[92] These measures include HEDIS process measures associated with diagnostic and preventive care, depression, medication management, diabetes care, and women's health. We selected these measures because they represent conditions for which care must be provided over a period of time and/or across different physicians and facilities.

Although these HEDIS process measures represent a good starting place, stakeholders must work to develop better quality measures associated with care coordination. An ideal analysis of the effectiveness of coordinated health care would include information about the long-term results of care for patients. For example, long-term outcomes such as avoidance of complications, hospitalization, debility, and death, along with providing excellent patient experiences and low turnover of patients would be markers of well-coordinated care. Such information is not available outside research settings at present.

III. Conclusion and Recommendations

It is essential that businesses and consumers be engaged in efforts to promote a value-based health care market. Providers cannot coordinate care without the alignment of interests of consumers, purchasing employers, and health insurers. A shift of payment methodology by itself is not the panacea to controlling costs.

We face a unique opportunity and a shared responsibility to build upon the strengths of our health care system. The need for system reform and improvement has been recognized by Governor Patrick, legislative leaders, consumer groups, insurers, hospitals, health care providers, employers, and leading business associations. Without the active participation of all these parties, the goal of cost containment is unlikely to be attained or sustained.

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[91] *See. e.g.*, ANTHONY SHIH ET AL., THE COMMONWEALTH FUND, ORGANIZING THE U.S. HEALTH CARE DELIVERY SYSTEM FOR HIGH PERFORMANCE 5 (Aug. 2008), *available at* http://www.commonwealthfund.org/usr_doc/Shih_organizingushltcaredeliverysys_1155.pdf.

[92] Our review was limited to publicly available measures of provider quality. Other non-public measures may also be helpful in assessing care coordination.

Recommendations

There is no single or easy solution to the market dysfunction and inequities in our health care system. The wide variation in provider payments and the significant pace of market consolidations demonstrate the need for immediate action to restrict, and reverse, further distortion of the competitive market.

Payment reform, such as the global payment methodology recommended by the Special Commission on the Health Care Payment System, should result in better coordination of care. But, our examination shows that a shift to global payment will not meet that promise unless we address foundational questions of how best to improve market function and patient care.

The health care market, like any competitive market, must be responsive to the purchaser – employers and consumers – who must have an incentive and the information necessary to make more efficient and effective use of health care. We must change how health coverage is sold to maintain pooling of the risk associated with health conditions and accidents, but eliminate pooling of the costs that result from inefficient use of health care.

We must give consumers increased options and incentives to make value-based purchasing decisions through tiered and limited network products that do not penalize necessary and appropriate use of health care, but do make consumers more responsible for differences in cost when they elect a more expensive provider. A value-based market approach should help address our finding that there are wide price variations, and our finding that total medical spending is higher for the care of health plan members with higher income. We should encourage health plan designs that promote prudent purchasing decisions through tiered and limited networks, rather than high deductibles that pose greater barriers to low income residents even if they use care prudently.

The competitive benefits of tiered and limited network products, however, are unlikely to counteract, on their own, the historic price disparities that threaten many health care providers. During this time of market transition, we recommend at least setting temporary statutory restrictions on how much prices may vary for comparable services. Such statutory restrictions will moderate price distortions, without price setting, and serve as a stop-gap until the corrective effects of tiered and limited network products can improve market function.

There are significant opportunities for providers and health insurers to improve care coordination. Care coordination functions best when patients, providers, and insurers agree on an approach to improving care and work in concert with one another. Efforts to move the system toward payment reform depend upon, and are secondary to, better engaging consumers in health care designed around primary care. To encourage consumers to elect primary care, we must improve the effectiveness of primary care in the Commonwealth. This includes improving funding for primary care and ensuring primary care providers have the tools needed to coordinate patient care effectively.

Based on our review and analysis, and with the twin goals of improving market function and encouraging care coordination in mind, we recommend the following:

1. Promote tiered and limited network products to increase value-based purchasing decisions.

2. Reduce health care price distortions through temporary statutory restrictions until tiered and limited network products and commercial market transparency can improve market function.

3. Encourage consumers to select a primary care provider who can assist consumers in coordinating care based on each consumer's needs and best interests.

4. Promote coordination of patient care through primary care providers by recognizing the need to improve funding of care coordination, including the infrastructure necessary to coordinate care, and by giving providers timely access to relevant patient data regardless of their size or payment methodology.

5. Consider steps to improve the use of the all payer claims database ("APCD") by: (i) developing reports for providers and the public to guide development of patient care coordination improvements and system accountability, and (ii) increasing the standardization of claim level submissions by reducing differences in how payers report payment level information.

6. Develop appropriate regulations, solvency standards, and oversight for providers who contract to manage the risk of insured and self-insured populations.

The Office of the Attorney General looks forward to collaborating with the Patrick Administration, Legislature, policy makers, insurers, hospitals, all other health care providers, businesses, municipalities, and consumers in promoting a value-based health care market that controls future health care cost growth while maintaining quality and access. We will strive to illuminate facts about the Massachusetts health care market that should be considered as those efforts proceed.

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