COMMONWEALTH OF MASSACHUSETTS
HEALTH POLICY COMMISSION

2015 COST TRENDS REPORT

Cost Trends Report: Executive Summary

Cost Trends Report: Recommendations

Special Report on Provider Price Variation: Executive Summary

Cost Trends Report
Executive Summary

Consistent with the statutory mandate of the Health Policy Commission (HPC), this 2015 Cost Trends Report presents an overview of healthcare spending and delivery in Massachusetts, opportunities to improve quality and efficiency, progress in key areas, and recommendations for strategies to increase quality and efficiency in the Commonwealth.

Past HPC reports have identified four areas of opportunity: fostering a value-based market; promoting an efficient, high-quality healthcare delivery system; advancing alternative payment methods (APMs); and enhancing transparency and data availability. The HPC continues to emphasize these four areas in its analysis and recommendations.

This Executive Summary presents a concise overview of the findings and recommendations detailed in this report.

FINDINGS

TRENDS IN SPENDING AND CARE DELIVERY

Overview of trends in spending

- Between 2005 and 2014, increases in health insurance premiums have outpaced income gains, consuming more than 40 percent of family income growth over the past nine years.
- Massachusetts' 4.8 percent growth in health care spending in 2014 exceeded the 3.6 percent spending benchmark, largely because of growth in MassHealth spending (driven by enrollment growth) and spending on prescription drugs across all market sectors.
- Despite high growth in prescription drug spending, total per-capita spending growth was under the benchmark in all major market segments, including MassHealth.

Trends in commercial spending

- Continued low rates of growth in commercial spending have narrowed the family premium gap between Massachusetts and the U.S. This gap was $2,000 in 2011 and $1,000 in 2014.
- Hospital and physician commercial spending each grew roughly one percent per commercial enrollee between 2013 and 2014.
- Payers reported that price increases and shifts in the providers used, not changes in overall health care utilization, drove observed spending increases.

Trends in Medicare and MassHealth

- Among beneficiaries with Original Medicare (fee-for-service), Massachusetts spends more on hospital care but less on physician care than the U.S. overall.
- Baseline trends, the extension of MassHealth eligibility under the Affordable Care Act, and a temporary coverage program to address operational difficulties at the Massachusetts Health Connector all contributed to significant MassHealth enrollment growth between 2013 and 2014.
- MassHealth spending accounted for two-thirds (3.2 percentage points) of statewide spending growth between 2013 and 2014, or half of statewide spending growth (2.5 percentage points) if drugs are excluded. By the fall of 2015, the Connector website was functioning well, and MassHealth enrollment had stabilized at 1.85 million members, a 31 percent increase relative to the fall of 2013.

Trends in access, affordability, and quality

- Patient cost-sharing (co-payments and deductibles) increased 4.9 percent between 2013 and 2014. Including other out-of-pocket spending such as over-the-counter medications and uncovered services and providers, 38 percent of residents paid more than $1,000 and 19 percent paid more than $3,000 in cost-sharing in 2014. Patients with certain behavioral health conditions paid a higher percentage of their total health spending out-of-pocket than those with other medical conditions.

- Massachusetts continued to perform well relative to the rest of the U.S. on most measures of quality and access to care and had the highest rate in the nation of insurance coverage in 2014. However, on measures of appropriate hospital admissions and excess readmissions, Massachusetts performed worse than the U.S., and considerable opportunities remain to further improve quality and access as well as population health.

Trends in provider markets

- Massachusetts is characterized by a growing concentration of inpatient care in large systems. Increasingly, physicians are also consolidating into large systems, whether through clinical affiliations, contracting affiliations, or acquisitions. In 2010, 68 percent of primary care physicians were affiliated with large systems; in 2014, this percentage was 76 percent. The acquisition of physician practices by hospital systems may also result in the addition of outpatient facility fees, an important trend to monitor.

Prescription drug spending

- Prescription drugs were a major area of spending growth in 2014, after years of low growth, with a 13 percent per-capita spending increase in Massachusetts between 2013 and 2014, slightly higher than the U.S. growth rate. One-third of all spending growth in Massachusetts (1.6 percentage points) was attributable to prescription drugs. Growth was driven by the entry of new drugs, price increases, and a low rate of patent expirations.
- New, effective, but high-cost drugs for the Hepatitis C virus were a particular driver of drug spending growth in 2014.
- Spending on specialty drugs, which typically cost more than $6,000 a year, grew from 26 percent to 34 percent of Massachusetts' drug sales between 2010 and 2014.
- Many top drug classes have had double-digit spending increases each year. For oncology drugs, the therapy class with the highest spending in Massachusetts and the U.S., spending in Massachusetts grew to almost $700 million in 2014, an increase of 12.3 percent from 2013.
- Given the current national regulatory framework, many aspects of drug spending are outside the direct control of payers and providers in Massachusetts, and change would require federal action. However, levers for change are available at the state level, some requiring new legislation.

Hospital outpatient utilization and spending

- Relative to the national average, hospital outpatient visits are 50 percent more frequent in Massachusetts, and hospital outpatient spending has been growing rapidly, with an average annual per-capita growth rate of six percent in Medicare and three percent in commercial insurance between 2010 and 2014. Some services have shifted from inpatient to outpatient settings, while others have shifted from non-hospital to hospital outpatient settings.
- Outpatient surgery accounts for more than half of the growth in hospital outpatient spending. In a subset of five high-volume surgical procedures that could be performed in either the outpatient or inpatient setting, the share performed in the outpatient setting grew from 48 percent in 2011 to 70 percent in 2013. Spending for these procedures would have been about 15 percent higher without the shifts in setting.
- Payments for standard services and medical tests are substantially higher in the hospital outpatient department, compared to physician offices and other non-hospital settings. For example, the median price of a colonoscopy in a hospital outpatient department was 56 percent above the median price in a non-hospital setting.

OPPORTUNITIES TO INCREASE QUALITY AND EFFICIENCY

Variation among providers in prices and episode costs

- Prices vary significantly among providers, and such variation has not meaningfully decreased over time. A substantial amount of the variation in inpatient hospital prices is not related to measures of quality or other value-based factors. Rather, the higher prices some providers receive appear to reflect market leverage and negotiating power. This extensive price variation, combined with increasing concentration of volume in high-cost providers, leads to higher spending and persistent inequities in the distribution healthcare resources.
- Commercial spending for episodes of care can also vary extensively. For low-risk pregnancies, commercial spending for an episode of care varied from below $12,300 at several less expensive hospitals to $18,500

at the most expensive hospital. While variation in episode spending could result from price variation, practice variation, or a combination of the two, the HPC found that the variation was overwhelmingly driven by the price of the procedure.

- Unnecessary and avoidable utilization also drive high costs. In Massachusetts, the rate of Caesarian section for first-time mothers was 26.2 percent—above the target rate of 23.9 percent proposed as part of the federal government's Healthy People 2020 initiative. Unnecessary Caesarian sections increase spending and increase health risks for mother and baby.

Avoidable hospital use

- All-cause readmissions in Massachusetts have improved slightly, consistent with national trends. However, based on Medicare data, Massachusetts readmission rates remain worse than the national average, and between October 2015 and September 2016, 78 percent of Massachusetts hospitals were penalized by Medicare for readmission rates in excess of the national average.
- Rates of preventable inpatient hospital use improved slightly between 2013 and 2014, but rates of preventable hospitalizations in lower-income communities (median family income below $52,000) remained twice as high as rates in higher income communities (median family income > $87,000), a troubling indicator of disparities in care.
- While overall ED use declined slightly between 2010 and 2014, visits associated with a primary behavioral health diagnosis increased sharply (24 percent over four years). Certain regions of the Commonwealth had markedly high rates of behavioral-health related ED visits, as did certain demographic segments, and seven percent of ED visitors accounted for 33 percent of visits.
- Emerging technologies offer promise to support population health management and address hospital overutilization. Event notification services, other facets of health information exchange, and telemedicine in particular, have been effective in other states comparable to Massachusetts.

Access to primary care

- Despite the state's high numbers of physicians per capita, the number of primary care providers per capita varies 30-fold across the state and is lower in more rural areas; 500,000 residents live in federally-identified areas with a shortage of primary care providers (PCPs).
- Nurse practitioners (NPs) provide care at comparable quality and lower cost than physicians, and are more likely to practice in rural areas and to serve Medicaid patients. Relative to other states, Massachusetts requires high levels of physician oversight for NPs, which can limit access to care and add unnecessary costs.
- In Massachusetts, 25 percent of primary care providers practice in NCQA-recognized patient-centered medical homes, a rate considerably above the national average of 15 percent.

Maximizing value in post-acute care

- Massachusetts continued to use post-acute care at a higher rate than the national average. While post-acute patterns have changed little overall between 2010 and 2014, the use of institutional post-acute care after total joint replacement declined over these years in 49 of the 57 hospitals for which rates are available.

PROGRESS IN ALIGNING INCENTIVES

Alternative payment methods

- Alternative payment methods (APMs) offer incentives that support value and reward high-quality care. Statewide, the rate of APM coverage increased eight percentage points between 2012 and 2014, with differences among payers. In 2014, the three major commercial payers met the HPC's 2016 target of at least 60 percent of each payer's HMO lives covered by APMs.
- In 2014, rates of APM adoption within commercial preferred provider organizations (PPOs) remained low. However, at the HPC's 2015 Health Care Cost Trends Hearing, the state's largest commercial payer announced an agreement with four major providers whereby it would use APMs to pay for PPO members beginning in 2016. The change will affect one-third of that payer's total PPO population. More progress is needed to meet the Report's target of one-third of all PPO lives covered by APMs by 2017.
- Developing a comprehensive care delivery and payment reform model that promotes coordination of care, improves population health, integrates behavioral health and long-term supports and services, and enhances accountability for total cost of care is a top priority for the Executive Office of Health and Human Services. In developing this strategy, MassHealth has

initiated an intensive stakeholder engagement and policy development process with the goal of launching a range of ACO models at scale over the next one to two years.

- Sixty-two provider groups or organizations in Massachusetts participate in Medicare's Bundled Payments for Care Improvement Initiative, but bundled payments covering episodes of care have not yet taken hold among commercial payers in Massachusetts.

Demand-side incentives

- As required by Chapter 224, commercial payers launched transparency tools in 2014, offering consumers information on the costs and quality of care available from different providers. However, there has been limited utilization of these tools to date; major payers reported fewer than 50 inquiries per 1,000 members. Many tools do not yet include information on prices for behavioral health visits or measures of the quality of care.
- High-deductible health plans (HDHPs) surpassed tiered network plans in the share of market covered. HDHPs have lower premiums than tiered products, but often lead to indiscriminate reductions in utilization, especially among low-income members. Tiered network products could be strengthened by widening the cost-sharing differentials between tiers and using consistent quality metrics for tier placement.

RECOMMENDATIONS

In light of these findings, as well as the HPC's other analytic and policy work throughout the year, this Report makes the following recommendations and commitments to promote the goals of Chapter 224:

Recommendations to foster a value-based market

1. Payers and employers should continue to enhance strategies that enable consumers to make high-value choices, including increasing transparency of comparative prices and quality.
2. The Commonwealth should enhance transparency of drug prices and spending, and payers should consider opportunities to maximize value.
3. The Commonwealth should take action to implement safeguards for consumers and improve market function related to out-of-network billing practices.
4. The Commonwealth should take action to equalize payments for the same services between hospital outpatient departments and physician offices.
5. The Commonwealth should act to reduce unwarranted variation in provider prices. The HPC will undertake further research and analysis and will convene stakeholders to discuss specific policy options.

Recommendations to promote an efficient, high-quality care delivery system

6. The Commonwealth should continue to focus on enhancing community-based, integrated care and reducing the unnecessary utilization of costly acute settings.
7. The Legislature should act to remove scope of practice restrictions for Advanced Practice Registered Nurses (APRNs).
8. The Commonwealth should be a national leader in use of enabling technologies to advance care delivery transformation through expansion of health information exchange, telehealth, and other digital health innovations.

Recommendations to advance alternative payment methods

9. Payers and providers should continue to focus on increasing the adoption and effectiveness of APMs in promoting high quality, efficient care.
10. The Commonwealth should develop alternative payment models to catalyze delivery system reform in MassHealth. This is a top priority of the Executive Office of Health and Human Services and the HPC strongly supports this effort.
11. Payers and providers should seek to align technical aspects of their global budget contracts, including quality measures, risk adjustment methods, and reports to providers. The HPC will convene providers to continue this important work.

Recommendations to enhance transparency and data availability

12. The Commonwealth should develop a coordinated quality strategy that is aligned across public agencies and market participants.
13. CHIA should continue to improve and document its data resources and develop key spending measures.

Cost Trends Report
Conclusion and Recommendations

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The HPC publishes an annual report describing health care cost trends, documenting the health sector's performance relative to the statewide growth benchmark, and identifying opportunities for improvement in cost, quality, and access. In light of the findings presented in this 2015 Cost Trends Report, as well as other analytic and policy work throughout the year, the HPC has developed recommendations for market participants, policy makers, and other government agencies.

DASHBOARD OF KEY HPC METRICS

In keeping with a recommendation from the 2014 Cost Trends Report, the HPC has developed a set of measures to track health system performance (see **Exhibit 13.1**), drawing upon findings for the 2015 Cost Trends Report. This set of key metrics, or "dashboard," is intended to track Massachusetts health system performance in areas identified by the HPC as priorities for ongoing attention and improvement. For the dashboard, the HPC selected measures with a credible, regular, and up-to-date data source to present trend over time in Massachusetts and to compare performance in the Commonwealth to a national benchmark, where available. For some measures, the HPC will also track performance against targets for improvement.

RECOMMENDATIONS

Consistent with past reports, the recommendations are organized into four primary areas of opportunity for improving the health care system in Massachusetts:

1. **Fostering a value-based market** in which providers and payers openly compete to provide services, and in which consumers and employers have appropriate information and incentives to make high-value choices for their coverage and care options
2. **Promoting an efficient, high-quality delivery system** with patients and primary care providers at the center in which providers efficiently deliver coordinated care that integrates behavioral health and physical health and produces better outcomes and improved health status
3. **Advancing alternative payment methods** that support and equitably reward providers for delivering high-quality care while holding them accountable for slowing the rate of health spending across the Commonwealth
4. **Enhancing transparency and data availability** necessary for providers, payers, purchasers, and policy makers to successfully implement reforms and evaluate progress over time.

FOSTERING A VALUE-BASED MARKET

A transparent and competitive health care market that rewards high-value providers is essential for constraining growth in health care costs and meeting the health care cost growth benchmark in the future. As documented in this Report, the majority of care in the Commonwealth is provided by a relatively small number of large provider systems, and both hospitals and physicians have continued to align with large systems. This degree of consolidation in the marketplace can impact health care costs, quality, and access. The HPC finds that price and spending variation among providers has persisted, and the share of patient volume served by high-cost providers continues to be significantly higher than that of lower-cost providers.

In the insurance market, enrollment in high-deductible health plans increased from 14 percent of the market in 2012 to 19 percent in 2014, while enrollment in tiered network plans grew more slowly (from 14 percent to 16 percent). In 2014, Massachusetts payers launched online price information tools, but consumer use of these tools was low.

To advance the goal of a more value-based market in 2016, in which consumers, armed with information on cost

and quality, have meaningful options and are rewarded for making high-value coverage and care choices, the HPC recommends:

1. Payers and employers should continue to enhance strategies that enable consumers to make high-value choices, including increasing the transparency of comparative prices and quality. Specifically:

a. Payers should continue to improve value-oriented products such as tiered and limited plan designs that create incentives, such as financial rewards for choosing high-value services and providers, through strategies including:
   i. Using transparent, aligned methods to tier providers.
   ii. Increasing the cost-sharing differentials between preferred and non-preferred tiers to better reflect value-based differences among providers.
   iii. Improving educational and outreach efforts to help employers and employees better understand the products and their benefits and tradeoffs.
   iv. Exploring limited network products that are associated with one or more high performing accountable care organizations (ACOs).

b. Payers should continue to innovate and provide new mechanisms that reward consumers for making high value choices, through strategies including:
   i. Providing cash-back rebates for choosing low-cost providers.
   ii. Offering members incentives at the time of primary care provider (PCP) selection, with the level of incentives tied to differences in the total cost of care associated with this PCP.

c. When feasible, employers should offer employees a choice of plans and use defined-contribution and other strategies to reward employees for choosing lower-cost plans. In particular, employers who offer high-deductible health plans should pair them with health savings accounts (HSAs) or health reimbursement accounts (HRAs) and should also offer a choice of other value-based insurance products in addition to these plans. All such plans should be monitored to ensure that they do not impose an undue and unavoidable cost-sharing burden on members, especially lower income members.

d. Information, coupled with incentives and choice, is an essential element of a well-functioning market for health care. Payers should continue to improve the use and usability of online price and quality information available to members and should link that information with opportunities and incentives to make high-value choices.

2. The Commonwealth should enhance transparency of drug prices and spending, and payers should consider opportunities to maximize value. Given the current national regulatory framework, many aspects of drug spending are outside the direct control of payers and providers in Massachusetts, and change would require Federal action. However, levers for action are available at the state level, some requiring new legislation. In addition, public and commercial payers should consider opportunities to maximize value. Specifically, to address spending growth associated with pharmaceuticals:

a. All payers should pursue the use of value-based benchmarks when negotiating prices and consider opportunities for the use of risk-based contracting with manufacturers.

b. The Legislature should require increased transparency in drug pricing and manufacturer rebates.

c. The Legislature should add pharmaceutical and medical device manufacturers to the list of mandatory market participant witnesses at the HPC's Annual Health Care Cost Trends Hearing.

d. Public and commercial payers and purchasers should consider a range of opportunities for group purchasing and joint negotiation.

e. State and federal lawmakers should advocate for legislation to allow Medicare to negotiate prescription drug prices.

In addition, payers and providers should work to ensure efficient utilization of prescription drugs:

f. Stakeholders should work together to develop and use treatment protocols and guidelines that make appropriate use of lower-cost drugs when available and to achieve consensus on appropriate use when new high cost drugs enter the market.

All such policies should be developed in a manner that ensures patients' access to necessary therapies.

3. The Commonwealth should take action to implement safeguards for consumers and improve market function related to out-of-network billing. Consumers may face high charges from out-of-network hospitals and physicians in certain circumstances, including in emergency situations and when services are received at in-network facilities but provided by out-of-network providers without the consumer's informed agreement. These high out-of-network charges can create financial burdens for consumers and also raise significant challenges to healthy market functioning. Drawing on models from other states (such as New York), the Legislature should require providers to inform consumers whether they are in- or out-of-network before services are delivered. The Legislature should also require that carriers hold their members harmless in cases of out-of-network emergency services and enhance consumer awareness of existing "surprise billing" protections. Finally, the Legislature should establish a maximum reasonable price for such services, to ensure that these protections for consumers do not increase overall spending or have other unintended consequences.

4. The Commonwealth should take action to equalize payments for the same services for similar patients between hospital outpatient departments and physician offices. In some cases, the same service can be provided in different settings of care. In particular, hospital outpatient department rates can be substantially higher than physician office rates for the same service, encouraging providers to provide services in hospital outpatient departments unnecessarily. The following proposals would improve financial incentives to provide care efficiently:

a. **The Legislature should limit the types of provider locations that can bill payers and patients as a hospital outpatient department.** The ability to earn higher payment rates as a hospital outpatient department rather than as a physician practice has incentivized hospitals to acquire physician practices and enable those practices to bill as hospital outpatient departments. These higher payments for services, due to the addition of hospital facility fees, may inappropriately increase total medical spending for payers and patients, as well as cause confusion for patients who may face increased cost-sharing. All payers should monitor such billing practices. Following recent Congressional action limiting eligibility for hospital outpatient department payments in Medicare from providers within 250 yards of a hospital's main campus, the Legislature should similarly limit the definition of those providers eligible for hospital outpatient payments and require all payers to adopt these policies, at a minimum, for both newly licensed hospital outpatient departments and existing sites.

b. **Payers should implement site neutral payments for select services for similar patients.** The Medicare Payment Advisory Commission has recommended that the Medicare program equalize payment rates of hospital outpatient departments with lower physician office rates for evaluation and management visits and a select set of other services. Payers in Massachusetts should identify select appropriate services and implement site neutral payments for these services.

5. The Commonwealth should act to reduce unwarranted variation in provider prices. Extensive variation in prices paid to health care providers for the same sets of services is a persistent issue in the Commonwealth, driving increased health care spending and perpetuating inequities in the distribution of health care resources. However, unwarranted variation in provider prices is not likely to decrease absent direct policy action. To inform the necessary action, the HPC will undertake additional research and analyeses and will engage with stakeholders (including the HPC Advisory Council) to discuss specific, data-driven policy options for consideration by the Legislature, other policy makers, and market participants in the first half of 2016.

CARE DELIVERY

Over its three-year history and in the current report, the HPC's research has highlighted Massachusetts' high levels of spending and high use of hospital and post-acute care. Within the state, the HPC has also noted variation among providers and communities in spending and practice patterns. Moreover, the HPC has identified ongoing opportunities to improve quality and efficiency in the areas of care coordination and clinical integration across settings, identifying and managing high-cost patients, screening and treatment of behavioral health conditions, caring for patients in efficient and community settings, and leveraging technology to support these efforts. The HPC continues to support providers in addressing these opportunities through investment, technical assistance, and certification programs. The increased adoption of effective APMs should further align provider incentives around quality and efficiency in care delivery

To advance the goal of an efficient, high-quality care delivery system in 2016, the HPC recommends:

6. The Commonwealth should continue to focus on enhancing community-based, integrated care and reducing the unnecessary utilization of costly acute settings. As part of this focus, the Commonwealth should develop the necessary strategies and apply the necessary resources to attain the following:

a. **Reductions in all-cause 30-day hospital readmissions:** The Commonwealth should achieve a 20 percent reduction in all-cause, all-payer 30-day hospital readmissions relative to the 2013 level, attaining an all-payer readmission rate below 13 percent by 2019. In particular, action should be focused on patients who frequently utilize hospital services, who represented 59 percent of all readmissions in 2013.

b. **Increased use of the patient-centered medical home model:** In 2015, 25 percent of Massachusetts primary care providers were practicing within patient-centered medical home (PCMH) practices recognized by the National Committee on Quality Assurance (NCQA). A third of all primary care providers should be practicing within NCQA-recognized PCHMs by 2017 and 20 percent of all primary care providers should be practicing within a HPC-certified PCMH PRIME practice (medical homes with integrated behavioral health) by 2017.

7. To improve access to low-cost, high-quality care, particularly for low income and underserved populations, the Massachusetts Legislature should remove scope of practice restrictions for Advanced Practice Registered Nurses (APRNs). The Legislature should consider adopting models used in other states that allow for such providers to practice to the full extent of their license and training.

8. The Commonwealth should be a national leader in the use of enabling technologies to advance care delivery transformation through the expanded adoption of health information exchange, telehealth, and other digital health innovations. Market participants should adopt technology tools that enhance access to care, including behavioral health care; keep more patients in community settings; support real-time information exchange; and enable effective care coordination, care transitions, and other activities of population health management. As part of this focus, the Commonwealth should examine and address policy and payment barriers to increased use of telehealth. Finally, Massachusetts payers, providers, and the health care innovation community should partner together to develop, test, and leverage the technology and service advances pioneered by Massachusetts-based start-up companies and established firms.

ALTERNATIVE-PAYMENT METHODS (APMS)

Effective APMs offer incentives that support value-based and patient-centered care. Between 2012 and 2014, the statewide rate of APM coverage increased eight percentage points, but the market should extend APMs to preferred provider organizations (PPO) in order to achieve continued gains in commercial APM coverage. APMs should be made more comprehensive and aligned to attain the desired benefits. In addition, global budgets alone may not be sufficient to alter the incentives facing many hospitals and specialists, sectors which are essential to health system transformation and cost containment.

To advance the goal of expanded adoption of effective APMs in 2016, the HPC recommends:

9. Payers and providers should continue to focus on increasing the adoption of alternative payment methods (APMs) and on increasing the effectiveness of APMs in promoting high quality, efficient care. Market participants should advance the following:

a. **APMs for HMO patients**. All commercial payers should increase the use of APMs with the goal of having 80 percent of the state HMO population in APMs by 2017.

b. **APMs for PPO patients**. Commercial payers should also seek to increase the use of APMs for members enrolled in PPO plans, with the initial goal of having one third of the state PPO population in APMs by 2017.

c. **Bundled payment**. As a complement to global payment APMs, payers and providers should follow the lead of the Centers for Medicare and Medicaid Services (CMS) and implement bundled payments for common and costly episodes of care, such as joint replacement, acute myocardial infarction, cancer treatment, and maternity stays. These bundles should include care provided both within and outside of the hospital in an appropriate clinical window.

d. **Disparities in payment levels**. As part of a strategy to reduce spending, payers should develop plans to

lessen the unwarranted disparity in global budgets paid to different providers by establishing stricter targets for spending growth for highly paid providers or by moving away from historical spending as the basis of global budgets.

e. **Include behavioral health and long-term services and support**. Payers should include behavioral health services in their global budget models, and develop plans for including long-term supports and services in such models where applicable to the patient population.

f. **The Group Insurance Commission (GIC) should make payment reform a core component of its next health plan procurement as it continues to increase the number of GIC members covered by APMs**. The GIC launched the Integrated Risk Bearing Organizations (IRBO) program in its 2013 procurement, requiring plans to meet targets for increasing percentages of GIC members seen by a provider in this ACO-type model. The HPC encourages the GIC to use its upcoming health plan procurement process to closely align with the HPC certification standards and reporting requirements for ACOs.

10. The Commonwealth should develop alternative payment models to catalyze delivery system reform in MassHealth. Developing a comprehensive care delivery and payment reform model that promotes coordination of care, improves population health, and enhances accountability for total cost of care is a top priority for the Executive Office of Health and Human Services. In developing this strategy, MassHealth has initiated an intensive stakeholder engagement and policy development process with the goal of launching a range of ACO models at scale over the next one to two years.

The HPC strongly supports these efforts and believes such reforms, paired with broad federal support, will accelerate overall health care system transformation in Massachusetts. Furthermore, the HPC specifically encourages MassHealth to consider the following design elements:

a. A payment model the supports the integration of behavioral health and long term supports and services with medical care, and incentivizes the development of cross-continuum partnerships, especially with existing high-performing community-based providers;

b. A payment model that moves away from historically-based spending targets that entrench price variation toward an absolute performance benchmark;

c. Mechanisms to increase member engagement (e.g., active member selection, member incentives to maintain care in ACO), as patient engagement is a critical part of achieving better outcomes; and,

d. Alignment, where appropriate, with commerical payers and CMS on technical elements of their payment model such as quality measures, risk adjustment, reporting, and attribution logic.

Finally, the HPC encourages MassHealth to consider prioritizing state and federal funds to support care redesign and capacity building at the safety-net and community-based providers who predominantly serve Medicaid members. Provider investments should be subject to system governance reform, as well as progress on reducing unnecessary utilization of costly acute settings, reallocation of spending within the total cost of care, and optimizing capacity to support the new care delivery models.

11. Payers and providers should seek to align technical aspects of their global budget contracts, including quality measures, risk adjustment methods, and reports to providers. The HPC plans to convene stakeholders early in 2016 to continue this important work.

DATA AND MEASUREMENT FOR TRANSPARENCY AND ACCOUNTABILITY

The importance of transparency and data availability surface throughout the discussions of spending trends, care delivery, APMs, and demand-side incentives. Data are essential to all aspects of system transformation, including setting priorities, harnessing the power of consumer choice, strengthening care delivery, designing and succeeding in new payment models, and monitoring progress.

To advance the goal of greater transparency and data availability in 2016, the HPC recommends:

12. The Commonwealth should develop a coordinated quality strategy that is aligned across public agencies and market participants. Relevant and credible quality measures are essential for many system goals, including value-based product design, payment, and consumer choice. Measures that pertain to behavioral health, long-term services and supports, and measures derived from patient reported outcomes are especially needed. The Legislature should refine the current process for developing the Standard Quality Measure Set (SQMS) to allow for the designation of limited sets of high priority measures for specific uses such as global budgets, consumer transparency,

and tiered or limited network product design, and should better define the role of the Statewide Quality Advisory Committee (SQAC) in providing input and guidance on the Commonwealth's overall strategy for quality measurement, improvement, and alignment.

13. To support transformation and accountability, CHIA should continue to improve and document its data resources and develop key spending measures. Specifically:

a. **Behavioral health data**. CHIA should continue efforts to collect discharge data from freestanding psychiatric and substance use disorder hospitals.

b. **Data on drug rebates**. CHIA should explore options to collect aggregate drug rebate amounts and reflect this information in estimates of total health care expenditures.

c. **Data on "discount arrangements**." As required by statute, CHIA should consider requiring reporting of agreements through which a provider offers to another provider a discount, rebate, or any other type of payment that is in any way related to the provision of health care services.

d. **The All-Payer Claims Database (APCD)**. The APCD is a critical tool for evaluating and monitoring system performance and represents a significant investment on the part of the state's payers. To enhance the return on this asset, by the end of 2016, CHIA should:

   i. Implement a master provider index in connection with the HPC Registration of Provider Organization programs.

   ii. Work with MassHealth to establish and publish a credible method to use APCD data to calculate enrollment, spending, and other essential measures for the MassHealth population and for key segments within it.

   iii. Attribute patients to providers and develop additional measures of spending.

   iv. Seek to make data, including data from public payers, available in a more timely fashion.

e. **Total Medical Expenditures for PPO populations**. CHIA should prioritize the development of a total medical expenditure measure for PPO populations that draws upon the APCD and uses the consensus attribution algorithm to identify accountable provider organizations. As an interim step, CHIA should consider collecting aggregate data on TME for PPO populations directly from payers in a manner that parallels the current HMO reporting.

f. **Provider-level measures of spending growth**. In 2016, CHIA should work with the HPC and other stakeholders to develop and implement measures of spending growth for hospitals and specialist physician groups, adding other provider types as necessary and feasible.

g. **Cross-payer pricing comparisons**. In order to facilitate comparisons of payer performance in the health care market, CHIA should refine its relative price methodology to allow for cross-payer comparison.

In the coming year, the HPC will pursue the activities noted above and work collaboratively with the Baker-Polito Administration, the Legislature, the Massachusetts health care industry, employers, consumers, and other stakeholders to advance the goals of a more affordable, effective, and transparent health care system in Massachusetts.

Dashboard of HPC System Performance Metrics

Exhibit 13.1: Dashboard of HPC system performance metrics

Key Area	Measure	MA Time Trend		Direction of Change	U.S. Comparison (1 = best)	MA relative to U.S.	Target
Benchmark and spending	**1. Growth of THCE per capita (performance assessed relative to 3.6% benchmark)**	2.4% (2012-2013)	4.8% (2013 - 2014)	■	4.2% (2013-2014)	■	<3.6%
	2. Growth in premiums	Family: 1.7% Single: 2.8% (2012-2013)	Family: 1.6% Single: 0.9% (2013-2014)	▲	Family: 3.9% Single: 4.7% (2013-2014)	▲	
	2a. Level of premiums	Family: $17,424 Single: $6,290 (2013)	Family: $17,702 Single: $6,348 (2014)	N/A	Family: $16,655 Single: $5,832 (2014)	■	
	3. Individuals with high out-of-pocket spending relative to income	N/A	11% (2013 and 2014 average)	N/A	MA ranked 2nd out of 51 (US = 15%) (2013 and 2014 average)	▲	
Efficient, high-quality care delivery	**4. Readmission rate (Medicare 65+)**	19.4% (2010) 18.2% (2012)	17.4% (2013)	▲	MA ranked 39th out of 51 (US = 17.0%) (2013)	■	
	4a. Readmission rate (All payer)	15.9% (2011)	15.0% (2013)	▲	N/A	N/A	<13% by 2019
	5. ED utilization (per 1,000 persons)	361 (2010) 357 (2013)	349 (2014)	▲	MA ranked 35th out of 51 (2013)	■	
	5a. Behavioral health ED utilization (per 1,000 persons)	21(2010) 24 (2013)	25 (2014)	■	N/A	N/A	
	6. Percentage of inpatient cases discharged to institutional PAC	20.6% (2013)	20.8% (2014)	●	MA = 20.4% (2012) US = 16.7% (2012)	■	
	7. At-risk adults without a doctor visit	7% (2013)	7% (2014	●	13% (2014)	▲	
	8. Percentage of primary care physicians practicing in certified PCMHs	1,580 20.3% of all PCPs (2014)	2,024 25.3% of all PCPs (2015)	▲	15.2% of all PCPs (2015)	▲	33% by 2017; 20% in Prime practice by 2017

▲ Better performance

● Similar performance

■ Worse performance

Key Area	Measure	MA Time Trend		Direction of Change	U.S. Comparison (1 = best)	MA relative to U.S.	Target
APMs	**9. Percentage of original Medicare members in APMs**	41% (2013)	46% (2014)	▲	16% (2014)	▲	
	10. Percentage of commercial HMO members in APMs	61% (2013)	68% (2014)	▲	N/A	N/A	80% by 2017
	11. Percentage of commercial PPO members in APMs	~1% (2013)	2% (2014)	●	N/A	N/A	33% by 2017
	12. Percentage of MassHealth members in APMs	PCC: 14% (2013) MCO: 32% (2013)	PCC: 22% (2014) MCO: 22% (2014)	●	N/A	N/A	
Value-based markets	**13. Enrollment in tiered network products**	Tiered: 14.5% (2013)	Tiered: 16.0% (2014)	●	N/A	N/A	
	14. Percentage of discharges in top 5 systems	51% (2012) 53% (2013)	56% (2014)	■	N/A	N/A	
	15. Percentage of discharges from hospitals with relative price of 1.0 or above	69% (2010) 72% (2013)	73% (2014)	■	N/A	N/A	

Note: THCE = total health care expenditures; ED = Emergency Department; HMO = health maintenance organization; PPO = preferred provider organization; APM = alternative payment method; PCMH = patient-centered medical home.

Source:

Measure 1-MA: Centers for Health Information and Analysis Annual Report, 2015

Measure 1-US: Centers for Medicare and Medicaid Services National Health Expenditure Data, 2013-2014

Measures 2,2a: HPC analysis of Medical Expenditure Panel Survey data, 2012-2014

Measure 3: Commonwealth Fund Scorecard on State Health System Performance, 2015

Measure 4: Institute of Medicine analysis of CMS Medicare Geographic Variation Data Files, 2015

Measure 4a: Center for Health Information and Analysis Hospital-Wide Adult All-Payer Readmissions in Massachusetts: 2011-2013 (Report)

Measures 5, 5a-MA: HPC analysis of Center for Health Information and Analysis Emergency Department Data Base , 2010-2014

Measures 5-US: Kaiser Family Foundation State Health Facts, accessed 2015

Measure 6-MA: HPC analysis of Center for Health Information and Analysis Hospital Discharge Database, 2013-2014

Measure 6-US and MA comparison: HPC analysis of HCUP Nationwide Inpatient Sample and State Inpatient Database, 2012

Measure 7: Commonwealth Fund Scorecard on State Health System Performance, 2015

Measure 8: HPC analysis of National Commission on Quality Assurance Clinician Directory and of American Association of Medical Colleges State Physician Workforce Database, 2014-2015

Measure 9: HPC analysis of Centers for Medicare and Medicaid Services ACO performance data , 2013-2014

Measure 10,11: HPC analysis of Center for Health Information and Analysis 2015 Annual Report: 2013-2014 Data Book

Measure 12: MassHealth personal communication, 2014 and HPC analysis of Center of Health Information and Analysis 2015 Annual Report: 2013-2014 Data Book

Measure 13: HPC analysis of Center for Health Information and Analysis 2015 Annual Report: 2013-2014 Data Book

Measure 14: HPC analysis of Center for Health Information and Analysis Hospital Discharge Database , 2012-2014

Measure 15: HPC analysis of Center for Health Information and Analysis Relative Price Data Book, 2009-2014.

Special Report on Provider Price Variation
Executive Summary

Massachusetts has been a national leader in ensuring access to high quality care and, with the passage of Chapter 224 of the Acts of 2012, the Commonwealth took steps to lead the nation in slowing the growth of healthcare costs. However, significant and persistent variation in provider prices for the same sets of services that is not tied to value threatens both of these goals of healthcare access and affordability. While some variation in prices may be warranted to support activities that are beneficial to the Commonwealth (e.g., provision of specialized services or physician training), work by multiple state agencies over the last six years has documented significant variation in provider prices that is not tied to measurable differences in quality, complexity, or other common measures of value. This unwarranted price variation, combined with the large share of patient volume at higher-priced providers, results in increased healthcare spending. It also perpetuates inequities in the distribution of healthcare resources that threaten the viability of lower-priced, high quality providers.

In this Special Report, the Health Policy Commission (HPC) builds on its past research and work by the Massachusetts Attorney General's Office (AGO) and the Center for Health Information and Analysis (CHIA), and demonstrates that the prices that different healthcare providers receive for the same sets of services vary significantly, price variation is not decreasing over time, and the combination of price variation and the large share of patient volume at higher-priced providers drives higher healthcare spending. We also report on the results of a rigorous analysis of the factors associated with inpatient hospital prices, finding that a substantial amount of price variation reflects the leverage of certain providers to negotiate higher prices with commercial insurers, rather than value-based factors such as higher quality of care.

Why do Provider Prices Vary? How Commercial Health Care Prices are Set

Commercial prices for healthcare services (including fee-for-service prices, global budgets, and other units of payment) and other contract terms are established through negotiations between payers and providers. The results of these negotiations are influenced by the bargaining leverage of the negotiating parties. Market structure, such as high market share, can create bargaining leverage that impacts payer-provider contract negotiations because a payer network that excludes "important" providers will be less marketable to purchasers (employers and consumers). If a provider has a substantial market presence such that there are few or no effective substitutes for that provider in its market, the potential cost to a payer of excluding the provider from that payer's network will be high. The provider may use that leverage to command higher, supracompetitive prices (and other favorable contract terms) from the payer, and the payer may be motivated to agree to such terms in order to keep that "important" provider in its network. On the other hand, providers who have less market leverage may be motivated to agree to lower prices (and less favorable contract terms) to stay in the payer network to ensure needed patient volume. In both cases, the prices may not reflect the relative quality of the different providers, or other indicia of value. This differential pricing is generally not transparent to consumers (e.g., through differences in premiums or patient cost-sharing).

SUMMARY OF FINDINGS

1. Provider prices vary extensively for the same sets of services. Since 2010, multiple state agencies have documented extensive variation in both hospital and physician prices in Massachusetts for the same sets of services; the highest-priced hospitals and physician groups have been found to have prices two to four times those of the lowest-priced hospitals and physician groups among the three largest commercial payers, with higher variation among some smaller payers. Prices vary both among all hospitals and among cohorts of hospitals with similar characteristics; for example, relative price percentiles vary by more than 70 points among community hospitals. Prices also vary across different payment methods, including both fee-for-service prices and alternatives such as global budgets. Spending for episodes of care also varies extensively, driven by differences in price.

2. Provider price variation has not diminished over time. The HPC has found that neither hospital nor physician prices are converging. Both the extent of variation and the distribution of hospital prices have been generally consistent since 2010, and the variation in physician prices has increased somewhat since 2009. The price positions of individual hospitals and physician groups relative to the market tend to be consistent over time, particularly for providers at the top and the bottom of the relative price distribution.

3. Unwarranted price variation contributes to higher healthcare spending due both to the prices and to the large share of volume at higher-priced providers. Price variation has a significant impact on total spending not only because some providers receive far higher prices than others for the same sets of services, but also because the providers with high prices tend to have high volume. For the three major commercial payers, hospitals with the highest inpatient relative prices had approximately six to eight times as many inpatient stays as hospitals with the lowest relative prices, and approximately 18 to 23 times as much inpatient revenue, adjusting for differences in the number of hospitals. This share of inpatient volume and revenue at the highest-priced hospitals increased from 2010 to 2014 for two of the three major payers. Volume and revenue is also concentrated among the highest-priced hospitals for outpatient services; the highest-priced hospitals had two to four times as many outpatient visits and four to eight times as much outpatient revenue as hospitals in the lowest-priced group.

4. Higher hospital prices are not generally associated with higher quality or other common measures of value; market leverage continues to be a significant driver of higher prices. Past research has found that higher prices are not generally associated with factors that are often believed to add measurable value for consumers (e.g., quality or patient acuity). The HPC used a new, multivariate analysis to further explore the relationship between inpatient hospital prices and various potential explanatory factors. Using this rigorous methodology, the HPC found that, holding all other factors constant, including case mix (i.e., patient acuity):

- Less competition is associated with higher prices
- Membership in certain hospital systems affects prices, with membership in some systems predicting higher prices and membership in other systems predicting lower prices
- Large system size is associated with higher prices
- Provision of higher-intensity services and status as a teaching hospital are associated with higher prices
- Higher prices are not generally associated with measures of higher quality of care or hospital costs
- Higher shares of patients covered by public payers are associated with lower commercial prices

Additional HPC analysis suggests that where policymakers have defined value-based factors on which provider prices may vary, such as in Maryland, some variation still occurs, but the extent of this variation on value-based factors is substantially less than the variation in Massachusetts.

5. Unwarranted price variation is unlikely to diminish over time absent direct policy action to address the issue. Massachusetts has undertaken significant healthcare market reforms that have increased the transparency of provider price variation and may have prevented further increases in variation over time. However, there has not been meaningful progress in reducing unwarranted variation in provider prices over the past six years, and current reforms do not hold significant promise for meaningfully reducing this variation.

In light of these findings and the lack of evidence that the market is rectifying this dysfunction on its own through new payment and care delivery models or insurance product designs, the HPC recommends direct policy action to address unwarranted provider price variation in the Commonwealth. Following the release of this report, the HPC will promptly convene stakeholders to present and discuss specific, data-driven policy options for consideration by the legislature, other policy makers, and market participants. The HPC looks forward to working with these stakeholders to reduce unwarranted price variation in support of more sustainable and equitable healthcare system.