


OPPORTUNITIES FOR SAVINGS IN HEALTH CARE

2018

*A Roadmap to Reduce Massachusetts
Health Care Spending by \$4.8 Billion in Five Years*

MAY 2018

CONTENTS

- 1** Executive Summary
 - 3** **Scenario #1:** Reduce Institutional Post-Acute Care (PAC)
 - 5** **Scenario #2:** Reduce Hospital Readmissions
 - 7** **Scenario #3:** Increase Commercial Alternative Payment Methods (APMs) Adoption
 - 9** **Scenario #4:** Shift Community Appropriate Inpatient Care
 - 11** **Scenario #5:** Reduce Avoidable Emergency Department (ED) Use
 - 13** **Scenario #6:** Limit Growth in Prescription Drug Prices
 - 15** **Scenario #7:** Reimburse Hospital Outpatient Care at a Site-Neutral Rate
 - 17** Acknowledgments
- 

EXECUTIVE SUMMARY

To address excessive health care costs that crowd out spending on other needs for government, households and businesses alike, the Massachusetts Health Policy Commission (HPC) annually sets a statewide target for sustainable growth of total health care spending. From 2013 to 2017, the benchmark rate was set at 3.6% growth.

For the first time for 2018 and 2019, the HPC exercised new authority to lower this target to a more ambitious growth rate of 3.1%, the lowest level allowed by state law. Achieving this reduced growth rate in the future will require renewed efforts by all actors in the health care system, supported by necessary policy reforms, to achieve savings without compromising quality or access.

The HPC informs these efforts with its [annual cost trends reports](#) that present an overview of health care spending and delivery trends in Massachusetts, evaluate progress in key areas, and make policy recommendations for strategies to increase quality and efficiency in the Commonwealth. The [2017 Cost Trends Report](#) and accompanying [Chartpack](#) include ten policy recommendations shown to the right.

Building on these recommendations, **Opportunities for Savings in Health Care** is designed to provide health care market participants, employers, policymakers, and the public with a greater understanding of the scope and scale of identified savings opportunities. Specifically, this brief presents results from the HPC's costs-savings modeling for seven scenarios, focusing on care that is unnecessary or has unnecessarily high costs.

The HPC set an achievable target for each topic and modeled savings between 2018 and 2022. Potential savings from meeting the targets totaled \$4.76 billion, approximately 2.1% of total health care expenditures (THCE), if THCE continues to grow at a baseline trend of 3.55% every year.

RECOMMENDATIONS BY TOPIC:

- | | |
|-----------------------------|----------------------------------|
| 1. Pharmaceutical Spending | 6. Social Determinants of Health |
| 2. Out-of-Network Billing | 7. Health Care Workforce |
| 3. Provider Price Variation | 8. Innovation Investments |
| 4. Facility Fees | 9. Unnecessary Utilization |
| 5. Demand-Side Incentives | 10. Alternative Payment Methods |

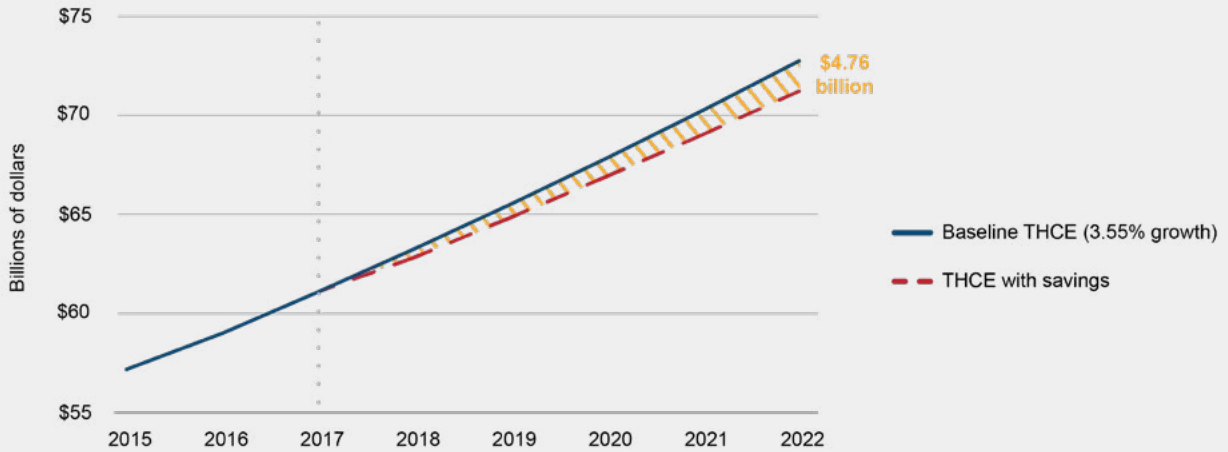
SUMMARY OF OPPORTUNITIES FOR SAVINGS

TARGET	SCENARIO	FIVE YEAR SAVINGS
I. Post-Acute Care (PAC)	Reduce all-payer discharges to institutional PAC to 15% without increasing home health use.	\$1.37b
II. Hospital Readmissions	Reduce readmissions by 20% from the 2015 level by 2022.	\$1.04b
III. Alternative Payment Methods (APMs)	Increase use of APMs in HMOs to 68% by 2022 (93% in large providers, and 36% for other providers), and to 40% by 2022 for PPO plans.	\$494.6m
IV. Community Appropriate Inpatient Care	Gradually shift 25% of commercial and Medicare community appropriate care from teaching hospitals to community hospitals.	\$211.4m
V. Avoidable Emergency Department (ED) Use	Redirect 20% of primary care treatable visits to a primary care setting; redirect 33% of non-emergent ED visits to a lower-cost setting; and eliminate another 33% of non-emergent ED visits.	\$351.7m
VI. Prescription Drugs	Limit growth of prescription drug prices to 1.55%.	\$230.5m
VII. Hospital Outpatient Care	Reimburse select outpatient procedures at a site-neutral rate, starting in 2018.	\$1.06b
TOTAL		\$4.76 billion (~2.1% THCE)
	Commercial Savings	\$2.55b

Meeting only three of the following targets alone would save over \$1 billion over five years: reducing post-acute care discharges, adopting site-neutral outpatient reimbursement for certain conditions, and reducing the hospital readmission rate by 20%. In total, meeting all seven targets would

reduce health care spending in the Commonwealth by \$4.8 billion over five years, and by more than \$1.5 billion annually beginning in 2022. About \$2.6 billion of the total savings would accrue to the commercial population. ■

TOTAL SAVINGS POTENTIAL



	2018	2019	2020	2021	2022
Baseline THCE (3.55% growth)	\$63.3 billion	\$65.5 billion	\$67.8 billion	\$70.3 billion	\$72.7 billion
Savings as a percentage of THCE	0.7%	1.0%	1.4%	1.7%	2.1%

SCENARIO #1:

\$1.37 B

NET SAVINGS

REDUCE INSTITUTIONAL POST-ACUTE CARE (PAC)

Policy Issue: Following discharge from an acute hospital, a variety of post-acute care (PAC) services are available to patients needing nursing or rehabilitative care. PAC services include home health care and care in a range of institutional settings such as skilled nursing facilities. The selection of appropriate PAC setting at discharge, quality of the PAC provider, and amount of care coordination provided in transitions between settings have important implications for patient experience, clinical outcomes, and health care spending in the Commonwealth.

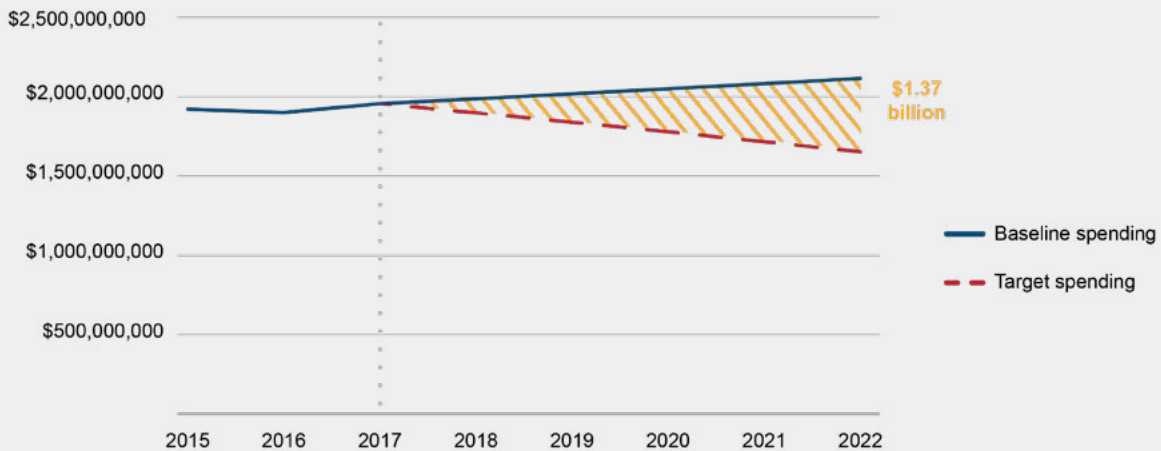
Previous HPC research found that Massachusetts has much higher use of both home health and institutional PAC than

the U.S. average, both of which are significantly more costly than discharge to home.¹ Even after accounting for a modest decline in discharges to institutional PAC in recent years,² the HPC estimates that in 2016, Massachusetts had a discharge rate to institutional PAC of 18.7%. Given the fact that many states have an institutional discharge rate below 15%, the HPC has set 15% as a target for this savings estimate.

Reduction Target: Reduce all-payer discharges to institutional PAC to 15% without increasing home health use.

Five-Year Savings Estimate (2018-2022): If Massachusetts reduced the rate of discharge to institutional PAC to 15%, it would result in potential five-year savings of **\$1.37 billion**.

SAVINGS FROM REDUCING THE DISCHARGE RATE TO INSTITUTIONAL PAC TO 15%



	2018	2019	2020	2021	2022	TOTAL
Net savings	\$88,690,518	\$178,626,287	\$270,946,831	\$365,700,683	\$462,937,279	\$1,366,901,599

ESTIMATION METHODS

Baseline: Using data from the Medicare geographic variation public use file, the HPC produced a composite estimate of the average cost of a discharge to an institutional PAC setting, weighting by relative frequency of use of skilled nursing facilities (SNFs), inpatient rehabilitation facilities (IRFs), and long-term acute care hospitals (LTACHs) in Massachusetts. The HPC projected cost growth through 2022 based on the rate of growth of the composite institutional cost from 2012 to 2015. For its baseline projection, the HPC multiplied average costs of institutional care by a constant number of institutional discharges expected each year based on the average number of institutional discharges in 2015 and 2016. The HPC assumed that, in the absence of intervention, the institutional PAC discharge rate would remain at the 2015 level through 2022.

Target: For the target, the HPC reduced by a constant volume the number of discharges to institutional PAC to achieve a discharge rate of 15% in 2022. The HPC multiplied the reduced number of institutional discharges in each year by its estimated composite cost per institutional discharge in each year to produce the savings estimate. ■

ENDNOTES

- 1 Health Policy Commission. 2015 Cost Trends Report. 2016 Jan.
- 2 Health Policy Commission. 2017 Cost Trends Report. 2018 Mar.

SCENARIO #2:

\$1.04 B

NET SAVINGS

REDUCE HOSPITAL READMISSIONS

Policy Issue: Unplanned readmissions following an inpatient discharge are often caused by deterioration in patient health due to inadequate management of the condition and lack of access to appropriate services or medications.¹ These readmissions are costly and negatively affect patient experience of care. Unplanned readmissions may be an indicator of health care system fragmentation, as in some cases they could be avoided with more timely and coordinated follow up care.

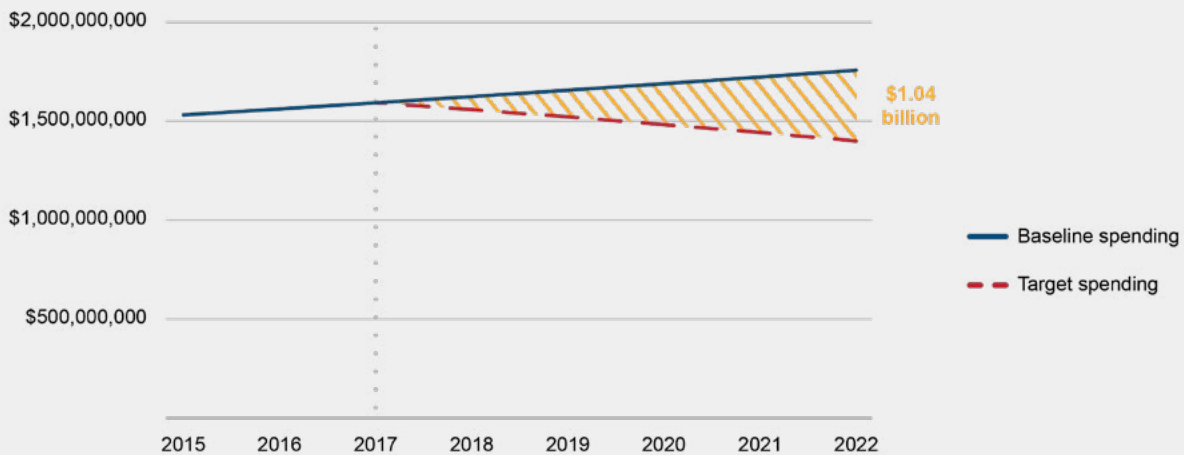
In the 2015 Cost Trends Report, the HPC recommended the Commonwealth set a 20% reduction target in all-cause,

all-payer 30-day hospital readmissions. Since then, the readmissions rate has increased slightly. Here, the HPC estimates potential five year savings that could be achieved if the Commonwealth succeeds in reducing readmissions by 20% from the 2015 level.

Reduction Target: Reduce readmissions by 20% from the 2015 level by 2022.

Five-Year Savings Estimate (2018-2022): The HPC multiplied the readmission reductions projected for each payer by the estimated cost of a readmission in each year to result in potential five-year savings of **\$1.04 billion**.

SAVINGS FROM REDUCING READMISSIONS BY 20%



	2018	2019	2020	2021	2022	TOTAL
Commercial savings	\$14,280,005	\$29,003,191	\$44,179,874	\$59,820,583	\$75,936,065	\$223,219,717
MassHealth savings	\$7,657,597	\$15,773,380	\$24,367,911	\$33,462,570	\$43,079,591	\$124,341,050
Medicare savings	\$44,104,166	\$89,928,395	\$137,522,998	\$186,939,596	\$238,231,147	\$696,726,302
Net savings	\$66,041,768	\$134,704,966	\$206,070,783	\$280,222,749	\$357,246,803	\$1,044,287,069

ESTIMATION METHODS

Baseline and Target: To estimate the trend in readmission rates through 2022 absent any intervention, the HPC held constant the 2015 readmission rates, total discharges, and payer mix of readmissions in Massachusetts for commercial, MassHealth, and Medicare.² Since the 2015 all-payer readmission rate was 15.8%, a 20% reduction indicates that the target readmission rate for 2022 would be 12.7%. The HPC assumes that, in the intervention scenario, the target rate of readmissions is achieved in 2022 by reducing a linearly increasing number of readmissions each year until the target is achieved.

Cost of a Readmission in Massachusetts: The HPC adjusted national estimates of the cost to the hospital of index admissions and readmissions for Medicare, Medicaid, and commercially insured patients in 2013 from the Healthcare Cost and Utilization Project (HCUP)³ using average hospital margins by payer to estimate average national hospital spending per readmission.⁴ The HPC translated these national estimates to Massachusetts levels of spending using several comparison sources. In the case of Medicare, the HPC applied geographic adjustments in Medicare payments that reflect medical resident training, wage indices, and other payments. For commercial spending, the HPC used a comparison of national and state spending estimates for 20 common Diagnosis-related Groups (DRGs).⁵ Finally, the HPC adjusted the payer-specific Massachusetts readmission cost amounts to include physician fees associated with hospital admissions using recently published estimates.⁶ The HPC projected spending per readmission through 2022 using the Center for Health Information and Analysis (CHIA) average reported annual growth in inpatient spending from 2013-2016. ■

ENDNOTES

- 1 Silow-Carroll S, Edwards JN, Lashbrook A. Reducing hospital readmissions: lessons from top-performing hospitals. Boston (MA): The Commonwealth Fund; 2011 Apr.
- 2 Center for Health Information and Analysis, Hospital-Wide Adult All-Payer Readmissions in Massachusetts: SFY 2011-2015
- 3 Barrett ML (M.L. Barrett, Inc.), Wier LM (Truven Health Analytics), Jiang HJ (AHRQ), Steiner CA (AHRQ). All-Cause Readmissions by Payer and Age, 2009–2013. HCUP Statistical Brief #199. December 2015. Agency for Healthcare Research and Quality, Rockville, MD. <http://www.hcupus.ahrq.gov/reports/statbriefs/sb199-Readmissions-Payer-Age.pdf>
- 4 United States House of Representatives. Committee on Ways and Means. Health policy issues. July 22, 2015. (Testimony of Mark E. Miller, Executive Director, Medicare Payment Advisory Commission).
- 5 Jared Lane Meda and Lyle Nelson, An Analysis of Private-Sector Prices for Hospital Admissions, Working Paper 2017-02 (Congressional Budget Office, April 2017), <https://www.cbo.gov/system/files/115th-congress-2017-2018/workingpaper/52567-hospital-prices.pdf>. Table A-6, p 58.
- 6 Peterson, Cora et al. "Professional Fee Ratios for US Hospital Discharge Data." *Medical care* 53.10 (2015): 840–849. PMC. Web. 31 Jan. 2018.

\$494.6M

NET SAVINGS

SCENARIO #3:

INCREASE COMMERCIAL ALTERNATIVE PAYMENT METHODS (APMs) ADOPTION

Policy Issue: Traditional fee-for-service (FFS) payment methods financially reward health care providers for the volume of services provided, which may encourage unnecessary utilization and contribute to the escalation of health care costs. APMs, such as global budget contracts and bundled payments, seek to promote value-based care and reduce unnecessary utilization.

Providers with only a minority of patients covered under an APM contract, and the rest paid under traditional FFS, face conflicting incentives. Reducing unnecessary utilization can result in savings under an APM but result in reduced revenue under FFS. Research suggests that providers need a critical mass of patients covered under risk-based contracts for the financial benefits of reducing avoidable utilization under an APM to outweigh FFS losses.

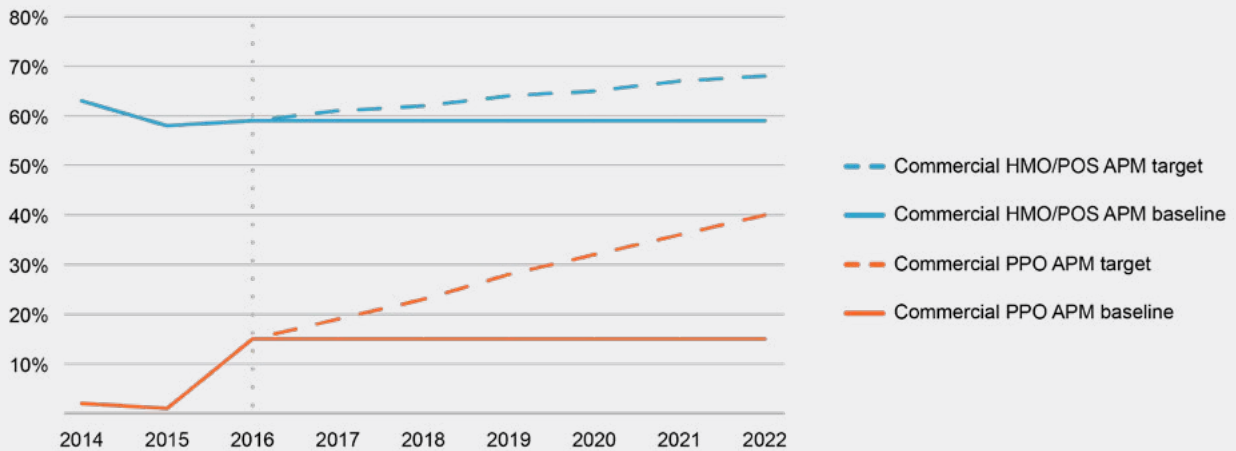
In the 2016 Cost Trends Report, the HPC recommended the Commonwealth set a target of 80% of commercial HMO members in APMs and one-third of the state's commercial PPO population enrolled in APMs. Analyzing APM rates by provider group,¹ the HPC found that most large provider

groups were already very near the HPC target for HMO patients; however, the overall statewide commercial APM rate for HMO patients is 59% because smaller provider groups and independent practices have much lower APM rates. Since it seems unlikely that unaffiliated and smaller provider groups would increase APM rates enough to reach the 80% target, this cost estimate assumes the Commonwealth reaches an overall APM rate of 68% in HMO plans by 2022.² For PPO plans, which had significant uptake in APM rates in 2016, the HPC assumes the Commonwealth could increase APM rates to 40% by 2022.

Reduction Target: Increase use of APMs in HMOs to 68% by 2022 (93% in large providers, and 36% for other providers), and to 40% by 2022 for PPO plans.

Five-Year Savings Estimate (2018-2022): The HPC calculated the difference between the total projected full claim commercial costs with no change in APM adoption and with increased APM adoption to estimate potential five-year savings of **\$494.6 million**.

PERCENT OF COMMERCIAL MEMBERS IN APMs BY PRODUCT, BASELINE, AND TARGET



	2018	2019	2020	2021	2022	TOTAL
Net savings	\$3,877,163	\$30,889,395	\$74,780,093	\$150,444,411	\$234,635,036	\$494,626,098

ESTIMATION METHODS

Baseline and Target: For HMO/POS members, the HPC began with Massachusetts data from the Center for Health Information and Analysis (CHIA) on APM uptake in 2016 for commercial full-claim members by provider group. The projection assumed a steady increase in APM uptake of 2 percentage points per year with no individual provider exceeding a 95% HMO APM adoption rate. For HMO members, the ten largest providers (which were individually modeled) were estimated to reach 93% APM uptake for HMO members taken together; the other providers were grouped and projected to reach 36% APM uptake for HMO members. For PPO members, individual provider APM uptake data is not available, so the HPC projected that each provider began with the statewide average of 15% PPO APM adoption in 2016 and increased steadily each year to reach 40% APM adoption by 2022. For the non-intervention projection, the HPC assumed that APM rates already achieved by 2016 would be maintained with no change until 2022.

Projected Spending with Projected Increasing APM Uptake: The HPC calculated commercial full-claim spending for large provider groups in 2016 using CHIA's "TME (total medical expenses) by managing physician groups" databook.³ This spending figure includes both HMO and PPO members. The HPC estimated spending for all smaller providers combined by subtracting the spending calculated for the large provider groups from total spending for full-claim commercial members reported by CHIA.

To estimate the trend in commercial full-claim spending through 2022 absent any intervention, the HPC held constant the payer mix and membership in commercial insurance, and assumed that APM rates remained at the 2016 level. The HPC assumed that commercial spending would grow 3.1% per year at the 2016 rates of APM adoption.

Based on evidence from the Blue Cross Blue Shield Alternative Quality Contract and the experience with Medicare's Accountable Care Organization (ACO) program, the HPC assumed that APMs reduced spending growth for enrolled members by 1% generally, but that the reduction doubled to 2% once a tipping point APM coverage threshold was exceeded. The HPC estimated that tipping point to be 63% based on recent literature.⁴ Since that tipping point is an all-payer target and APM coverage is lower, on average, in the Medicare program, the HPC estimated that commercial APM coverage would have to be approximately 75% to achieve an all-payer target of 63%. ■

ENDNOTES

- 1 HPC analysis of Center for Health Information and Analysis Annual Report APM databook, 2017
- 2 Point of Service (POS) plans are also included in the HMO target; these plans also require selection of a primary care provider, making it significantly easier to apply APMs.
- 3 HPC analysis of Center for Health Information and Analysis Annual Report TME databook, 2017
- 4 Basu S, Phillips R, Song Z, Bitton A, Landon B. Hi Levels of Capitation Payments Needed to Shift Primary Care Toward Practice Team and Nonvisit Care, 1599-1605, Health Affairs, September 2017 36:9.

SCENARIO #4:

\$211.4M

NET SAVINGS

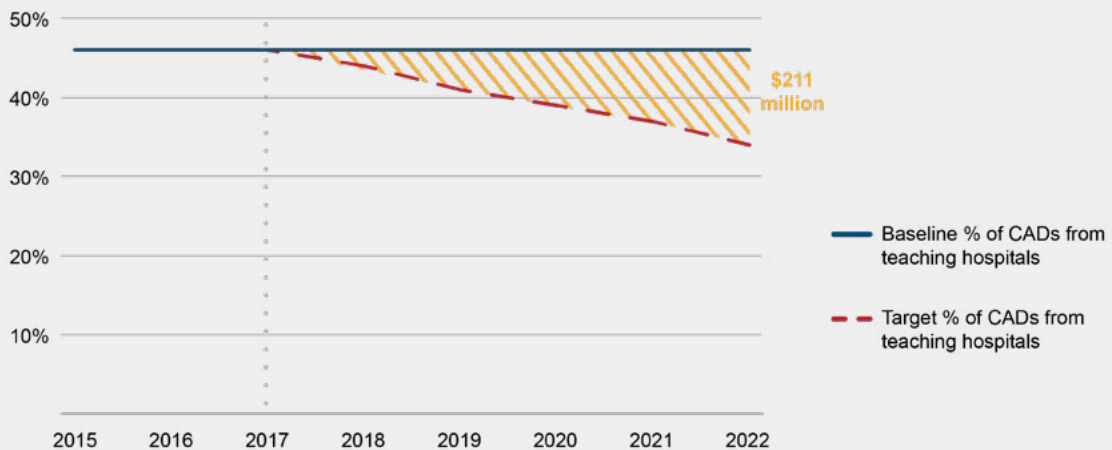
SHIFT COMMUNITY APPROPRIATE INPATIENT CARE

Policy Issue: An increasing share of inpatient care in Massachusetts is delivered in teaching hospitals rather than in lower-cost community hospitals. For many low-acuity or “community appropriate” conditions, most hospitals in the Commonwealth can safely and effectively deliver inpatient care. When possible, care for such conditions should be provided at high-value community hospitals. However, the HPC found in the 2017 Cost Trends Report that the percentage of such care provided by community hospitals has steadily fallen, from 59.8% in 2011 to 57.7% in 2016.

Reduction Target: Gradually shift 25% of commercial and Medicare community appropriate care from teaching hospitals to community hospitals.

Five-Year Savings Estimate (2018-2022): If Massachusetts shifted 25% of community appropriate care to community hospitals, it would result in potential five-year savings of **\$211.4 million**.

SAVINGS FROM SHIFTING 25% OF COMMUNITY APPROPRIATE CARE FROM TEACHING HOSPITALS TO COMMUNITY HOSPITALS



	2018	2019	2020	2021	2022	TOTAL
Commercial savings	\$9,041,380	\$18,363,360	\$27,972,471	\$37,875,381	\$48,078,892	\$141,331,484
Medicare savings	\$4,436,538	\$9,046,101	\$13,833,750	\$18,804,677	\$23,964,211	\$70,085,277
Net savings	\$13,477,918	\$27,409,461	\$41,806,221	\$56,680,058	\$72,043,103	\$211,416,761

ESTIMATION METHODS

Baseline: *Case-mix adjusted community appropriate discharges (CADs):* The HPC used the Center for Health Information and Analysis (CHIA) Hospital Inpatient Discharge Database (HIDD) to calculate the volume of commercial and Medicare community appropriate discharges at teaching and community hospitals in 2016. “Community appropriate discharges” are the subset of discharges by DRG that HPC identifies can be appropriately treated in community hospitals. The average case mix severity of community appropriate discharges by hospital was calculated using Medicare Severity-Diagnosis Related Group (MS-DRG) weights. Volume by payer was divided by average case mix to produce the number of CADs by payer at teaching and community hospitals.

Average price per case-mix adjusted discharge: Commercial average price per discharge was calculated using 2015 revenue for one Massachusetts commercial payer from CHIA’s relative price data. Medicare average price per discharge was derived using hospital-specific files from the FY2016 Medicare Inpatient Prospective Payment System Final Rule. The HPC divided the commercial and Medicare prices by case mix severity to produce average prices per case mix adjusted discharge.

Baseline spending was calculated by multiplying the average price per case-mix adjusted discharge by the number of case-mix adjusted community appropriate discharges for both commercial and Medicare patients. To project baseline spending, the HPC assumed a constant rate of inpatient care and case-mix acuity from 2016 to 2022, adjusting the prices each year (starting in 2015) using inpatient spending growth rates from CHIA’s 2017 Annual Report Total Medical Expenditure databook.

Target: The target spending in a year was calculated with the same method described above, shifting an additional 5% of community appropriate discharges that occur in teaching hospitals from teaching hospitals to community hospitals each year to reach the cumulative 25% target. ■

SCENARIO #5:

\$351.7M

NET SAVINGS

REDUCE AVOIDABLE EMERGENCY DEPARTMENT (ED) USE

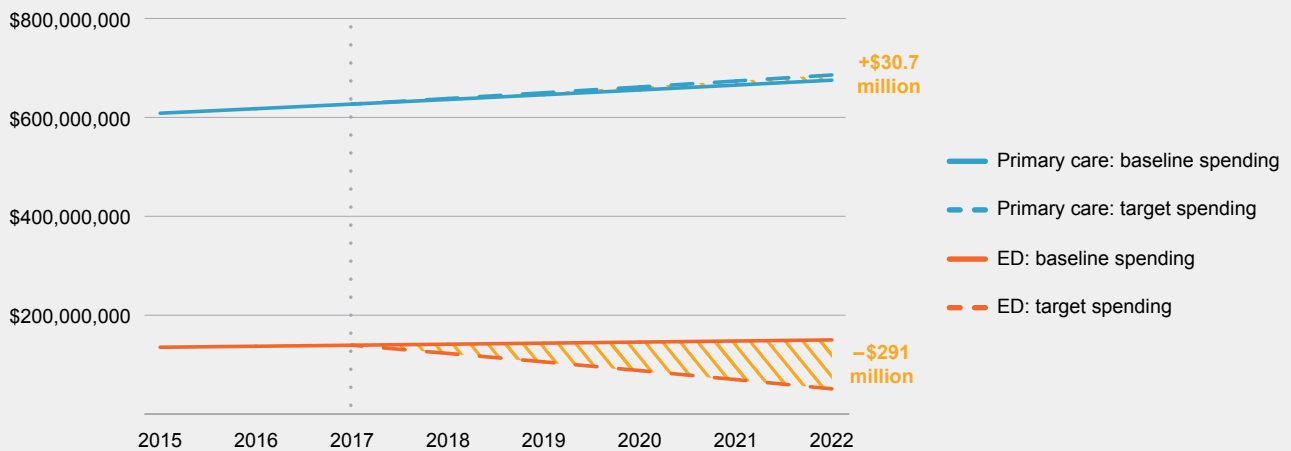
Policy Issue: The use of EDs for non-urgent or avoidable medical conditions is a growing policy focus in the United States and in Massachusetts. Many policymakers believe that it is essential to shift as many of these visits as possible to high-value, low-cost settings to relieve crowded EDs, lower the cost of care, and improve quality. Analyses of avoidable ED use focus on two types of visits: **primary care treatable** visits that could have been safely and effectively treated by a primary care provider (e.g., a visit for an ear infection) and **non-emergent** visits that did not require any immediate medical care (e.g., a visit for a bad sore throat with no fever).¹

The HPC has reported that 42% of all ED visits in Massachusetts in 2015 were avoidable, a share that has remained constant since 2011.² While this percentage is similar to the national average, when combined with its higher overall ED usage rate, it appears that Massachusetts has more avoidable ED visits per resident than the national average.

Reduction Target: Redirect 20% of primary care treatable visits to a primary care setting; redirect 33% of non-emergent ED visits to a lower-cost setting; and eliminate another 33% of non-emergent ED visits.

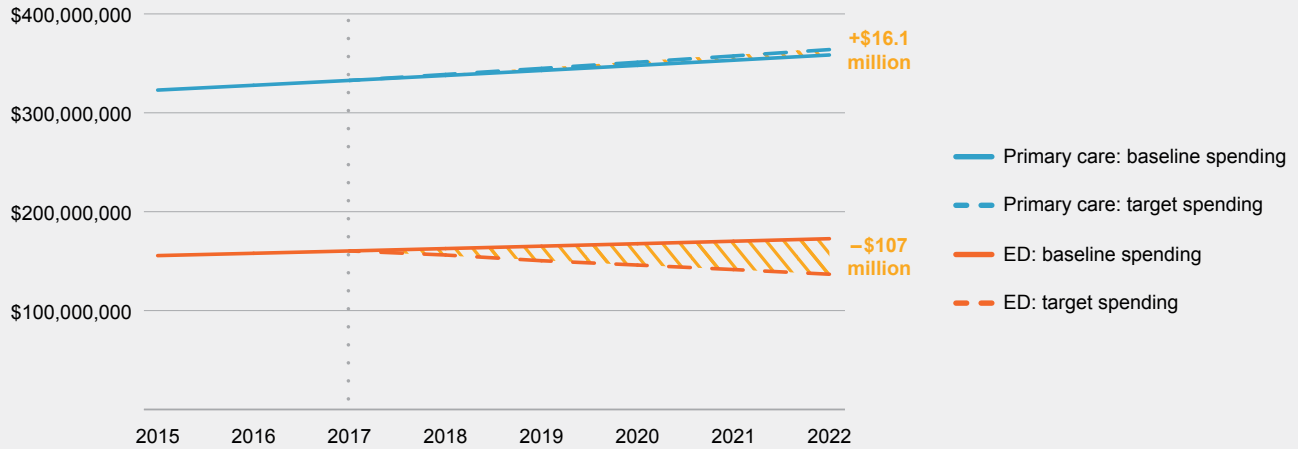
Five-Year Savings Estimate (2018-2022): If Massachusetts met the reduction target for non-emergent ED visits, the net savings would total **\$260.4 million**, calculated by a combination of \$291 million in gross savings offset by \$31 million in new spending on visits in alternative care settings. If Massachusetts met the reduction target for primary care treatable ED visits, the net savings would total **\$91.3 million**, calculated by a combination of \$107 million in gross savings offset by \$16 million in new primary care spending. If Massachusetts met both reduction targets for reducing avoidable ED visits, the combined savings would be **\$351.7 million**.

SAVINGS FROM REDUCING AVOIDABLE EMERGENCY DEPARTMENT (ED) USE (NON-EMERGENT VISITS)



	2018	2019	2020	2021	2022	TOTAL
Commercial savings	\$10,052,978	\$20,407,546	\$31,070,489	\$42,048,728	\$53,349,324	\$156,929,066
MassHealth savings	\$6,630,159	\$13,459,222	\$20,491,666	\$27,732,055	\$35,185,045	\$103,498,147
Net savings	\$16,683,137	\$33,866,769	\$51,562,155	\$69,780,783	\$88,534,369	\$260,427,213

SAVINGS FROM REDUCING AVOIDABLE EMERGENCY DEPARTMENT (ED) USE (PRIMARY CARE TREATABLE VISITS)



	2018	2019	2020	2021	2022	TOTAL
Commercial savings	\$3,594,190	\$8,808,508	\$12,576,721	\$16,455,999	\$20,448,826	\$61,884,244
MassHealth savings	\$1,884,879	\$3,826,305	\$5,825,549	\$7,883,910	\$10,002,711	\$29,423,355
Net savings	\$5,479,069	\$12,634,813	\$18,402,271	\$24,339,909	\$30,451,537	\$91,307,599

ESTIMATION METHODS

Baseline: The HPC identified ED visits, urgent care visits, and visits to physicians’ offices and associated spending per visit using the 2015 Massachusetts All-Payer Claims Database (APCD). ED visits were classified as avoidable if they met the Billings algorithm criteria for non-emergent or primary care treatable visits.³ The HPC projected the cost of an ED visit and the costs of visits to urgent care centers and physicians’ offices using average observed growth in professional spending from 2014 to 2016. The number of avoidable ED visits was assumed to remain constant between 2016 and 2022.

Non-emergent: For the reduction in non-emergent ED visits target scenario, the HPC reduced the number of non-emergent ED visits by a linearly increasing number each year to achieve a two-thirds reduction in non-emergent visits by 2022. The HPC assumed half of these avoided visits were diverted to a lower-acuity setting. The HPC used the cost of an urgent care visit as an approximate cost for these diverted visits, since some might occur at lower-cost retail clinics and some might occur at physicians’ offices.

Primary Care Treatable: For the substitution of primary care visits for primary care treatable ED visits target scenario,

the HPC reduced the number of primary care treatable ED visits by a linearly increasing number each year to achieve a 20% reduction by 2022. The HPC used the average cost of visits to physicians’ offices, retail clinics, and urgent care centers observed in the data for these substituted visits. ■

ENDNOTES

- 1 The HPC used the NYU Center for Health and Public Service Research Billings algorithm’s categorization of ED visits. The Billings algorithm uses the patient’s primary diagnosis to categorize a visit into broad categories: emergent, non-emergent (a patient’s initial complaint, presenting symptoms, vital signs, medical history and age indicated that immediate medical care was not required in 12 hours), and emergent, primary care treatable (treatment was required within 12 hours, but care could have been provided effectively and safely in a primary care setting). Behavioral health-related visits and injuries are identified by the algorithm, but are not classified into any of these category types. HPC considered non-emergent and emergent, primary care treatable visits “avoidable.”
- 2 Health Policy Commission. 2016 Cost Trends Report. 2017 Feb.
- 3 These were based on ICD-9 codes. Since the data were switched over to ICD-10 coding starting with the last quarter of 2015, the HPC used only the first 9 months of ED visits in the data as the basis for the estimates.

SCENARIO #6:

\$230.5 M

NET SAVINGS

LIMIT GROWTH IN PRESCRIPTION DRUG PRICES

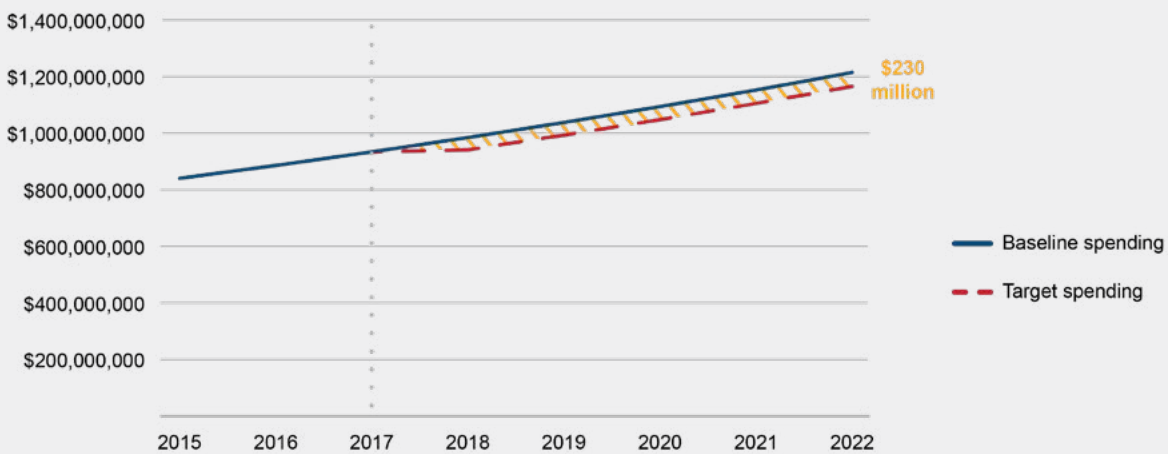
Policy Issue: Prescription drug spending represented the fastest growing category of care in 2015 and 2016 in Massachusetts, with 7.2% and 6.1% growth net of rebates in each year, respectively. Growth in prescription drug spending alone accounted for roughly one-third of Massachusetts per capita spending growth in 2014 and 2015. Much of this spending growth is driven by large price increases for brand-name drugs such as Mylan’s EpiPen which increased from \$244 in 2012 to \$362 per pack in 2014 in Massachusetts.¹ Nationally, prices for the most commonly used brand-name drugs increased 164% between 2008 and 2015.²

In the 2017 Cost Trends Report, the HPC recommended cost containment strategies such as enhancing transparency of drug prices and using value-based benchmarks. Here, the HPC estimates potential five-year savings that could be achieved if the Commonwealth succeeds in curbing growth in prescription drug prices in accordance with overall cost growth targets.

Reduction Target: Limit growth of prescription drug prices to 1.55%.

Five-Year Savings Estimate (2018-2022): If Massachusetts restrains prescription drug price growth, it would result in potential five-year savings of **\$230.5 million**.

SAVINGS FROM LIMITING GROWTH IN PRESCRIPTION DRUG PRICES TO 1.55%



	2018	2019	2020	2021	2022	TOTAL
Net savings	\$43,366,003	\$44,517,093	\$46,037,453	\$47,357,490	\$49,233,591	\$230,511,630

ESTIMATION METHODS

Baseline: Using data from Massachusetts' three largest commercial insurers in the Massachusetts All-Payer Claims Database (APCD), the HPC identified a list of commonly used prescription drugs in 2013. The HPC then matched drugs that appeared in the three years of available data, 2013 to 2015, and included only those that comprised the top 50% of total spending for 2013. To develop the baseline, the HPC assumed the prices of these drugs would grow by an aggregate volume-weighted growth rate of 3.8% per year between 2016 to 2022, based on the three-year average drug price growth between 2014 and 2017, according to the Altarum Institute.³ Price growth for each individual drug was modeled to vary according to the distribution of drug price growth observed between 2013 and 2015. The HPC assumed the volume of this set of drugs would increase 1.55% per year.

Target: The HPC set a goal of 3.1% total drug spending growth, divided evenly between volume growth and price growth. In accordance with this target, the HPC limited annual price growth of any given drug to 1.55%. ■

ENDNOTES

- 1 Massachusetts Health Policy Commission: 2016 Annual Cost Trends Report
- 2 Kesselheim, A. et al. The High Cost of Prescription Drugs in the United States: Origins and Prospects for Reform. JAMA. 2016.
- 3 Altarum Institute. Health Sector Economic Indicators: Insights from Monthly National Health Spending Data Through December 2017. [https://altarum.org/sites/default/files/uploaded-related-files/SHSS-Price-Brief February 2018 0.pdf](https://altarum.org/sites/default/files/uploaded-related-files/SHSS-Price-Brief%20February%202018%200.pdf)

\$1.06 B

NET SAVINGS

SCENARIO #7:

REIMBURSE HOSPITAL OUTPATIENT CARE AT A SITE-NEUTRAL RATE

Policy Issue: Hospital outpatient departments (HOPDs) provide a range of clinical services, from simple to complex, and many of these services can be performed in less expensive non-HOPD settings, such as physicians' offices and freestanding imaging centers. Prior research by the HPC has found that Massachusetts uses hospital outpatient departments much more than the rest of the nation. In addition, hospital outpatient spending continues to grow rapidly in Massachusetts. In 2016, hospital outpatient spending represented the fastest growing category of commercial spending, growing by 5.5% per member.

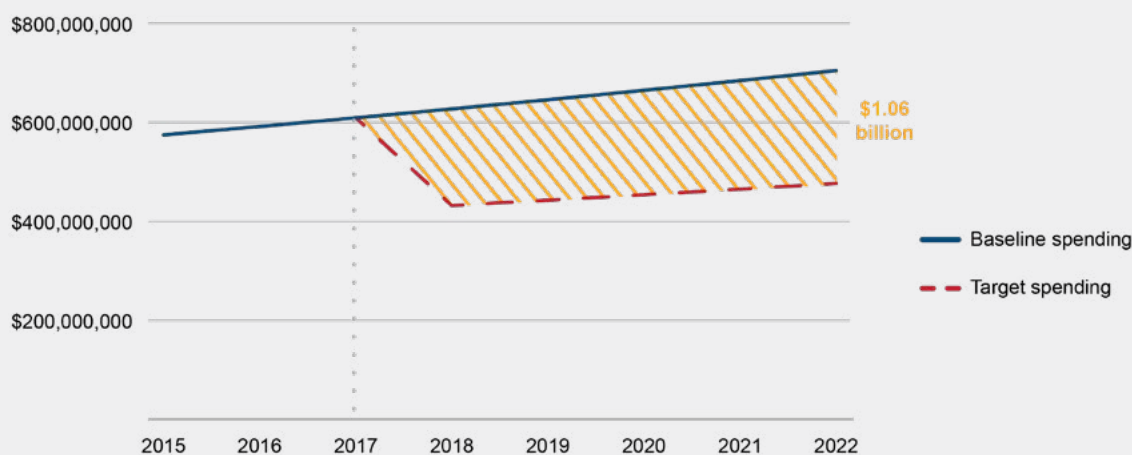
Shifts in setting of care from non-hospital to hospital outpatient settings can increase costs, because prices for the

same service in HOPDs – with both a professional fee and a facility fee – are generally significantly higher than in non-HOPD settings. In the 2017 Cost Trends Report, the HPC presented differences in prices for select procedures in HOPD and non-HOPD settings. Substantial savings could be achieved by implementing site-neutral payments for select outpatient services.¹

Target: Reimburse select outpatient procedures at a site-neutral rate, starting in 2018.

Five-Year Savings Estimate (2018-2022): If Massachusetts implemented site-neutral payments it would result in potential five-year savings of **\$1.06 billion**.

SAVINGS FROM REIMBURSING HOSPITAL OUTPATIENT CARE AT A SITE-NEUTRAL RATE



	2018	2019	2020	2021	2022	TOTAL
Net savings	\$195,132,039	\$202,841,187	\$210,830,830	\$219,110,675	\$227,690,801	\$1,055,605,532

ESTIMATION METHODS

Baseline: Using the 2015 Massachusetts All-Payer Claims Database, the HPC calculated the average commercial prices of 19 “shoppable”² outpatient procedures that can be delivered in HOPDs and in non-HOPD settings, by provider organization.³ Baseline spending in 2015 was calculated by multiplying the volume of procedures delivered in HOPD settings by the average HOPD price and the non-HOPD volume by the average non-HOPD price for each provider organization.

To project baseline spending, the HPC assumed constant utilization rates from 2015 to 2022. Price per procedure was projected using average HOPD and professional growth rates from the Center for Health Information and Analysis (CHIA) from 2013 to 2016.⁴

Target: The HPC set the potential site-neutral rate as each provider organization’s respective non-HOPD price. Target spending was calculated by multiplying the total volume (HOPD and non-HOPD) of each procedure at each provider group by its site-neutral rate. ■

ENDNOTES

- 1 <https://www.healthcarediver.com/news/anthem-will-no-longer-pay-hospitals-for-outpatient-mris-ct-scans/503706/>
- 2 White C, Eguchi M. Reference pricing: a small piece of the health care price and quality puzzle. National Institute for Health Care Reform. 2014 Oct 1.
- 3 The HPC analyzed data from the three largest commercial payers in the 2015 Massachusetts All Payer Claims Database, Blue Cross Blue Shields of Massachusetts, Harvard Pilgrim Health Care, and Tufts Health Plan. The data were limited to patients attributed to the 14 largest provider organizations in Massachusetts using the HPC’s patient attribution methodology. For more information, refer to the Cost Trends Report 2017 Technical Appendix B3: Provider Organization Performance Variation.
- 4 Center for Health Care Information and Analysis Annual Report Total Medical Expenditure databooks, 2016 and 2017

ACKNOWLEDGMENTS

HPC BOARD

Dr. Stuart Altman
Chair

Dr. Wendy Everett
Vice Chair

Dr. Donald Berwick

Mr. Martin Cohen

Dr. David Cutler

Mr. Timothy Foley

Dr. John Christian “Chris” Kryder

Mr. Richard Lord

Mr. Renato “Ron” Mastrogiovanni

Secretary Michael Heffernan
Administration and Finance

Secretary Marylou Sudders
Health and Human Services

POLICY BRIEF PREPARED BY

Ms. Rose Kerber
Senior Research Associate, Research and Cost Trends

Dr. David Auerbach
Director, Research and Cost Trends

WITH GUIDANCE FROM

Mr. David Seltz
Executive Director

Ms. Coleen Elstermeyer
Deputy Executive Director

Ms. Lois H. Johnson
General Counsel

ABOUT THE HEALTH POLICY COMMISSION

The Massachusetts Health Policy Commission (HPC), established in 2012, is an independent state agency charged with monitoring health care spending growth in Massachusetts and providing data-driven policy recommendations regarding health care delivery and payment system reform.

The agency’s main responsibilities include setting the health care cost growth benchmark; setting and monitoring provider and payer performance relative to the health care cost

growth benchmark; creating standards for care delivery systems that are accountable to better meet patients’ medical, behavioral, and social needs; analyzing the impact of health care market transactions on cost, quality, and access; and investing in community health care delivery and innovations.

For more information about the HPC, visit www.mass.gov/hpc.