

2018 ANNUAL HEALTH CARE

COST TRENDS

REPORT

CHARTPACK

INTRODUCTION

The Massachusetts Health Policy Commission (HPC), established in 2012, is charged with monitoring health care spending growth in Massachusetts and providing data-driven policy recommendations regarding health care delivery and payment system reform. Consistent with this mandate, the HPC's annual Cost Trends Report presents an overview of trends in health care spending and delivery in Massachusetts, evaluates progress in key areas, and makes recommendations for strategies to increase quality and efficiency.

The 2018 report includes material in two publications, a narrative written report and a chartpack. The written report examines the state's health care spending growth relative to the benchmark and discusses trends and levels of health care spending in Massachusetts and the nation overall; explores variation in hospitals' rates of admitting patients from the ED to the inpatient setting for particular conditions; examines use of low value services in the Commonwealth; estimates sources of spending variation among provider groups for particular subgroups of similar patients; and analyzes levels and growth in prices in both the commercial sector and relative to Medicare prices for the same procedures. It also contains the HPC's recommendations for market participants, policymakers, and government agencies.

This chartpack presents updated results in priority areas of focus for health system improvement. The chartpack is divided into five sections: Hospital Utilization, Post-Acute Care, Alternative Payment Methods, Total Medical Expenses by Provider Group, and Small Group Insurance.

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HOSPITAL UTILIZATION

INTRODUCTION

HOSPITAL UTILIZATION

While Massachusetts has consistently ranked highly compared to other states on metrics such as health care access, the Commonwealth Fund's Scorecard on State Health System Performance recently ranked Massachusetts 29th in the nation for avoidable hospital use and costs.¹ In previous cost trends reports, the Massachusetts Health Policy Commission (HPC) has shown that hospital use in Massachusetts is higher than the national average and a larger share of inpatient care is delivered by higher-cost academic medical centers. The HPC has recommended action to reduce unnecessary hospital use and shift appropriate inpatient care to community hospitals.

This section reviews recent trends in hospital use and examines several avoidable hospital utilization measures, including avoidable emergency department (ED) use and readmissions. It also examines the Commonwealth's progress on directing appropriate inpatient care to community hospitals.

¹ Radley DC, McCarthy D, Hayes SL. 2018 Scorecard on state health system performance. The Commonwealth Fund. May 2018. Available at: <https://interactives.commonwealthfund.org/2018/state-scorecard/> (Accessed Oct 2018).

KEY FINDINGS

HOSPITAL UTILIZATION

The gap between Massachusetts' higher Medicare readmission rates and the nation continues to widen. All-payer readmission rates in Massachusetts showed no improvement in 2016 and a small increase in 2017.

Per-capita inpatient use grew among MassHealth members from 2014 to 2017 but dropped among commercially-insured members.

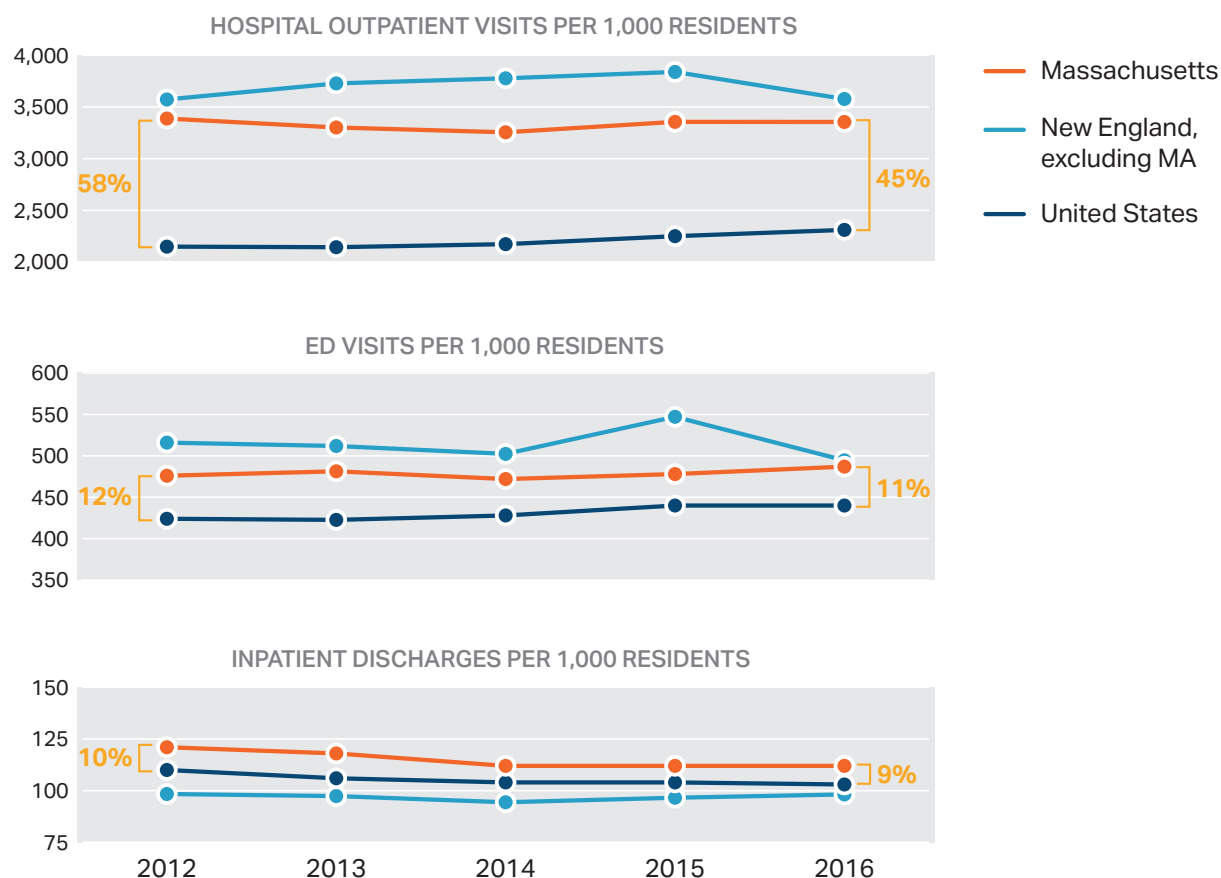
Massachusetts continues to have higher hospital utilization than the U.S. across inpatient, outpatient, and ED services, although the gap has narrowed in recent years.

Despite substantial progress from 2011 to 2014, the reduction in Massachusetts' inpatient use has stalled.

Rates of preventable inpatient admissions varied almost three-fold across regions in Massachusetts in 2017.

The share of low-acuity, community-appropriate inpatient care provided in community hospitals, rather than teaching hospitals or academic medical centers, increased slightly in 2016 and 2017, an improvement from downward trends in previous years.

HOSPITAL USE IN MASSACHUSETTS, NEW ENGLAND, AND THE U.S., 2012 – 2016



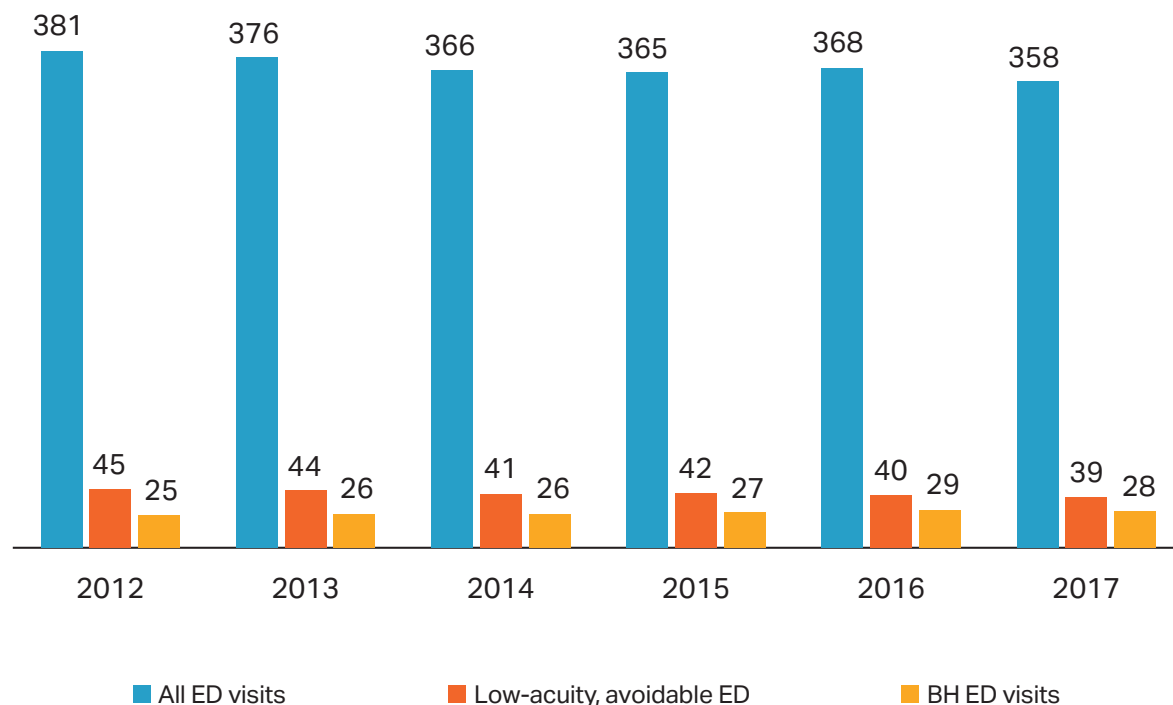
Massachusetts continues to have higher utilization of hospital inpatient, outpatient, and ED services relative to the U.S. However, between 2012 and 2016, the gap for each metric narrowed. This was particularly true for hospital outpatient visits, for which the difference was reduced by 13 percentage points over that time period.

The light blue line shows the New England average, not including Massachusetts. In ED and hospital outpatient visits, the Commonwealth has somewhat lower utilization than its regional neighbors. However, Massachusetts has a higher rate of inpatient visits than the rest of New England.

NOTES: Data are for community hospitals as defined by Kaiser Family Foundation, which represent 85% of all hospitals. Federal hospitals, long term care hospitals, psychiatric hospitals, institutions for the intellectually disabled, and alcoholism and other chemical dependency hospitals are not included. New England includes Connecticut, Maine, New Hampshire, Rhode Island and Vermont. Massachusetts is excluded from the New England category.

SOURCES: Kaiser Family Foundation State Health Facts, accessed Dec 2018

ALL ED VISITS, LOW-ACUITY AVOIDABLE ED VISITS, AND BEHAVIORAL HEALTH ED VISITS PER 1,000 RESIDENTS, 2012 – 2017



ED utilization in general, and low-acuity avoidable ED visits in particular, may indicate inefficient hospital use and poor access to primary care and other health care resources in a community.

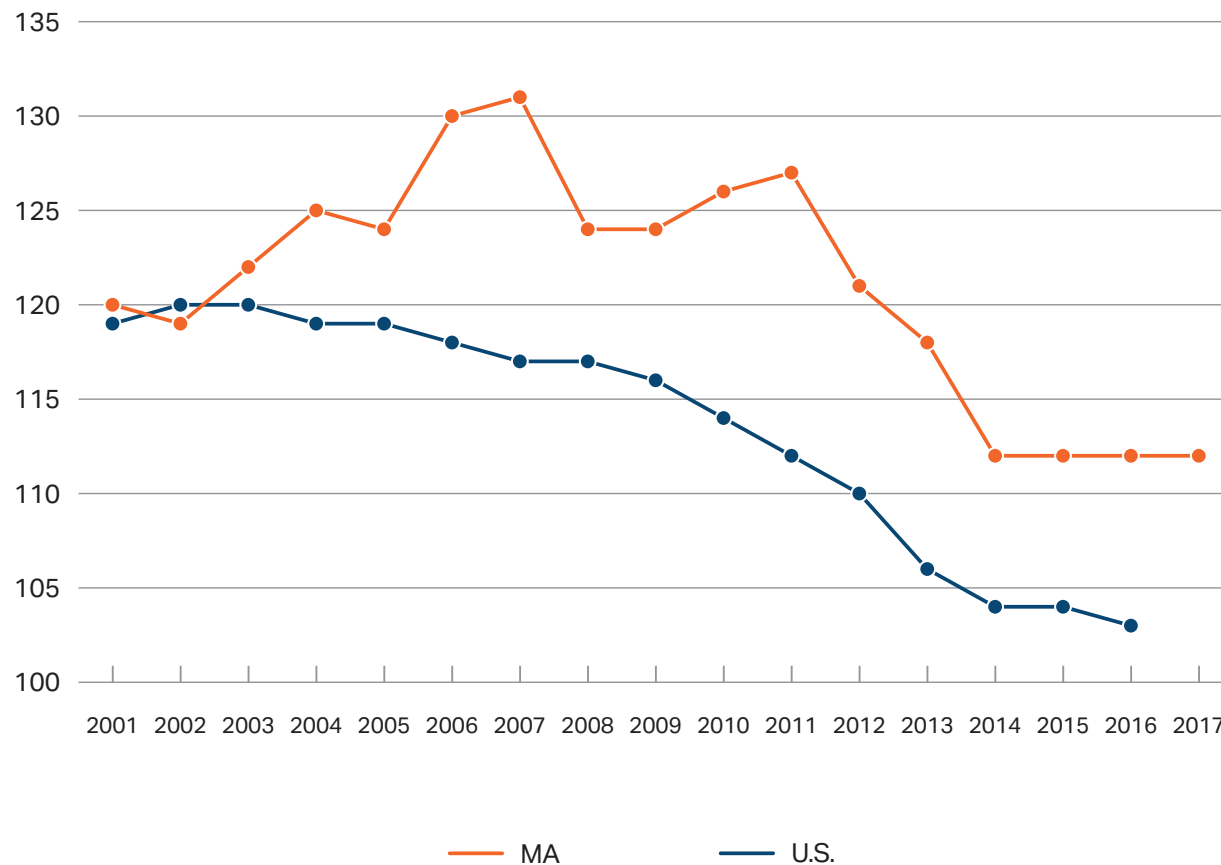
Between 2012 and 2017, ED visits per 1,000 residents declined 6%, with a nearly 3% decline between 2016 and 2017.

Low acuity, avoidable ED visits declined 12% between 2012 and 2017, while behavioral health-related ED visits increased 14% between 2012 and 2017, but declined by 1% from 2016 to 2017.

NOTES: Low-acuity avoidable ED visits are based on the Medi-Cal avoidable ED visit definition, a conservative definition that may under-report avoidable ED utilization. Behavioral health ED visits were identified based on principal diagnosis using the Clinical Classifications Software (CCS) diagnostic classifications.

SOURCES: HPC analysis of Center for Health Information and Analysis Emergency Department Database, 2012 - 2017

INPATIENT HOSPITAL DISCHARGES PER 1,000 RESIDENTS IN MASSACHUSETTS AND THE U.S., 2001 – 2017



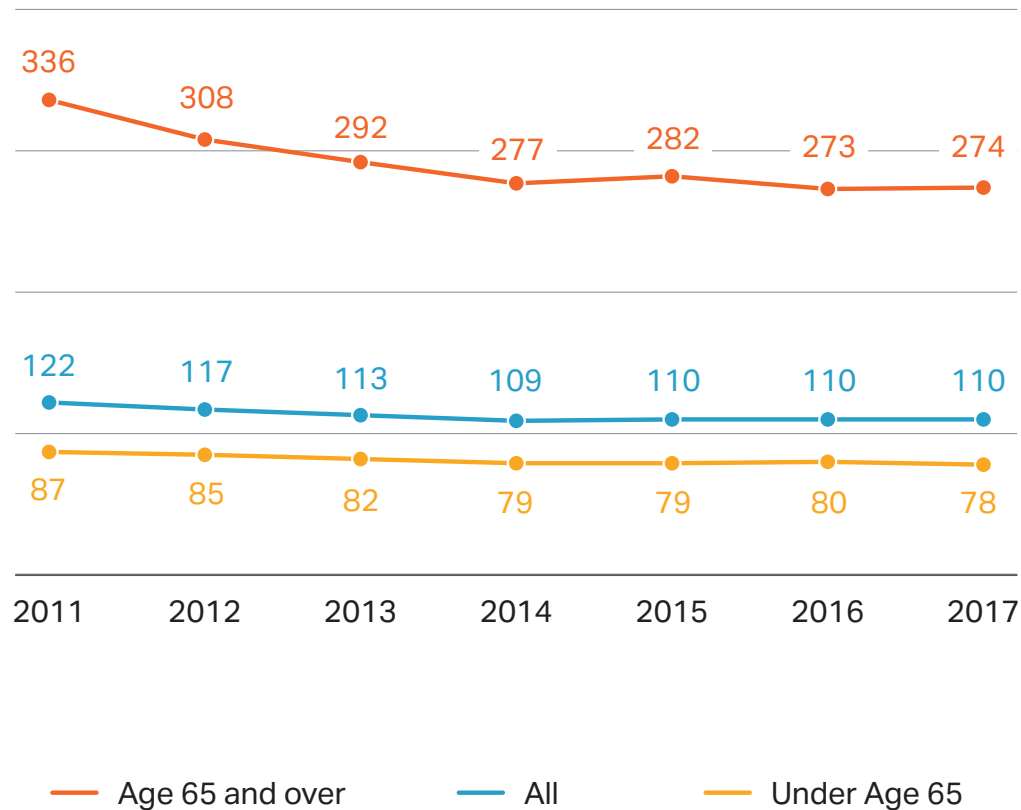
After declining from 2011 to 2014, Massachusetts inpatient hospital use has remained stable since 2014, while the rate continues to decline in the U.S.

In 2016, the number of inpatient hospital discharges per 1,000 residents was about 8.7% higher in Massachusetts compared to the national average.

NOTES: U.S. data include Massachusetts. Massachusetts' 2017 data is based on HPC's analysis of Center for Health Information and Analysis discharge data.

SOURCES: Kaiser Family Foundation analysis of American Hospital Association data (U.S., 2001-2016), HPC analysis of Center for Health Information and Analysis Hospital Inpatient Database (MA, 2017)

INPATIENT DISCHARGES PER 1,000 RESIDENTS BY AGE GROUP, 2011 – 2017



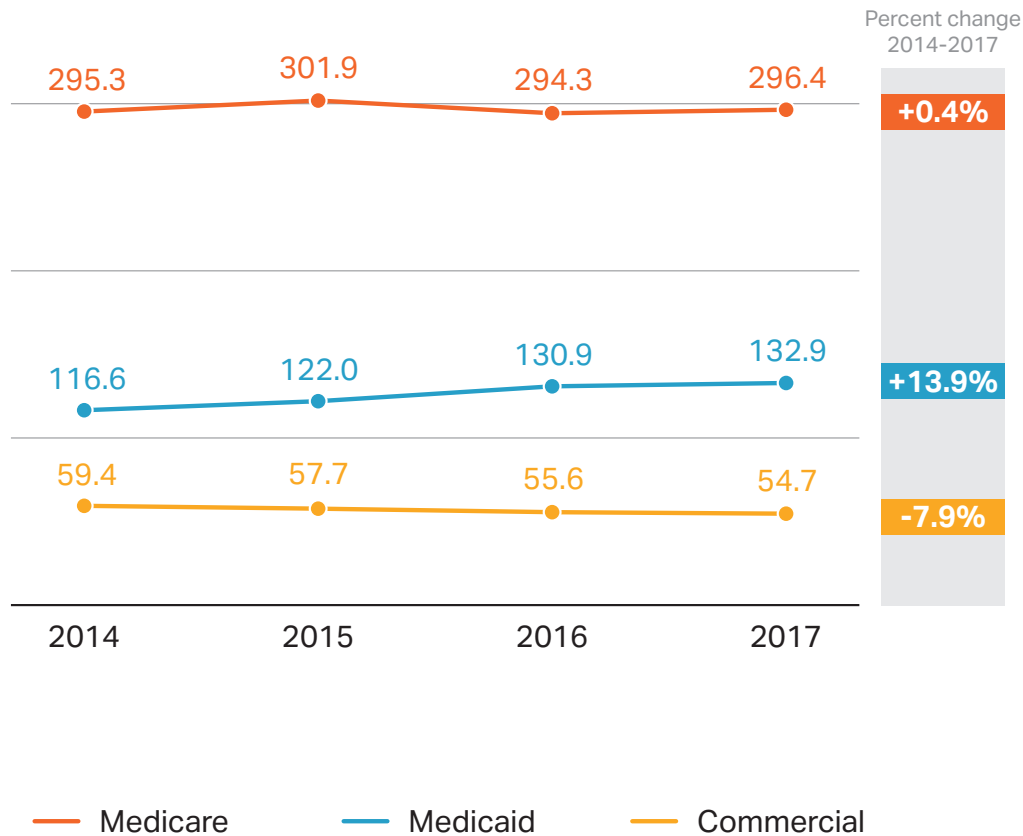
While the overall rate of inpatient hospital utilization has been flat in recent years, underlying trends vary by age group, with utilization decreasing for patients age 65 and older between 2011 and 2017.

Approximately 16% of the Massachusetts population is over age 65, but accounted for 40% of inpatient stays in 2017.

NOTES: Out of state residents are excluded from this analysis (representing roughly 6% of all discharges in Massachusetts).

SOURCES: HPC analysis of Center for Healthcare Information and Analysis Hospital Inpatient Discharge Database, 2011 - 2017

INPATIENT DISCHARGES PER 1,000 RESIDENTS BY PAYER, 2014 – 2017



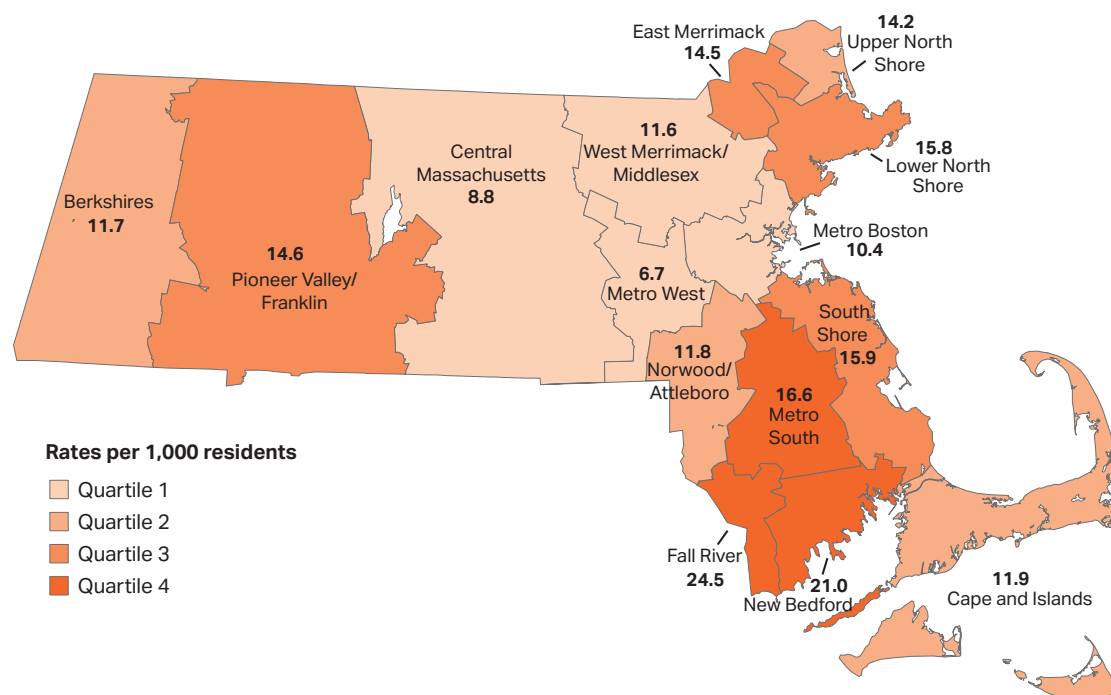
Inpatient hospital utilization trends also vary by payer population.

Since 2014, inpatient hospital use has declined roughly 8% among commercially insured residents, while increasing nearly 14% for those with Medicaid coverage.

NOTES: Roughly 6% of discharges are from out of state residents, which are excluded from this analysis.

SOURCES: HPC analysis of Center for Healthcare Information and Analysis Hospital Inpatient Discharge Database, 2014 – 2017; Center for Healthcare Information and Analysis Enrollment Databook 2018

PREVENTABLE INPATIENT ADMISSION RATES BY HPC REGION, 2017



NOTES: Admissions included in the composite measure include those for short- or long-term complications of diabetes, diabetes with short-term complications, diabetes with long-term complications, uncontrolled diabetes without complications, diabetes with lower-extremity amputation, chronic obstructive pulmonary disease, asthma, hypertension, heart failure, dehydration, bacterial pneumonia, or urinary tract infection.

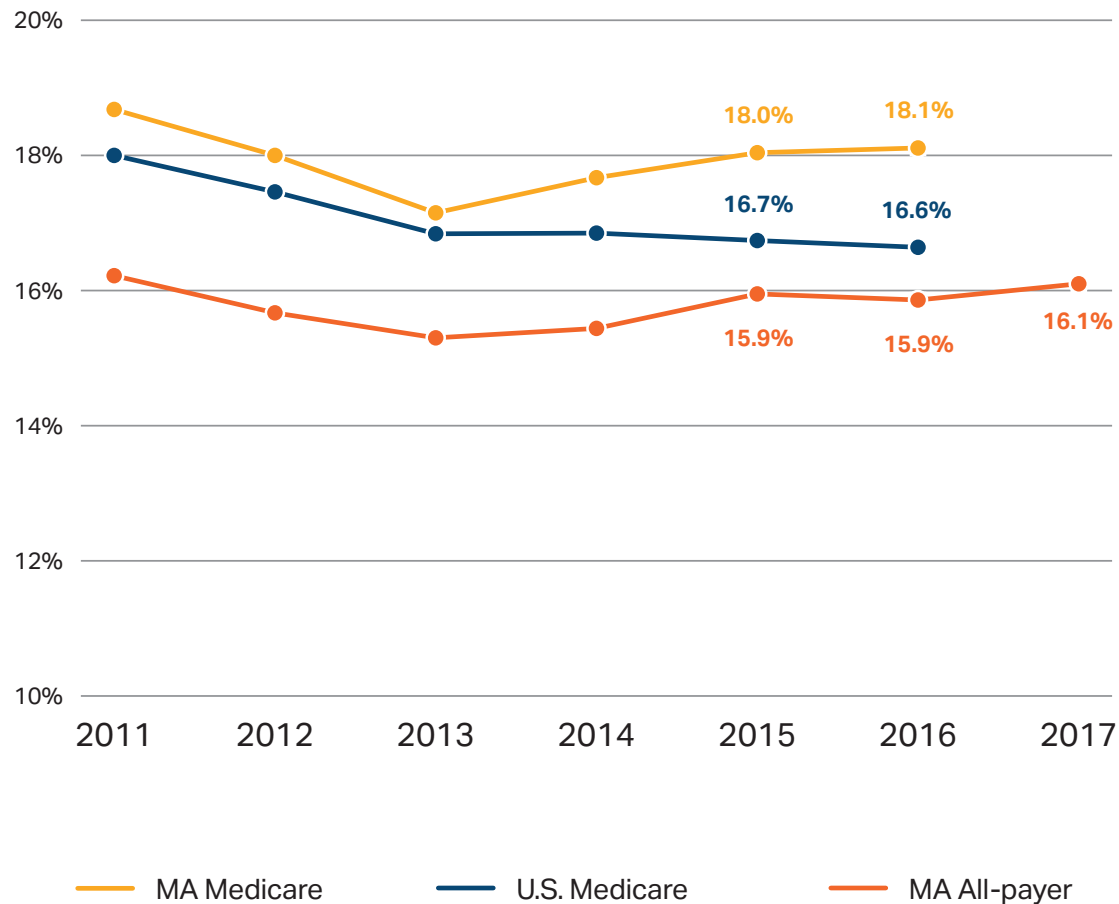
SOURCES: HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database (MA, 2017); composite methodology and U.S. data from Agency for Healthcare Research and Quality, Prevention Quality Indicators data, 2017

The rate of preventable inpatient hospital admissions is a key metric of efficiency and quality. Preventable inpatient admissions in the Commonwealth averaged 12.6 per 1,000 residents in 2017.

However, rates varied almost three-fold across regions in Massachusetts. The three regions with the highest preventable inpatient admission rates in 2017 were Fall River (24.5), New Bedford (21.0), and Metro South (16.6).

Regions with lower preventable inpatient admission rates were concentrated in Metro Boston and Central Massachusetts.

THIRTY-DAY READMISSION RATES, MASSACHUSETTS AND THE U.S., 2011 – 2017



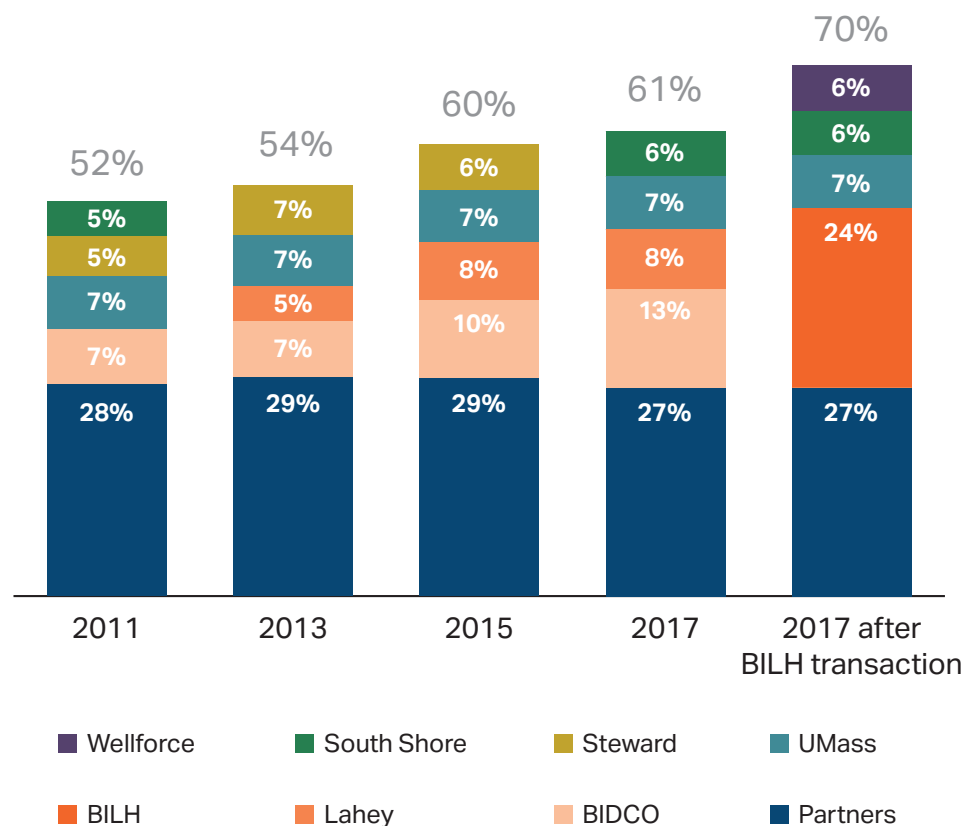
Hospital readmissions within 30 days of a discharge represent potentially avoidable hospital use that can result from poor care coordination across treatment settings and suboptimal discharge planning.

After near convergence with U.S. rates in 2013, Massachusetts' Medicare readmission rates are trending upward while national Medicare readmission rates continue to decline.

All-payer readmission rates in Massachusetts showed no improvement in 2016 and a small increase in 2017.

SOURCES: Centers for Medicare and Medicaid Services (U.S. and MA Medicare), 2011-2016; Center for Health Information and Analysis (all-payer MA), 2011-2017

SHARE OF COMMERCIAL INPATIENT DISCHARGES IN THE FIVE LARGEST HOSPITAL SYSTEMS, 2011 – 2017



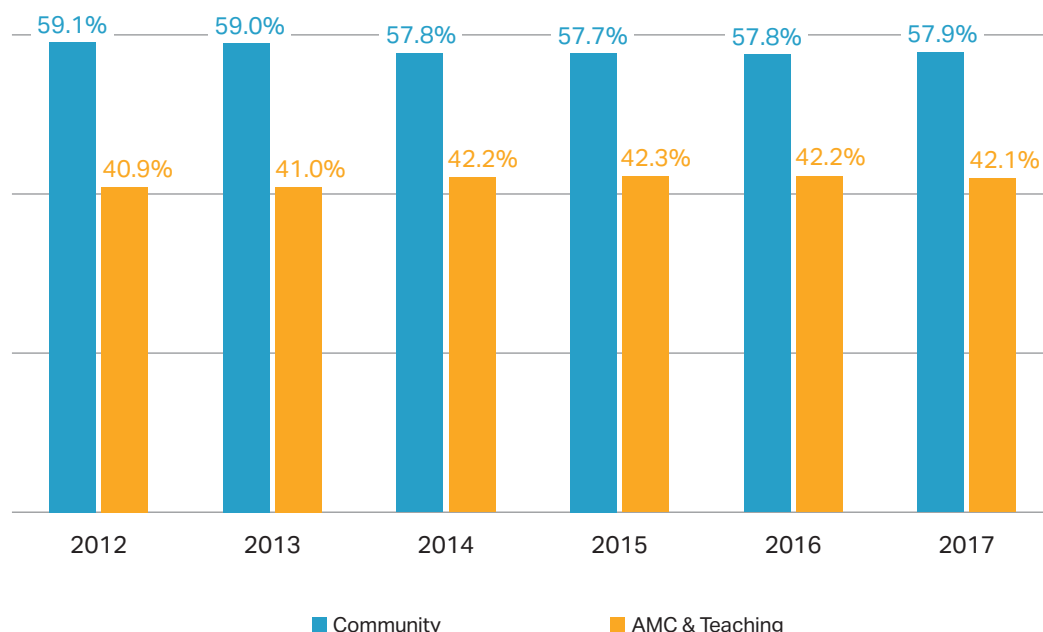
In Massachusetts, inpatient hospital utilization is increasingly provided by a small number of large provider systems. In 2017, 61% of all commercial discharges in the state were from one of the five largest provider systems.

After the formation of Beth Israel Lahey Health (BILH), the top five health systems will account for an estimated 70% of all commercial inpatient stays state-wide.

NOTES: Percentages represent each system's share of commercial inpatient hospital discharges provided in Massachusetts for general acute care services. Discharges for normal newborns, non-acute services, and out-of-state patients are excluded.

SOURCES: HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2011-2017

SHARE OF COMMUNITY APPROPRIATE DISCHARGES BY HOSPITAL TYPE, 2012 – 2017



One strategy to reduce health care spending is to shift community-appropriate inpatient care away from higher-cost academic medical centers and teaching hospitals. The HPC defined community-appropriate discharges as those that are low-acuity, relatively common, and for which practically all community hospitals have the capability to provide the care required.

After declining from 2012 to 2015, the share of community-appropriate inpatient care treated at community hospitals increased slightly in 2016 and 2017, hovering just below 58%.

NOTES: Specialty hospitals are excluded. Out-of-state residents are excluded. Discharges that could be appropriately treated in community hospitals were determined based on expert clinician assessment of the acuity of care provided, as reflected by the cases' diagnosis-related groups (DRGs). Community-appropriate discharges include 94 DRGs, which represent 41% of all hospital discharges in Massachusetts in 2015. The Center for Health Information and Analysis (CHIA) defines community hospitals as general acute care hospitals that do not support large teaching and research programs. Teaching hospitals are defined as hospitals that report at least 25 full-time equivalent medical school residents per one hundred inpatient beds in accordance with Medicare Payment Advisory Commission (MedPAC) guidelines. Academic medical centers are a subset of teaching hospitals characterized by (1) extensive research and teaching programs, (2) extensive resources for tertiary and quaternary care, (3) principal teaching hospitals for their respective medical schools, and (4) full service hospitals with case mix intensity greater than 5% above the statewide average.

SOURCES: HPC analysis of Center for Healthcare Information and Analysis Hospital Inpatient Discharge Database, 2012-2017

POST-ACUTE CARE

INTRODUCTION

POST-ACUTE CARE

Following an acute hospital discharge, patients may receive post-acute care (PAC), such as nursing or rehabilitative services provided at home (home health) or in an institutional setting such as a skilled nursing facility (SNF), inpatient rehabilitation facility (IRF), or long-term care hospital (LTCH).

PAC is a large area of health care spending, representing 16% of Original Medicare spending nationwide and \$1.7 billion in Massachusetts in 2016. Annual PAC spending per resident among Original Medicare beneficiaries in Massachusetts was 18.8% higher (\$303 more) than the U.S. average.¹

The HPC previously found that Massachusetts has higher rates of discharge to institutional PAC and home health than the U.S. average, across all payers. Nationally, almost three quarters of the variation in per beneficiary Medicare spending between hospital referral regions (HRRs) is due to differential spending on PAC.²

Institutional PAC is, on average, considerably more expensive than home health. Choosing the appropriate setting of PAC is important for ensuring value-based care and can have a substantial impact on costs and patient experience.

1 HPC analysis of 2016 CMS Medicare Geographic Variation Public Use File, State/County Report- All Parts A and Parts B Beneficiaries.

2 Newhouse JP et al., editors, Institute of Medicine. Variation in Health Care Spending: Target Decision Making, Not Geography. The National Academies Press; 2013

KEY FINDINGS

POST-ACUTE CARE

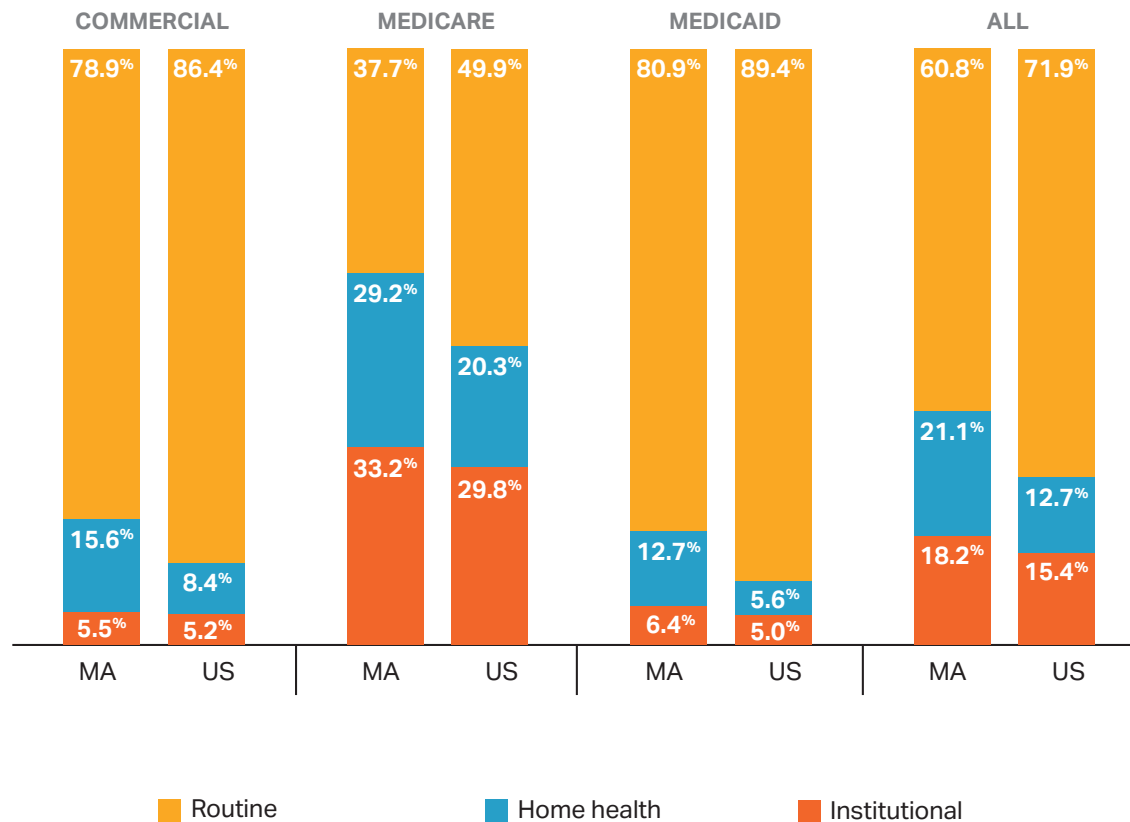
Massachusetts has a higher rate of discharge to institutional PAC and to home health than the national average.

The percentage of Massachusetts hospital discharges to institutional PAC dropped by about 1 percentage point for the second year in 2017, while home health discharges increased by 0.9 percentage points in 2017. These changes reflect a trend that has steadily developed since 2010, while routine discharges have held stable.

In 2017, among the 30 hospitals with the highest discharge volume, Steward St. Elizabeth's Medical Center had the highest discharge rate to institutional PAC (26%), while Brigham and Women's Faulkner Hospital had the lowest rate (13%).

Among this group of hospitals, Lahey Health Beverly Hospital had the highest increase in the rate of discharge to institutional PAC since 2014 (1.9%), and Lahey Health Winchester Hospital had the greatest reduction (2.9%).

PAC DISCHARGES, ALL DRGS, ALL PAYERS, 2015



For all payer types, Massachusetts has a higher rate of discharge to institutional PAC and home health than the U.S. average.

In 2015, Massachusetts had an institutional discharge rate that was 2.8 percentage points higher than the U.S. average and a home health discharge rate that was 8.4 percentage points higher.

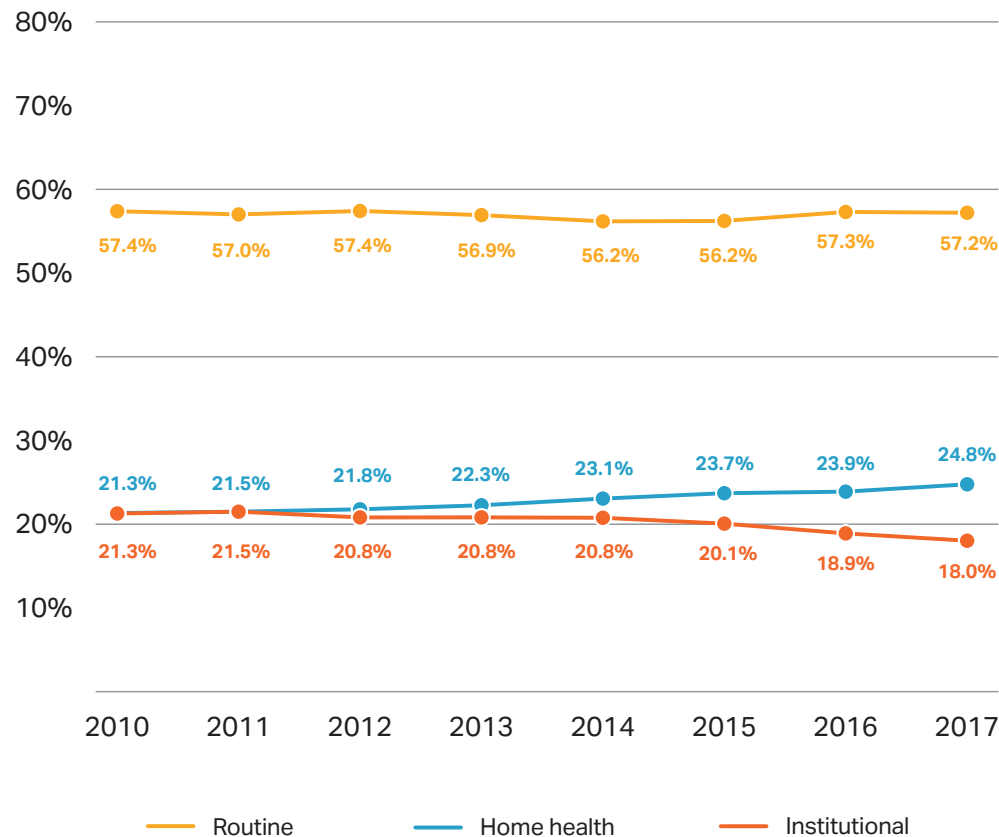
Medicare had the largest differential in 2015, with the Massachusetts rate of discharge to institutional PAC exceeding the national average by 3.4 percentage points.

Patients covered by commercial insurance were nearly twice as likely to be discharged to home health care if they lived in Massachusetts compared to the rest of the nation.

NOTES: Institutional settings include skilled nursing facilities, inpatient rehabilitation facilities, and long-term care hospitals. Routine = discharge to home with no formal post-acute care setting.

SOURCES: HPC analysis of Healthcare Cost and Utilization Project (HCUP) Nationwide Inpatient Sample Survey and State Inpatient Sample, 2015

ADJUSTED PERCENTAGE OF DISCHARGES TO POST-ACUTE CARE, ALL DRGS, 2010 – 2017



The percentage of patients discharged to institutional PAC following a hospitalization dropped by about 1 percentage point for a second year in 2017, accelerating a trend from prior years.

Since 2010, the rate of institutional PAC discharges has dropped by 3.3 percentage points, and nearly two-thirds of the reduction occurred between 2015 and 2017.

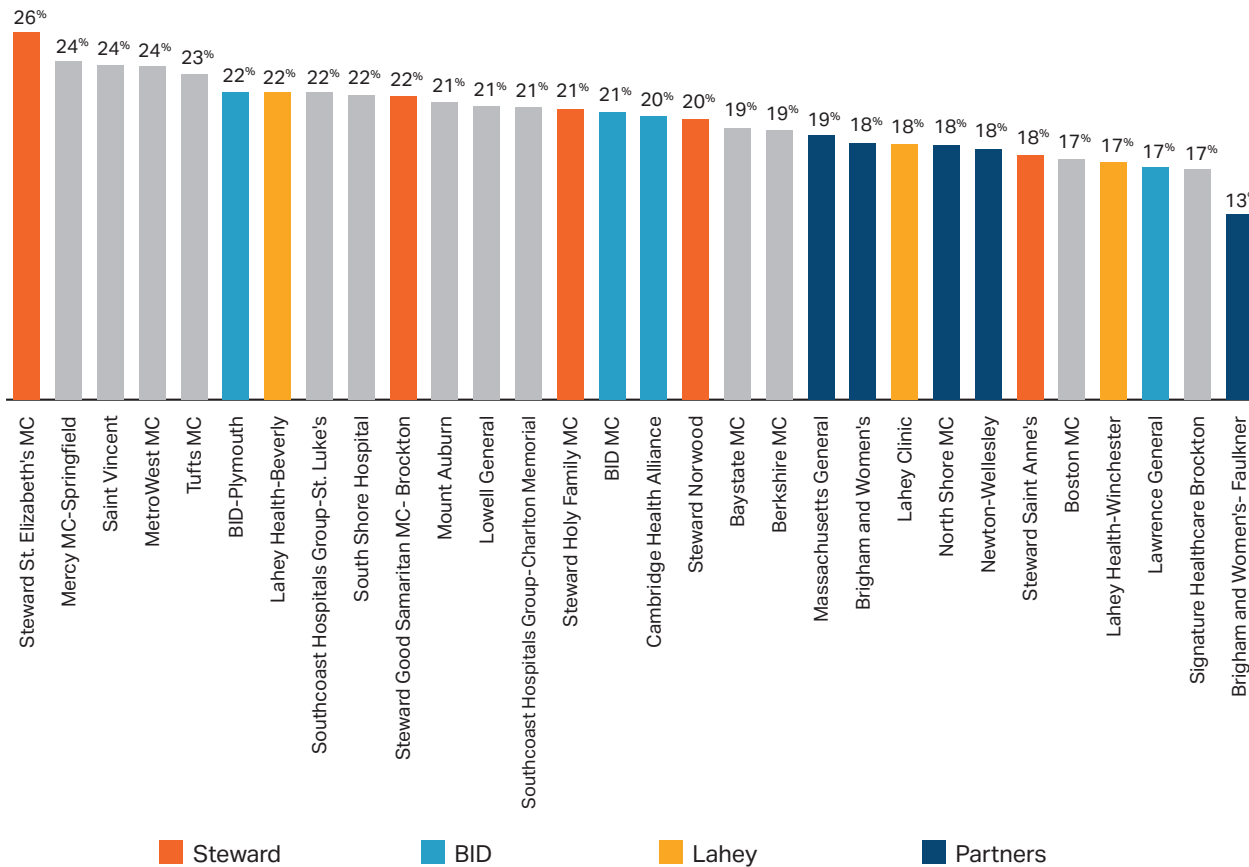
Home health discharges increased by 0.9 percentage points in 2017, reflecting in part a shift from institutional care.

The reduction in institutional PAC discharges is partially driven by changes in discharge patterns for musculoskeletal conditions. The rate of discharge to institutional PAC for these conditions declined by 6.5 percentage points between 2014 and 2017.

NOTES: Out of state residents are excluded. Institutional post-acute care settings include skilled nursing facilities, inpatient rehabilitation facilities, and long-term care hospitals. Rates adjusted using ordinary least squares (OLS) regression to control for age, sex, and changes in the mix of diagnosis-related groups (DRGs) over time. Discharges from hospitals that closed and specialty hospitals, except New England Baptist, were excluded. Several hospitals (UMass Memorial Medical Center, Clinton Hospital, Cape Cod Hospital, Falmouth Hospital, Marlborough Hospital) were excluded due to coding irregularities in the database. Routine = discharge to home with no formal post-acute care setting.

SOURCES: HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2010-2017

ADJUSTED INSTITUTIONAL DISCHARGE RATES FOR 30 HIGHEST VOLUME HOSPITALS, 2017



The rate of discharge to institutional PAC varied significantly across high volume hospitals in Massachusetts, ranging from 13%-26%, even after controlling for patient age, sex, admission source, payer, and diagnosis.

Of the 30 hospitals with the highest discharge volume, Partners HealthCare hospitals had among the lowest adjusted rates of discharge to institutional PAC.

NOTES: Hospital rates have been adjusted for major diagnostic category, age, sex, admission source and primary payer. Several acute care hospitals (UMass Memorial Medical Center, Clinton Hospital, Cape Cod Hospital, Falmouth Hospital, Marlborough Hospital) were excluded due to coding irregularities in the database.

SOURCES: HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2017

CHANGE IN ADJUSTED INSTITUTIONAL DISCHARGE RATE BY HOSPITAL, 2014 – 2017

Each bar reflects the difference, in percentage points, between the average rate of institutional discharge in 2016-2017 and the average rate of institutional discharge in 2014-2015



Among 30 high volume hospitals, only 7 had an increase in their rates of hospitalized patients being discharged to institutional PAC since 2014.

Lahey Health Winchester had the greatest reduction in institutional PAC discharges, with an adjusted institutional discharge rate that was almost 3 percentage points lower in 2016-2017 than in 2014-2015.

Conversely, Lahey Health Beverly had the greatest increase in institutional PAC discharges, with an adjusted institutional discharge rate that was almost 2 percentage points higher in 2016-2017 than in 2014-2015.

NOTES: Hospital rates have been adjusted for major diagnostic category, age, sex, admission source and primary payer.

SOURCES: HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2014-2017

ALTERNATIVE PAYMENT METHODS

INTRODUCTION

ALTERNATIVE PAYMENT METHODS

Alternative payment methods (APMs) are a key strategy to promote high-quality, efficient care and reduce health care costs. Traditional fee-for-service (FFS) payment methods reward providers for the volume of services provided, while APMs, such as global budget contracts and bundled payments, seek to promote value-based care and reduce unnecessary utilization. These types of payments can be used in any type of insurance product. There has been some progress in transitioning to APMs in Massachusetts but the growth in APM adoption has stalled among commercial payers.

Many providers note that operating in an environment where fewer than half of their patients are covered under an APM contract, with the rest paid under traditional FFS, creates conflicting incentives. APMs encourage the reduction of unnecessary utilization but may result in reduced revenue in a FFS environment. 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 the FFS losses.

This section reviews recent trends in the uptake of APMs in Massachusetts, examining the use of APMs by various health plan types: commercial versus public, HMO versus PPO, and local Massachusetts plans versus national insurers.

KEY FINDINGS

ALTERNATIVE PAYMENT METHODS

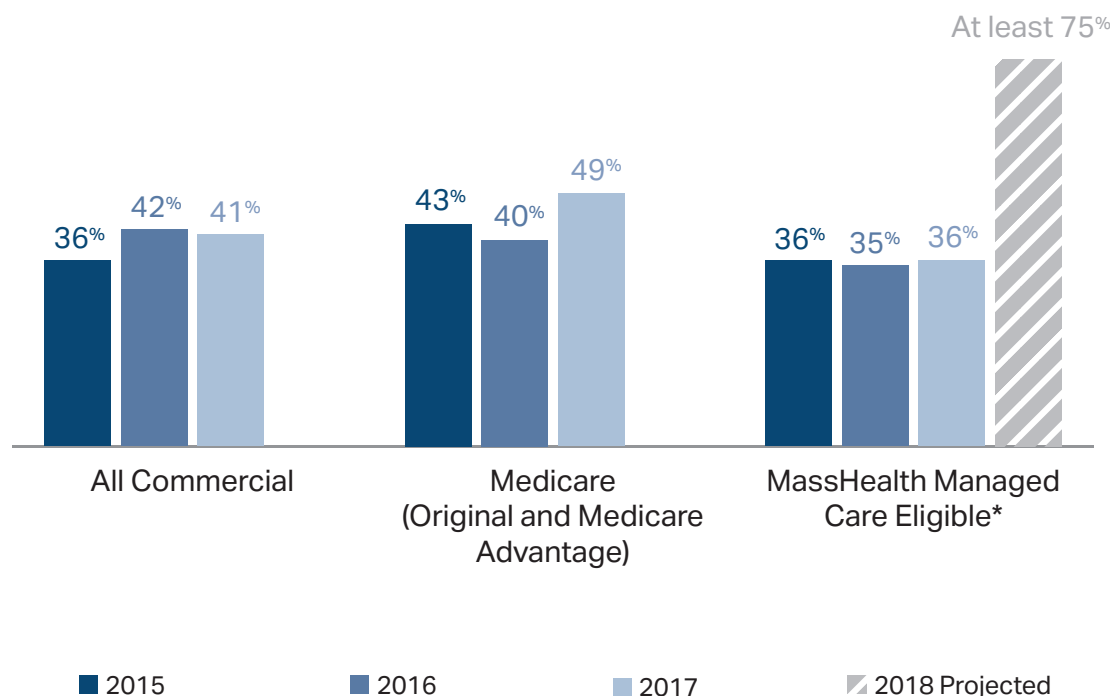
Among payers, MassHealth is projected to lead the state in APM adoption with its implementation of the ACO model for its managed care eligible members. While full data is not yet available, it is estimated that at least 75% of MassHealth managed care eligible members were covered under an APM in 2018.

The overall moderate rate of APM adoption in Massachusetts is particularly driven by low rates of APM use among national insurers operating in the Commonwealth and by low APM use in commercial PPO products. Only 2% of members in national insurance products were covered under an APM, while 28% of members in the PPO products of the top three payers were covered under an APM.

The use of APMs in Medicare plans increased substantially in 2017 from 40% to 49%, as participation in both the Medicare Shared Savings Program and the Next Generation ACO program increased. Participation by Massachusetts providers in the Next Generation ACO program was higher in 2017 than it was in the previous Pioneer ACO program, which ended in 2016.

The rate of APM adoption in commercial products decreased slightly from 42% in 2016 to 41% in 2017, due to a small decline in APM adoption in commercial HMO products. In 2017, 55% of commercial HMO lives were covered under an APM compared to 59% in 2016.

PROPORTION OF POPULATION UNDER APM BY INSURANCE CATEGORY, 2015 – 2017



Use of APMs in commercial insurance declined slightly in 2017, but grew in both Medicaid and Medicare.

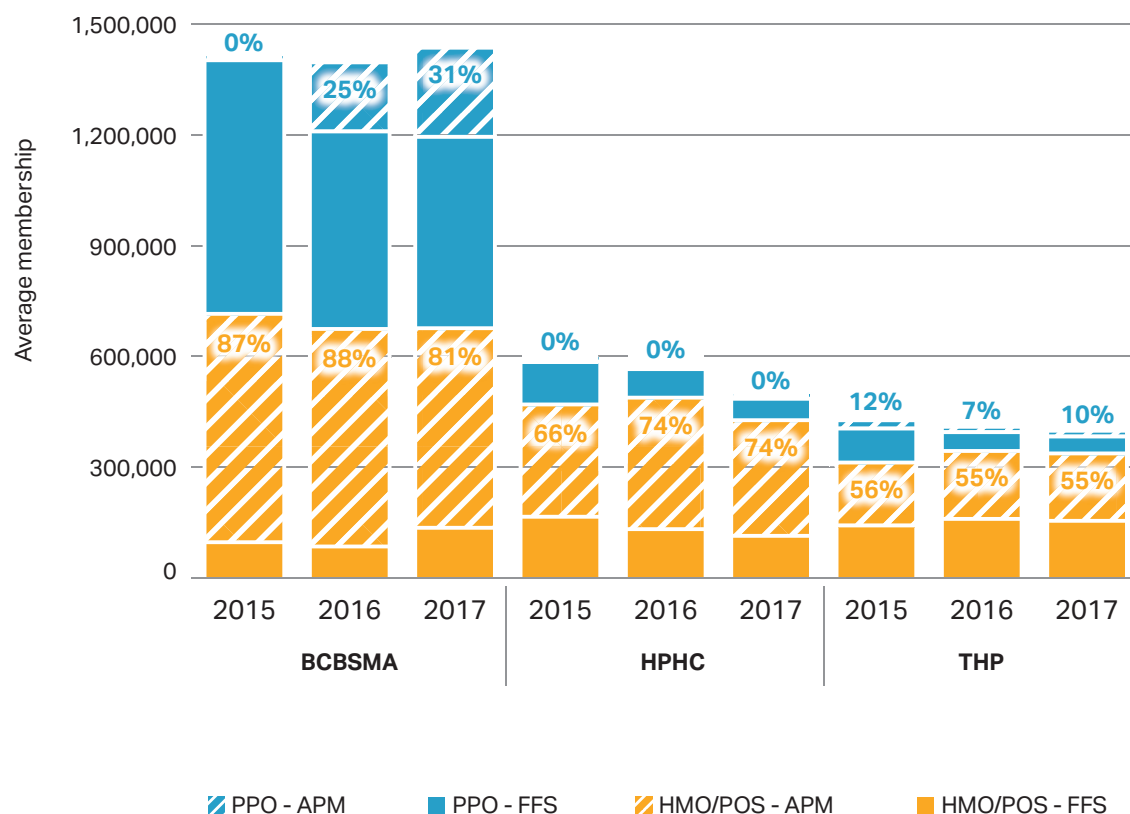
The percentage of commercial members covered by APMs increased from 36% in 2015 to 42% in 2016 but decreased by 1 percentage point in 2017 to 41%.

MassHealth increased the use of APMs in 2017 slightly as it implemented the MassHealth ACO pilot program. With the full implementation of the program in 2018, it is estimated that at least 75% of MassHealth managed care eligible members are now covered in an APM.

Medicare APM coverage rose to 49% in 2017, as additional provider organizations joined the Next Generation ACO program.

SOURCES: HPC analysis of Center for Health Information and Analysis Annual Report APM data book, 2018; Centers for Medicare and Medicaid Services, "Number of ACO Assigned Beneficiaries by County Public Use File," 2015 – 2017; "Medicare Pioneer Accountable Care Organization Model Performance Years 3- 5," 2014 - 2016; "Next Generation ACO Model Financial and Quality Results Performance Years 1 and 2," 2016, 2017; 2018 MassHealth Projection provided by MassHealth

APM ADOPTION BY COMMERCIAL PLAN AND TYPE, 2015 – 2017



In 2017, the percentage of Blue Cross Blue Shield of Massachusetts (BCBSMA) HMO members in APM contracts decreased from 88% to 81%, while APM coverage among those in PPO products continued to rise from 25% to 31%. Over half of BCBSMA's members are in PPO products.

The percentage of Harvard Pilgrim Health Care's (HPHC) HMO members in APM contracts stalled at 74% in 2017, and HPHC has no APM use in their smaller PPO products.

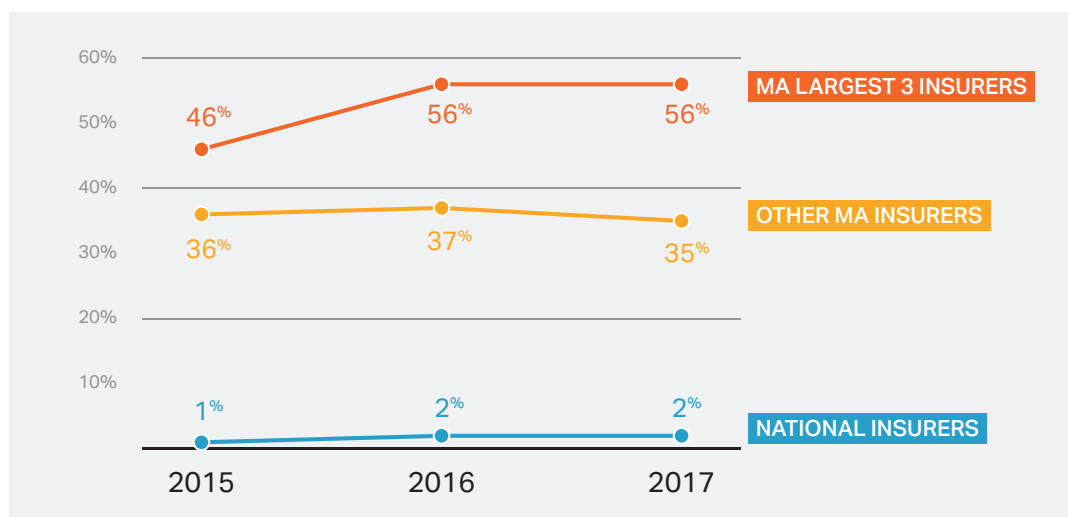
Tufts Health Plan (THP) has a small share of PPO members in APM contracts, but lower use of APMs in their HMOs, compared to other top payers.

Across these three payers overall, 73% of members in an HMO product are covered by an APM, and 28% of members in PPO products are covered by an APM. Across all payers, 55% of commercial HMO lives were covered under an APM in 2017, compared to 59% in 2016.

NOTES: Preferred Provider Organizations = PPO; Health Maintenance Organizations = HMO; Blue Cross Blue Shield of Massachusetts = BCBSMA; Harvard Pilgrim Health Care = HPHC; Tufts health Plan = THP.

SOURCES: HPC analysis of Center for Health Information and Analysis Annual Report APM Databooks, 2018

PROPORTION OF MEMBER MONTHS UNDER APMS BY MASSACHUSETTS AND NATIONAL INSURERS, 2015 – 2017



Among the three largest insurers in Massachusetts, APM adoption increased from 46% in 2015 to 56% in 2017. Smaller Massachusetts-based insurers' APM adoption rates dropped slightly in 2017 to 35%, and APM adoption among national insurers remains very low in Massachusetts, at 2% of members in 2017.

These three insurers lost commercial market share between 2015 and 2017, while other Massachusetts insurers gained market share. The national insurers' share of the commercial Massachusetts market has remained stable at 20%.

Share of Commercial Population

Payer Type	2015	2016	2017
MA Largest 3 Insurers	65%	63%	62%
Other MA Insurers	15%	17%	18%
National Insurers	20%	20%	20%

NOTES: The three largest insurers in Massachusetts include Blue Cross Blue Shield of MA, Harvard Pilgrim Health Plan, and Tufts Health Plan. Other Massachusetts plans include Network Health, BMC HealthNet Plan, Celticare Health Plan, Fallon Community Health Plan, Health New England, Health Plans, Minuteman Health, Neighborhood Health Plan, and UniCare. National insurers include Aetna, CIGNA and United Health Plans.

SOURCES: HPC analysis of Center for Health Information and Analysis Annual Report APM Databook, 2018

TOTAL MEDICAL EXPENSES BY PROVIDER GROUP

INTRODUCTION

TOTAL MEDICAL EXPENSES BY PROVIDER GROUP

This section updates the HPC's previous work highlighting variation in spending for patients attributed to primary care providers (PCPs) of different provider groups.

PCPs, who manage patients across the continuum of care, have considerable influence over where a patient decides to seek secondary care, including specialist visits, diagnostic testing, and hospitalization.

This section presents data on variation in patient spending by provider group using unadjusted total medical expenses (TME) as reported by the Center for Health Information and Analysis (CHIA). TME includes all categories of medical expenses (including patient copays and deductibles) for a given patient in a given year and all non-claims payments (including payments based on spending and quality performance) for any provider that treated that patient in that year, regardless of whether such provider is affiliated with the patient's primary care group.

Unadjusted TME is not adjusted to account for the acuity of the patient population (i.e., health status adjusted). Health status adjusted (HSA) TME, on the other hand, reflects patients' risk scores as calculated by payers (based on patient demographics and diagnoses recorded by providers). Although different payers use different risk adjustment tools, these tools are similar and, by normalizing the risk scores in each payer's network, the HPC created a proxy for combined health status adjusted TME across the three largest commercial payers (Blue Cross Blue Shield of Massachusetts, Harvard Pilgrim Health Care, and Tufts Health Plan).

KEY FINDINGS

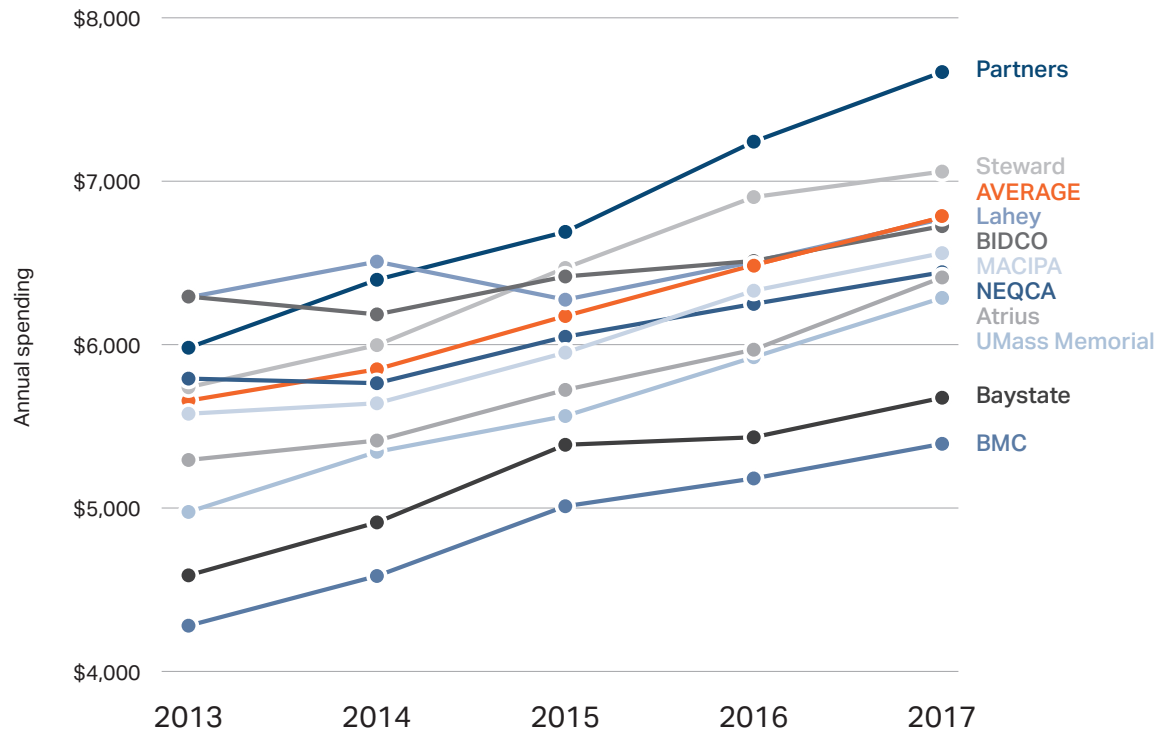
TOTAL MEDICAL EXPENSES BY PROVIDER GROUP

In Massachusetts, unadjusted TME for commercial patients of the 10 largest provider groups has been diverging over time since 2015. Annual spending for patients of Partners Community Physicians Organization (Partners), which had the highest unadjusted TME in 2017, was 13% higher than the average of the 10 groups and 30% higher compared to patients of Boston Medical Center, which had the lowest unadjusted TME in 2017.

Unadjusted TME grew 10% on average for the 10 largest provider groups between 2015 and 2017, while health status adjusted TME grew only 0.5% during the same time period. While there may be some degree of increasing health risk among their attributed patient populations, much of the difference between growth in unadjusted and adjusted TME may reflect changes in diagnostic coding practices, often enabled by electronic medical record systems.

From 2013 to 2017, unadjusted TME increased for all 10 provider groups. Partners had the highest unadjusted TME growth (28%), followed by UMass Memorial (26%).

UNADJUSTED TME BY PROVIDER GROUP, 2013 – 2017



Of the 10 largest provider groups, Partners had the highest unadjusted TME in 2017 at \$7,668 per member per year (PMPY), which was 9% higher than the next highest provider group (Steward) and 13% higher than the average of the 10 groups.

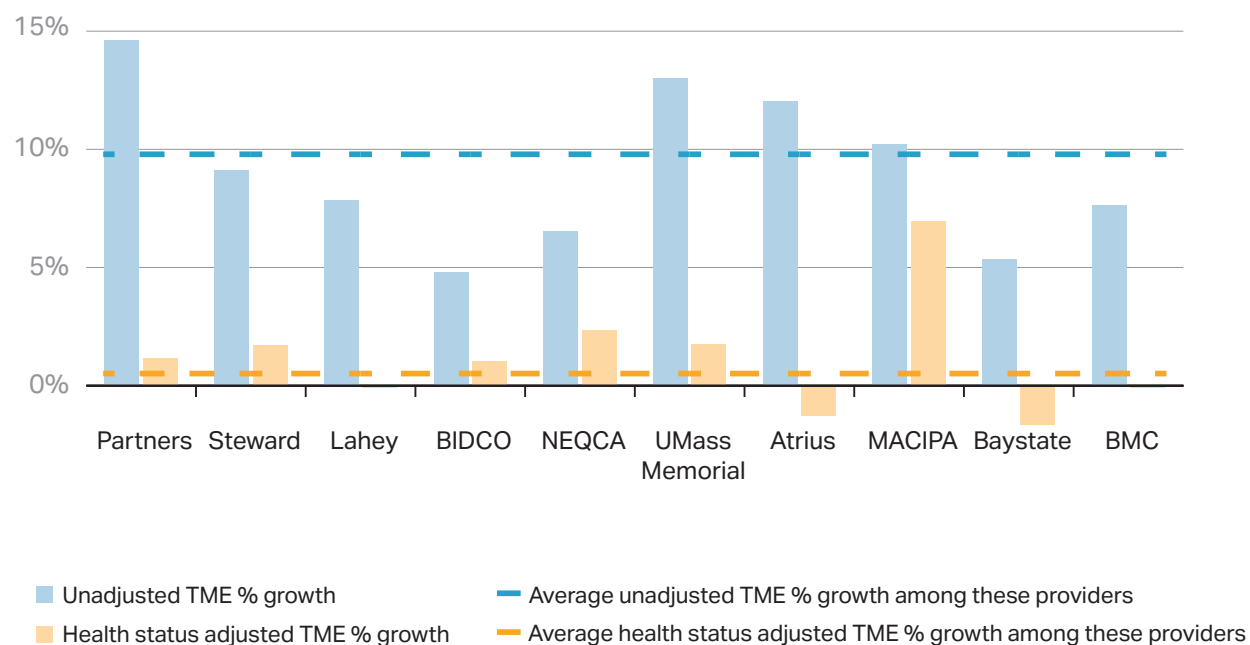
Boston Medical Center (BMC) had the lowest unadjusted TME (\$5,393 PMPY) in 2017, 30% below that of Partners and 20% below the average.

Unadjusted TME converged across the provider groups between 2013 and 2015 and then diverged again between 2015 and 2017.

NOTES: TME = total medical expenses; PCP = primary care provider. Analysis includes 10 largest PCP groups listed herein and three largest commercial payers as identified by the Center for Health Information and Analysis in terms of member months (BCBS, THP, HPHC). Provider groups include Partners Community Physicians Organization (Partners); New England Quality Care Alliance (NEQCA), a corporate affiliate of Wellforce; Beth Israel Deaconess Care Organization (BIDCO); Steward Health Care Network (Steward); Atrius Health (Atrius); Lahey Clinical Performance Network (Lahey); Mount Auburn Cambridge Independent Physician Association (MACIPA); UMass Memorial Medical Group (UMass Memorial); Boston Medical Center Management Services (BMC); Baystate Health Partners (Baystate). PMPY spending equals 12 times PMPM spending as reported by CHIA.

SOURCES: HPC analysis of Center for Health Information and Analysis 2018,2017,2016 Annual Report TME Databooks

UNADJUSTED AND ADJUSTED TME GROWTH BY PROVIDER GROUP, 2015 – 2017



Between 2015 and 2017, unadjusted TME grew 10%, on average, for these top ten provider groups but health status adjusted (HSA) TME grew only 0.5% on average.

The difference between the unadjusted and adjusted growth rates is due to growth in the risk scores for these providers' patients. During this 2015 to 2017 period, risk scores increased by an average of 9.5%.

Risk scores are intended to quantify the expected difference in spending for a given set of patients, relative to a benchmark population, given the diagnoses and demographic characteristics of that set of patients. However, both providers and payers face incentives to increase risk scores.* The extent to which this increase in risk scores reflects changes in coding practices (e.g., documentation of a more extensive set of diagnoses, or coding diagnoses as more complex) or a sicker or older population is not yet clear.

* For example, the Affordable Care Act's risk adjustment methodology redistributes funds from health plans with lower-risk enrollees to plans with higher-risk enrollees in the individual and small group markets. Provider budgets under risk contracts are typically adjusted based on patient risk scores. Provider groups in Massachusetts may be subject to Performance Improvement Plans under Chapter 224 based on their HSA TME.

NOTES: Analysis includes 10 largest PCP groups and three largest commercial payers as identified by the Center for Health Information and Analysis in terms of member months. Because risk adjustment methodology may vary across payers, this graph only includes data from the top three payers which use similar methods (BCBSMA, THP, HPHC) as in the previous exhibit.

SOURCES: HPC analysis of Center for Health Information and Analysis 2018 Annual Report TME Databook

SMALL GROUP INSURANCE

INTRODUCTION

SMALL GROUP INSURANCE

One strategy to strengthen competition within the health care system is to improve the structure of the employer-based health insurance market, particularly for small employers, including by encouraging employers to offer plan choice and by incentivizing employees to choose high-value plans and/or providers.

Small employers (those with fewer than 50 employees) account for 10% of all commercial health insurance enrollees in Massachusetts, and 25% of the fully-insured market.¹ Almost all small employers are fully-insured, meaning they purchase health insurance for a fixed premium and the insurer bears the risk of health costs exceeding the premiums paid. In contrast, larger employers are primarily self-insured, taking on the risk themselves while using insurers as third party administrators to manage benefits, establish networks, and pay providers.

Small employers face unique challenges in providing health insurance to their employees, such as limited administrative capacity and less ability to manage year-to-year volatility in premiums. This section examines recent trends in the health insurance premium costs and offerings for small employers.

¹ Center for Health Information and Analysis Coverage Costs Cost Sharing Databook 2018.

KEY FINDINGS

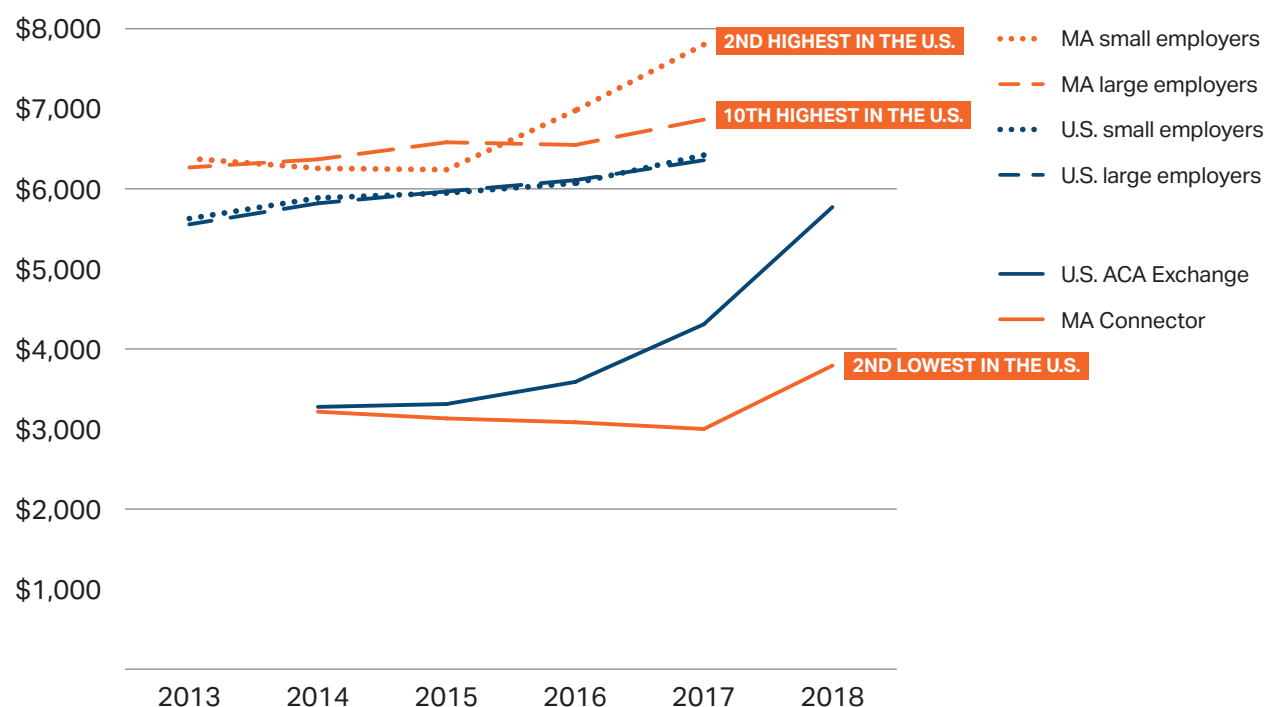
SMALL GROUP INSURANCE

Premiums for health insurance received through employers in Massachusetts remain significantly above the national average. Premiums for those receiving coverage through small employers, in particular, have grown more quickly in 2016 and 2017 and are now the second highest among all states in the U.S., while premiums for those receiving coverage through larger employers have closed the gap with the national average and place Massachusetts 10th highest among states.

Administrative costs as a percent of premium have grown within the merged market (which includes individual and small group purchasers) in recent years in Massachusetts while the number of people receiving insurance through small employers has dropped.

Premiums for plans chosen by enrollees in the Massachusetts Health Connector, which are available to individuals and small employers, remain below premiums for plans chosen by enrollees in the small group insurance market.

ANNUAL AVERAGE PREMIUMS FOR SINGLE COVERAGE IN THE EMPLOYER MARKET AND BENCHMARK PREMIUM IN THE ACA EXCHANGES, MASSACHUSETTS AND THE U.S., 2013 – 2018



NOTES: U.S. data include Massachusetts. Employer premiums are based on the average premiums according to a large sample of employers within each state. Small employers are those with less than 50 employees; large employers are those with 50 or more employees. Exchange data represent the weighted average annual premium for a 40-year-old in the second-lowest silver (Benchmark) plan and do not include any subsidies. These plans have an actuarial value of 70%, compared to 85%-90% for a typical employer plan, and are thus not directly comparable to the employer plans.

SOURCES: Kaiser Family Foundation analysis of premium data from healthcare.gov (marketplace premiums, 2014-2018); US Agency for Healthcare Quality, Medical Expenditure Panel Survey (commercial premiums, 2013-2017)

Premiums for health insurance plans sold by the Massachusetts Health Connector, which are available to individuals and small employers, were the second lowest in the U.S. in 2017 and 23% below premiums in the fully-insured employer market.

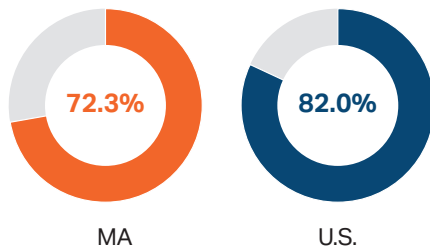
Nationally, employees of small firms paid similar amounts as large firms. However, in Massachusetts, premiums have risen more sharply for small employers since 2016.

In 2017, the average single coverage premium for small businesses in Massachusetts was \$7,801, compared to \$6,864 for large businesses in the state. These premiums are now the second highest in the U.S.

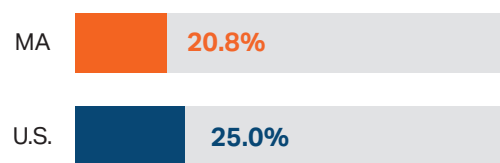
The difference in premiums may reflect a number of factors, such as differing administrative expenses, underlying health conditions of the insured population, level of coverage, prices paid to providers, and plan design.

INSURANCE OFFERED BY SMALL EMPLOYERS, MASSACHUSETTS AND THE U.S.

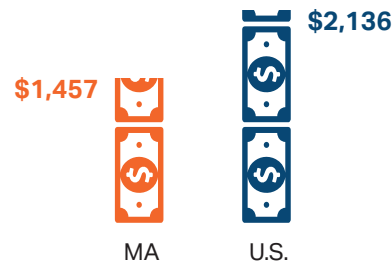
Percentage of small employer plans that had deductibles



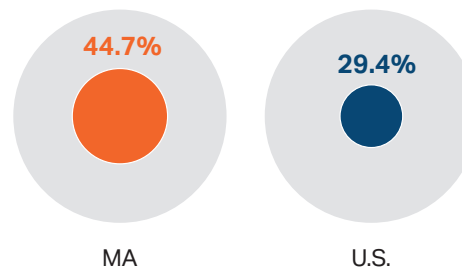
Percentage of small employers that offered two or more plans



Average deductibles among single coverage plans that had deductibles, 2017



Insurance offer rates among small employers



The higher premiums in Massachusetts for small employers may be in part explained by different plan offerings and market characteristics compared to the rest of the country.

While 82.0% of small firm employees in the U.S. were enrolled in plans that had deductibles, only 72.3% were enrolled in such plans in Massachusetts, based on data from 2015 through 2017. Further, among plans that had deductibles, average deductibles were lower in Massachusetts than the U.S. average, which translates to somewhat higher premiums.

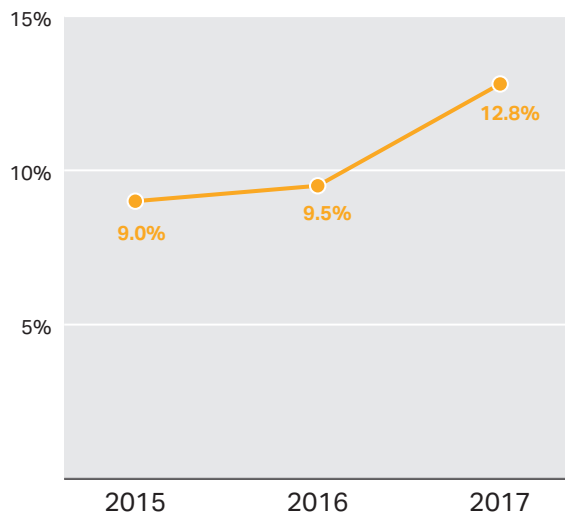
In addition, there was less plan choice for small firm employees in Massachusetts, with only 20.8% of small employers offering two or more plans, compared to the 25.0% national average.

Finally, the insurance offer rate among small employers is higher in Massachusetts (44.7%) than the U.S. average (29.4%), based on data from 2015 through 2017.

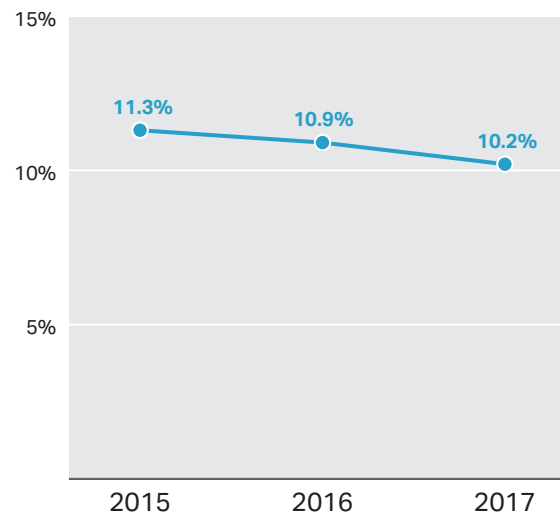
SOURCES: Agency for Healthcare Research and Quality Medical Expenditure Survey, 2015 - 2017

MERGED MARKET ADMINISTRATIVE COSTS AND SMALL GROUP ENROLLMENT, 2015 – 2017

Administrative costs (before 3R transfers) as a percentage of premiums, among fully-insured merged market (individual purchasers and small group)



Small group employees as a share of the MA commercial market



Administrative costs (usually termed “retention” by the insurance industry) refer to funds that have been retained by insurers after paying out medical claims (e.g., insurer overhead, staffing and personnel, profit margin).

In 2017, administrative costs were \$57 per member per month among the fully-insured merged market, comprising 12.8% of premiums. As a percentage of premiums, administrative costs appear to be increasing in the merged market.

Small group employees have declined as a share of the commercial market in Massachusetts, falling from 11.3% in 2015 to 10.2% in 2017.

NOTES: Premiums are pre-MLR rebates adjustment, as those are a component of retention. 3Rs refer to three programs created under the Affordable Care Act that aimed to stabilize premiums in the exchanges: reinsurance, risk corridors, and risk adjustment. These programs differ in the particulars, but they are all revenue-neutral and require insurers that carried lower risks transfer payments to those that carried higher risks. Thus, there are administrative costs associated with insurers who participate in these programs. 3R transfers do not apply to fully-insured large group.

SOURCES: Center for Health Information and Analysis Coverage Costs and Cost Sharing Databook 2018

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