

**EXECUTIVE SUMMARY**

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# Evaluation of the 2012 Health Care Cost Containment Law in Massachusetts

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# Introduction

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Chapter 224 of the Acts of 2012—“An Act Improving the Quality of Health Care and Reducing Costs Through Increased Transparency, Efficiency and Innovation”—was enacted with the goal of controlling health care spending growth while improving access and quality. The law created numerous mechanisms for pursuing this goal, including:

- New agencies to monitor health care cost growth and market dynamics;
- Incentives to encourage the wide adoption of alternative payment methodologies (APMs) by private and public payers, including MassHealth;
- Directives to increase price transparency, and other mechanisms to address key cost drivers;
- New funding for wellness and prevention programs, including workplace wellness initiatives; and
- An expansion of the roles of non-physician primary care providers, namely nurse practitioners and physician assistants.

Section 251 of the law directed the Office of the State Auditor (OSA) to “conduct a comprehensive review of the impact of [Chapter 224] on the health care payment and delivery system in the Commonwealth and on health care consumers, the health care workforce, and general public.” OSA was further required to report the results of its review, as well as policy recommendations, to the House and Senate Committees on Ways and Means and the Joint Committee on Public Health. The resulting report, *Evaluation of the 2012 Health Care Cost Containment Law in Massachusetts*, is the product of OSA’s work and is available in its entirety at [www.mass.gov/auditor](http://www.mass.gov/auditor).

The following executive summary presents condensed findings and corresponding policy implications from the OSA Chapter 224 report. The findings reflect key results from the report’s various measures. Also presented – in two parts, one lead by OSA (for Chapters 1, 2, 3, and 5) and one led by Commonwealth Corporation (for Chapter 4) – recommended future directions for research, policy and practice.

## Executive Summary

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### RESEARCH DESIGN

Each chapter in the report answers a research question presented in Section 251, as noted below. Chapter 4, which was subcontracted to Commonwealth Corporation, addresses several questions.

#### Research Question for Chapter 1:

What are the changes to health care costs, including the extent to which savings have reduced out-of-pocket costs to individuals and families, health insurance premium costs, and health care costs borne by the Commonwealth?

#### Research Question for Chapter 2:

What are the changes to access to health care services and quality of care in different regions of the state and for different populations, particularly for children, the elderly, low-income individuals, individuals with disabilities, and other vulnerable populations?

#### Research Question for Chapter 3:

What are the changes to access and quality of care for specific services, particularly primary care and behavioral health (which includes substance use disorders and mental health services)?

#### Research Questions for Chapter 4:

- a) How did industrial, occupational, and geographic structure of health care employment in the Commonwealth change?
- b) What is the proper definition of the health care industry (in statistical terms) to measure the size and composition of the state’s health care workforce?
- c) What is the impact of structural changes in the health care industry on skill requirements for employment in the state’s health care delivery system as well as impacts on earnings?
- d) How did access to employment for racial/ethnic groups, dependence on foreign-born workers for labor supply in some health care occupations, and “benefit cliff effects” on labor supply choices in occupations in which substantial shares of workers participated in non-cash income transfer programs change?
- e) What is the most likely future growth path for employment in the health care service sector?

## Research Question for Chapter 5:

What are the changes to public health, including, but not limited to, reducing the prevalence of preventable health conditions, improving employee wellness, and reducing racial/ethnic disparities in health outcomes?

To respond to these questions, OSA developed a mixed-methods (quantitative and qualitative), quasi-experimental design for the evaluation. The work explored the impact of Chapter 224 on the following:

- Health care costs, access to health care services, and quality of care in different regions of the Commonwealth and for particular populations,
- Access and quality of care for specific services,
- The health care workforce, and
- Public health.

Because the evaluation touched on numerous matters related to health, health systems, population health, and fiscal policy, OSA sought data from many secondary sources, primarily state and federal agencies. OSA conducted unique analyses of datasets from several of these sources, including the Massachusetts All-Payer Claims Database (APCD), the Massachusetts Department of Public Health, and the Massachusetts Health Reform Survey.

OSA also extensively utilized peer-reviewed research and other sources such as the Substance Abuse and Mental Health Services Administration, the National Survey on Drug Use and Health, Centers for Disease Control and Prevention, Healthcare Effectiveness Information and Data, and reports from foundations, including the Kaiser Family Foundation and the Blue Cross Blue Shield of Massachusetts Foundation.

## Quantitative methods

OSA used a variety of statistical methods for its quantitative research, as follows:

- The logistic regression model to estimate the probability of the dichotomous outcome variables,
- The method of generalized estimating equations to analyze longitudinal data, which accounts for the correlation inherent in using multiple observations for each individual,
- For group comparisons: the Chow Test to test whether the coefficients estimated for one group are equal to those for another group,
- For the survey data: complex sampling procedures, including statements for stratification, clustering, and sample weights,
- For mortality data: age-adjusted rates calculated by using the 2010 bridged-race population estimates file and the 2015 bridged-race post-censal estimates file, both produced by the National Center for Health Statistics. The rates were then age-adjusted to per-100,000 of the 2000 U.S. Standard Population.

## Qualitative methods

Qualitative study components included two elements: (1) a brief online survey with key stakeholders, published in fall 2015<sup>1</sup> and (2) in-depth, semi-structured interviews with key stakeholders, excerpts from which appear as quotations throughout this report.

## STUDY LIMITATIONS

OSA encountered several barriers while conducting its analyses:

- Findings from this research were not discussed in detail due to the large amount of variables. The study is only intended to add elements to the discussion, as well as to present some potential policy implications. The evaluation presents a broad general analysis of the measures, and in a few cases a discussion was offered.
- Although OSA obtained APCD claims data, data from earlier than 2010 were not available, which impacted the accuracy of some measures, including cancer screenings.
- In some cases, available data were insufficient to calculate whether observed trends were statistically significant.

Another major limitation was OSA's inability to control for the impact of societal changes and contemporary policy reforms, most importantly Chapter 58 of the Acts of 2006 and the Patient Protection and Affordable Care Act of 2010 (ACA). In addition to these policy changes, other contextual influences, such as an improving economy and societal shifts relating to risk factors (including rates of tobacco use and obesity), contributed to the trends reported here. These limitations and the quality and breadth of the available data prevented OSA from identifying and allocating causal relationships.

Moreover, many provisions of Chapter 224 had little to no time to take root as of the time of OSA's analyses, including:

- The Health Policy Commission launched certification programs for patient-centered medical homes and accountable-care organizations in 2016 and 2017, respectively.
- The law's call for transparency among prices of hospital services remains aspirational, though the Center for Health Information and Analysis plans to debut a medical pricing website in 2017.
- A mandated price-variation commission was replaced with a special commission on price variation (composed of legislators, governor's appointees, and representatives from stakeholder groups), which reported its findings in March 2017.
- The Pharmaceutical Cost Commission and the Diagnostic Accuracy Task Force proscribed by the law have not convened, and a report on telemedicine due in 2013 has not been issued.

If and when these and other provisions are implemented, it may take several years for their effects to be observed in longitudinal data. Therefore, OSA's analysis should be viewed as a provisional and not a final verdict on the impact of Chapter 224.

Finally, it is important to note that OSA finalized the content of this report starting in late 2016, so it may not reflect subsequent developments in relevant federal and state policy.

1 Reynoso-Vallejo, H., Porche, M., & Stuck-Girard, C. (2015). Chapter 224: stakeholders study. Office of the State Auditor. Retrieved April 18, 2017, from [mass.gov/auditor/docs/chapter-224/100615-224-stakeholders-survey.pdf](http://mass.gov/auditor/docs/chapter-224/100615-224-stakeholders-survey.pdf)

## SUMMARY OF FINDINGS AND POLICY IMPLICATIONS

### CHAPTER

#### Summary of Findings

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While some progress in controlling health care costs has been made, many challenges remain.

Total health expenditures in the Commonwealth grew at a slowing pace for nearly a decade, but the growth rate started to increase again in 2014 and surpassed the benchmark set by Chapter 224 in 2014 and 2015.

Key cost drivers include waste, price variation, provider consolidation, and prescription drug spending.

Although the Commonwealth's insurance rate is still the highest in the nation, Latinos, people with low incomes, new residents, and young adults are at much higher risk of uninsurance. Moreover, increasing health care cost burdens relative to incomes threaten access and insurance levels, as do proposed national policy changes.

There were increases in the share of the population enrolled in alternative payment model (APM) plans and in the proportion of people with employer-sponsored insurance (ESI) from self-insured employers.

Between MassHealth and the Group Insurance Commission (GIC), the Commonwealth is a major purchaser of health services.

Full implementation of Chapter 224 has not yet occurred, and the Commonwealth's executive and legislative branches continue to propose additional ways to control costs.

#### Policy Implications

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Obstacles to meeting the annual cost-growth benchmark remain.

The Legislature, the Executive Branch, the GIC, private payers, and other key stakeholders should continue to develop and implement interventions to address provider price variation,

The Commonwealth could develop strategies to reduce prescription drug costs and unwarranted price variation.

The Commonwealth could monitor the effect of high-deductible and tiered-network plans on care utilization to ensure these plans are not limiting access to care. The Commonwealth and its insurers may continue to reach out to populations most likely to be uninsured, including Latinos, people with low-incomes, young men, and new residents.

APMs will continue to be an important strategy for controlling health care costs.

The GIC and MassHealth should continue to use their market clout to explore innovations in plan design and care delivery reform.

More time, more data, and improved data quality are needed to assess the full impact of Chapter 224.

## CHAPTER

### Summary of Findings

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For measures focused on vulnerable patient populations, there were some areas of improvement and some negative trends.

Overall, Massachusetts maintained broad access to care but continued to grapple with high levels of hospital readmissions and avoidable ED visits.

Disparities persisted for children, older adults, people with low incomes, and people with disabilities. Access to pediatric primary care improved, though children and adolescents with commercial insurance still accessed primary care more often than youth enrolled in MassHealth.

Regarding adults 65 and older, cancer screening rates were sufficient, although significant room for improvement remained in other prevention measures, such as osteoporosis care and influenza vaccinations.

Among people with low incomes, cancer screening rates generally improved, but access to care remained inconsistent. For instance, adult oral-health coverage and cervical screening rates decreased among MassHealth enrollees.

Among people with disabilities, the data were insufficient to calculate trends, though it is clear this population faces substantial barriers to achieving satisfactory health outcomes.

### Policy Implications

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Additional investment in data collection and cleaning is needed to better understand the current state of affairs and to inform progress.

To reduce unplanned readmissions and avoidable emergency department visits, possible interventions include strengthening care coordination, ensuring that post-discharge plans are rigorous and provided to patients' providers, educating patients about urgent care centers, and increasing the capacity of primary care practices to treat behavioral health needs.

People with low incomes suffer from persistent disparities. They need all stakeholders to assist by expanding adult oral-health coverage, improving cervical cancer screening, and increasing well-child visits.

Among people with disabilities, new data measures and data-collection capacity are needed.

## CHAPTER

### Summary of Findings

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Findings related to primary care and behavioral health indicated as many areas of progress as those with negative trends.

Two major primary care goals of Chapter 224, encouraging coordination of care and shifting more visits to non-physician PCPs, have not yet been achieved.

An inadequate supply of behavioral health treatment resources exists, despite some expansion in the capacity of psychiatric beds and treatment among heavy alcohol users.

Compared to national averages, Massachusetts residents have higher rates of substance use involving alcohol and marijuana. Moreover, the opioid epidemic contributed to increased morbidity/mortality and treatment needs. In the near future, stakeholders should evaluate the results of diverse initiatives to combat opioid addiction and provide treatment services.

### Policy Implications

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All stakeholders need to improve care coordination and behavioral health. Possible strategies include direct investment by the Commonwealth in new facilities, increasing MassHealth reimbursement rates for behavioral health, reforming medical licensing to allow out-of-state providers to practice in Massachusetts, and furthering the integration of primary care and behavioral health.

Future actions to address the opioid epidemic may include the enforcement of provider checks with prescription-monitoring data, granting legal amnesty to people who turn over opioids to law enforcement, and making overdose-reversal medicines more widely available and affordable.

## CHAPTER

### Summary of Findings

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Like in many other industries, the job market in health care has experienced growth in high-skilled jobs that require a bachelor's degree or higher and in low-skilled jobs that require little or no certification.

Health care providers are redesigning delivery systems to allow workers to work at the top of their licenses and to increase efficiencies and quality. The health care industry employs greater shares of women, African Americans and Latinos than all other non-health industries combined, so any changes affecting the health care workforce will impact these groups.

Demand is rapidly growing for home health aides and personal care assistants, yet wages for these direct care jobs have held stagnant since 2004. Along with certified nursing assistants, these positions require similar knowledge, skills, abilities, and behaviors and very little or no certification, so they are highly substitutable for one another. Employers seeking to fill these positions are increasingly competing with employers in retail, food service, and other industries. Third-party reimbursement rates have constrained the ability of home health agencies to raise wages in order to respond to this labor supply challenge.

### Policy Implications

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The health care industry is in the process of transforming care delivery systems and shifting focus from inpatient to outpatient settings.

From a workforce perspective, this transformation has required training current workers to continuously improve systems, upgrading staff in positions that are being re-designed and deployed differently, and raising the requirements for skills and credentials in positions like nursing.

Postsecondary education institutions will need to monitor these shifts and adapt their programs to meet changing hiring requirements, while health care providers will likely need to continue investing in incumbent workers' skills.

Home and community-based care providers face many challenges to meet the rapidly growing demand for direct care workers.

## CHAPTER

### Summary of Findings

Among population-health measures, there were some positive trends but also many areas of concern or stasis.

There was an improvement on cancer screenings and overall cancer death. The level of morbidity/mortality related to many non-cancer conditions increased (e.g., obesity, diabetes, STIs, Hepatitis C, drug-resistant TB) or remained unchanged (e.g., asthma, dental visits, high blood pressure, coronary heart disease, stroke); however, important improvements were observed in the smoking rate and the impact of HIV/AIDS

Cancer screenings and overall cancer deaths improved. The level of morbidity/mortality related to many non-cancer conditions increased (e.g., obesity, diabetes, STIs) or remained unchanged (e.g., asthma, dental visits, high blood pressure, coronary heart disease, stroke). Nevertheless important improvements were observed in the smoking rate and the impact of HIV/AIDS.

Based on available public health indicators, Asians had the most positive results, followed by Whites, Latinos, and African Americans.

Asians had the best outcomes on more than half of the measures, including high blood pressure, breast and colorectal cancer mortality, and smoking. Additionally, Asians had improving trends for five of 27 measures with statistically significant results.

Whites had the second-best set of outcomes, including the best rank on eight measures, including having a personal health care provider, making a recent dental visit, and birthweight. However, Whites had unfavorable trends for five of 27 measures, including lifetime adult asthma prevalence, pre-diabetes and diabetes, routine checkup in the last year, and dental visit in the last year.

Latinos (among the commercial population) had the most favorable outcomes on six measures, including lung cancer mortality, stroke mortality, and screening for breast and cervical cancer. However, Latinos struggled in measures related to access, such as skipping needed care due to cost. Additionally, the group had only one worsening trend (dental visit in the last year) and three improving trends: current smoker, overall cancer deaths, and breast screening among people aged 50 to 74.

African Americans had the worst results on more than half of the measures, including prostate cancer mortality, infant mortality, oral health, HIV/AIDS, and overweight/obesity. Nevertheless, there were improvements in five measures, including smoking, prostate cancer mortality, and breast screening among people aged 50 to 74 with commercial coverage.

These population-health findings show much room for improvement in the Commonwealth, which was a goal of Chapter 224.

Positive indicators came from prevention-and-wellness programs created under Chapter 224.

### Policy Implications

Priority areas for improvement include improving oral health and reducing chronic conditions such as obesity, diabetes, asthma, and coronary heart disease.

Increased investment in public health systems is essential to capitalize on current progress, scale prevention-and-wellness initiatives, increase positive trends, and decrease disparities. Actions to reduce disparities include further research into barriers to care and the social determinants of health.

The social determinants of health are powerful predictors of health outcomes and help drive racial/ethnic differences. Another crucial factor contributing to health disparities is exposure to what is known as “structural violence.” This concept refers to discriminatory social structures—economic, political, legal, religious, and cultural—that impede the ability of individuals, groups, and societies to reach their full potential and satisfy fundamental human needs, including access to comprehensive health care.

In addition, further understanding of population health, in terms of the differences in outcomes within groups constructed as racial/ethnic, is needed. For instance, more research is necessary to understand the factors within Asian American subgroups that account for this population’s relatively positive health outcomes. Subgroup differences within the Latino population should also be further explored.

Lastly, data are needed to investigate the impact of prevention-and-wellness programs in population health.

## FUTURE DIRECTIONS

### For Chapters 1, 2, 3, and 5

Future health systems and policy research in the Commonwealth should continue to focus on questions of access, quality, health equity, and cost, particularly ways to further reduce costs and increase gains in access and quality.

More population-health research is necessary to better understand differences among and within racial/ethnic groups. (For example, which Asian subgroups are driving the wide gap in successful outcomes? Why have Latinos not shown stronger improvement? Why do African Americans lag by such large margins?) Research on the intersection of social determinants of health and population health is essential to this analysis.

The most urgent need, however, is for more and better data, as follows:

- Firstly, monitoring the impact of policies is already challenging given significant contextual uncertainty. For example, the Massachusetts legislative and executive branches are considering new cost-containment initiatives starting in 2017 (such as insurer-to-provider cost-growth caps), and there are numerous proposals for dramatic change at the federal level (such as restructuring Medicaid into block grants or per capita caps). More quality data will help evaluators account for this contextual uncertainty.

- Secondly, no new initiative can be fully evaluated without improvements among data systems. To the extent possible, future evaluations should be initiated concurrently with policy initiatives and include data collection and analysis plans *a priori*.

OSA plans to release an update to this report in June 2018.

### For Chapter 4

Based on their analyses of population projections and the associated rise in the incidence of disability as the state ages, the authors predict a sharp rise in the demand for health care and related support services among frail older adults. The health care system and state government finances will face major challenges in meeting what is likely to be a massive increase in service requirements while limiting the impact on taxpayers. Therefore, stakeholders will have to resolve very serious imbalances in the direct care labor market and improve protections for direct care workers and consumers. In short, understanding the direct care labor market—including compensation, public assistance participation among workers, and changing skill requirements—will be key.

Requirements for health care professional and technical occupations are also changing rapidly. In these heavily regulated labor markets, one of the most important developments is the increasing propensity for workers to work at the top of their licenses, meaning they practice to the full extent of their education and training. The rising demand for cost containment will put intense pressure on health care professionals and technicians to be more effective and efficient. The resulting impact on wages and working conditions, as well as the potential for increased turnover and other adverse impacts, are important concerns that should be closely monitored.

Emotional, cognitive, and drug-induced disorders have risen sharply in Massachusetts, yet little is known about the labor markets for behavioral health care. Indeed, the authors are unaware of even a simple measure of this labor market's size in the Commonwealth. Therefore, a baseline study of behavioral health care workers would be useful.