



## Health Resources in Action

*Advancing Public Health and Medical Research*

Health Resources in Action (HRiA) is a national non-profit public health and medical research organization, located in Boston, whose mission is to help people live healthier lives and build healthy communities through policy, research, prevention and health promotion.



# Universal Health Insurance Access Efforts in MA: A Literature Review

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## I. Executive Summary

The federal Patient Protection and Affordable Care Act (ACA), passed in 2010, was largely modeled after the Massachusetts (MA) 2006 Health Care Reform effort (Chapter 58) (*Graves & Swartz, 2012; Henry J. Kaiser Family Foundation, 2012; Long 2010; Long, Stockley, & Dahlen, 2011; Patel & McDonough, 2010; Raymond, 2011*). Entitled *An Act Providing Access to Affordable, Quality, Accountable Health Care*, Chapter 58 aimed to provide near-universal health insurance coverage for MA residents through shared individual, employer, and government responsibility (*McDonough, Rosman, Butt, Tucker, & Howe, 2008; Patel & McDonough, 2010*).

Title I of the ACA most closely resembles Chapter 58 and Massachusetts's (MA) previous insurance reform efforts, as they both primarily focus upon increasing insurance coverage for the population through insurance market reforms, individual mandates, and insurance subsidies (*McDonough, 2011*). Given the parallels, the lessons learned from MA are valuable to inform the implementation of the ACA and its potential impact upon the public health enterprise throughout the United States.

The experience of Chapter 58's passage and implementation is unique in several important ways, which will be important to bear in mind when applying lessons learned in MA to the rest of the United States. Before reform, MA had a political environment that was particularly favorable to expanding coverage (*Patel & McDonough, 2010; Raymond, 2011a*); tightly regulated small-group and non-group insurance markets (*McDonough, Rosman, Phelps, & Shannon, 2006*); a significantly lower uninsurance rate as compared to the rest of the nation (*Auerbach, 2013; McDonough et al., 2006*); and one of the best health care access systems in the U.S. for low-income, uninsured populations (*Hall, 2010*).

Additionally, MA has a unique governmental public health system that is decentralized and much less likely than other states to directly provide clinical and safety net services.

This document reviews the existing body of peer-reviewed and grey literature to understand the impact of MA's health care reform efforts upon public health practice and population health outcomes. Specifically, this document describes the impact of Chapter 58 on health insurance coverage, access to care, chronic disease management, infectious diseases, utilization of emergency services, screening and preventive care, smoking cessation, safety net provider utilization, the role of safety net providers in enrollment, safety net finances, and public health programs.



In addition, lessons learned from the MA experience are described, addressing the following content areas:

- Successful strategies used by MA to enroll uninsured individuals and increase access to care;
- Identifying the remaining uninsured/underinsured populations and barriers to accessing care;
- The impact of health care reform upon clinical health and public health services; and
- The role of public health leadership in health care reform.

This literature review also identifies the following gaps in the literature to understand Chapter 58's impact in MA. These gaps include the following:

- The short-term impact of Chapter 58 on
  - » Provider supply and practice patterns;
  - » Local health departments in MA;
  - » The structure and funding of the safety net;
  - » The extent to which public health functions were absorbed into clinical settings;
  - » Certain health outcomes which have not been analyzed; and
  - » Health care quality and costs.
- The long-term effects of Chapter 58 on health outcomes and utilization.

These gaps were explored through qualitative interviews with key informants who were involved in the passage and implementation of Chapter 58. The findings from these interviews are detailed in a qualitative findings report. Highlights from both the literature review and the qualitative findings report have been developed into a case study documenting MA's universal health insurance access efforts. The lessons learned from the MA experience were extrapolated to the national scale and presented in the case study to help other states anticipate the potential impact of the ACA in their own context.

Lastly, while the ACA focuses on affordable insurance coverage and expansion, it also includes areas that Chapter 58 did not address as extensively or at all. These areas, such as health care cost and quality and building up the health care workforce, were addressed through the following MA legislation: *An Act to Promote Cost Containment, Transparency, and Efficiency in the Delivery of Quality Health Care* (Chapter 305) passed in 2008; *An Act to Promote Cost Containment, Transparency, and Efficiency in the Provision of Quality Health Insurance for Individuals and Small Businesses* (Chapter 288) passed in 2010; and *An Act Improving the Quality of Health Care and Reducing Costs Through Increased Transparency, Efficiency, and Innovation* (Chapter 224) passed in 2012. While analyzing the impact of Chapters 305, 288, and 224 on MA's public health enterprise goes beyond the scope of this literature review and the subsequent qualitative report and case study, future studies are recommended to more fully understand the impact of MA's health reform efforts to date and draw lessons learned for the rest of the country.



## II. Introduction

The federal Patient Protection and Affordable Care Act (ACA) — passed in 2010 — was largely modeled after the Massachusetts (MA) 2006 Health Care Reform effort (Chapter 58).

Given the strong parallels between the Affordable Care Act (ACA) and MA's 2006 Health Care Reform effort (Chapter 58), the lessons learned from MA can inform implementation of the ACA and its potential impact upon the public health enterprise in states throughout the nation (*Graves & Swartz, 2012; Henry J. Kaiser Family Foundation, 2012; Long 2010; Long, Stockley, & Dahlen, 2011; Patel & McDonough, 2010; Raymond, 2011*). In May 2013, the Centers for Disease Control and Prevention (CDC) commissioned the National Network of Public Health Institutes (NNPHI) to develop a case study of the 2006 health care reform effort in MA (Chapter 58), which transformed the state's health insurance landscape, expanded public programs, and impacted the public's health through a variety of other provisions. Health Resources in Action (HRiA), a Massachusetts-based public health institute and member of NNPHI, was contracted to execute this case study.

**To assess the impact of Chapter 58 on public health practice and population health outcomes, the following efforts were completed:**

- A review of peer-reviewed and grey literature;
- Quantitative data analysis; and
- Qualitative interviews with key informants who were involved in the passage and implementation of Chapter 58.

**From these efforts, three reports were produced: a literature review, a qualitative findings report, and a case study. The case study documenting MA's universal health insurance access efforts includes highlights from both the literature review and the qualitative findings report. Topics that will be explored in the case study include the impact of Chapter 58 upon the following:**

- Health services provision;
- Health care access and utilization;
- Structural and financing changes to the public health system and health care partners; and
- Changes in health outcomes (where possible).

These findings will ultimately be extrapolated to the national scale and presented in the case study to help other states anticipate the potential impact of the ACA in their own context.

This report presents the findings of the first case study component: the comprehensive literature review.



### III. Methods

This literature review examines existing literature in the following areas:

- MA health care reform as it relates to the national landscape and ACA implementation;
- Transformations in public health functions;
- Health outcomes, trends, and overall health impact;
- Role of public health leaders in shaping implementation;
- Impact on the safety net system; and
- Changes in structure and function in state and local health departments.

Gaps in the existing literature and data are noted.

The following databases were used to access peer-reviewed published literature:

- PubMed;
- Google Scholar; and
- Academic Search Premier.

The following organizational websites were explored to access grey literature:

- Blue Cross Blue Shield Foundation
- Kaiser Family Foundation
- The Urban Institute
- Georgia Health Policy Center
- Robert Wood Johnson Foundation
- American Public Health Association
- National Association of County and City Health Officials
- Association of State and Territorial Health Officers
- MA Health Connector
- MA Division of Healthcare Financing and Policy
- Health Care For All
- Center for Health Information and Analysis

Finally, public health leaders provided access to preliminary findings in the form of conference presentation slides. These findings have been incorporated into this literature review report, where applicable.

Sixty-two combinations of search terms were used, including “Massachusetts health reform”; “Affordable Care Act”; “Chapter 58”; “access”; “coverage”; “affordability”; “lessons learned”; “mortality rate”; “safety net providers”; among others. See the Appendix for a full list of database search terms. Titles and abstracts from 1998–present were reviewed for relevance to the topic.



## IV. Overview and Generalizability of Massachusetts's Health Care Reform Experience (Chapter 58)

### A. OVERVIEW OF CHAPTER 58 IN MA

In 2006, comprehensive health care reform was passed in MA with bipartisan support. Entitled *An Act Providing Access to Affordable, Quality, Accountable Health Care*, otherwise referred to as Chapter 58 of MA General Laws, this legislation aimed to provide near-universal health coverage for MA residents through shared individual, employer, and government responsibility. The final vote to adopt Chapter 58 in MA was nearly unanimous (minus two votes in the state's House of Representatives), and its passage was viewed with approval by business associations, provider organizations, consumer and advocacy groups, and health insurers (*McDonough et al., 2008; Patel & McDonough, 2010*).

#### Chapter 58's components included:

- Medicaid expansion (known as MassHealth);
- Establishing a health insurance exchange (known as the Commonwealth Health Insurance Connector) to enable residents to access both subsidized and non-subsidized private health insurance;
- Introducing insurance market reforms; and
- Establishing requirements for individuals and employers. (*Henry J. Kaiser Family Foundation, 2012; Long, Stockley, & Dahlen, 2012*)

It also included a number of prevention and wellness promotion components, including:

- Increases to the MA Department of Public Health's budget in areas such as tobacco prevention and control;
- A mandate to provide tobacco cessation services as part of MassHealth; and
- A call for a study and recommendations to investigate the use of community health workers.

In terms of its insurance expansion, MA's Chapter 58 legislation provided a template for the federal Affordable Care Act (ACA) passed in 2010; thus, lessons from MA's experience can inform the nation as it implements the ACA (*Graves & Swartz, 2012; Henry J. Kaiser Family Foundation, 2012; Long 2010; Long, Stockley, & Dahlen, 2011; Patel & McDonough, 2010; Raymond, 2011*). While much of the literature review will focus on the lessons learned in MA, and specifically the impact of Chapter 58 upon the state's governmental public health system described in the next section, it is important to underscore the unique context of the state that could limit the generalizability of these lessons learned overall.





## B. GENERALIZABILITY OF MASSACHUSETTS'S CONTEXT

### Overview

The experience of Chapter 58's passage and implementation is unique in several important ways. First, MA's political environment was quite favorable for expanding coverage (*Patel & McDonough, 2010; Raymond, 2011a*). As mentioned, Chapter 58 received bipartisan support and continues to receive sustained support from stakeholder groups and the public overall.

Furthermore, Chapter 58's passage was the culmination of numerous reforms that occurred over two decades; these reforms had already strengthened MA's safety net structure, introduced insurance market reforms, and expanded health insurance access. Additionally, MA's unique public health enterprise is important to consider when drawing lessons from MA's experience to other public health systems across the country. Ultimately, whether the MA health reform experience applies to other states will depend on that state's political and economic environment, governmental and public health system, stakeholder preferences and demands, and strengths and skills of the state's leaders (*Urrff, 2011a*).

### Massachusetts safety net

Pre-Chapter 58 reform, MA was known for having one of the best health care access systems in the U.S. for low-income, uninsured populations (*Hall, 2010*). Compared to other states, MA had a robust safety net comprised of public hospitals, public health clinics, and the oldest and most extensive network of community health centers (CHCs) in the nation (*Henry J. Kaiser Family Foundation, 2009; McDonough et al., 2006*).

Also, dating back to 1985, MA established a "free care pool" known as the statewide uncompensated care pool (UCP). Now known as the health safety net (HSN) trust fund, this pays community health centers and safety-net hospitals for essential health care services provided to low-income uninsured and underinsured residents. The HSN is funded through a combination of hospital assessments, payer surcharges, and government payments and ensures that safety-net providers caring for uninsured or underinsured patients receive compensation for the services they provide (*McDonough et al., 2006; Raymond, 2011a*). Thus, because of MA's robust safety net structure preceding Chapter 58, and because most states do not have uncompensated care programs (or at least to the extent MA does), the parallels between MA's experience and the impact of health care reform on the safety-net structure and funding in other states may be limited (*Ku, Jones, Finnegan, Shin, & Rosenbaum, 2009*).

### Prior health insurance reforms

Chapter 58 is referred to as the "third wave" of MA health care access reform (*McDonough et al., 2006*). The first wave, in 1988, aimed to enact a "universal health care law" that would lead to universal coverage by 1992 through a "play-or-pay" employer mandate that assessed penalties to employers for each uninsured worker. However, this was repealed in 1996 due to the political climate, mobilized business opposition, and a severe economic downturn.



**In spite of this, features of the 1988 legislation still stand in Massachusetts, including:**

- Medicaid coverage to disabled adults seeking to work and certain disabled children;
- The Medical Security Plan that provides coverage to workers who are collecting unemployment compensation;
- The Healthy Start program providing coverage to lower-income pregnant women and new mothers; and
- The student health insurance mandate requiring college and university students to purchase health insurance.

The second wave occurred in 1996 and 1997, when MA obtained approval of a federal Section 1115 waiver to expand its Medicaid program, MassHealth, to previously ineligible populations and children. In addition, it expanded eligibility for a limited package of primary and preventive care services to all uninsured children who were ineligible for MassHealth through the Children's Medical Security Plan (McDonough et al., 2006). This significantly decreased the number of uninsured residents in MA overall.

At the same time, in 1996, the legislature passed the Non-Group Health Insurance Reform Act. This Act included “guaranteed issue”, requiring insurers to issue insurance to any eligible applicant without regard for current health status or other factors. Because of this, those eligible for group coverage were not allowed to purchase individual insurance.

In addition, under this legislation insurers in the individual market were prohibited from varying premium rates based on health status. Instead, insurers were limited to varying their rates based on age, geographical region, and family composition only. Furthermore, restrictions on the amounts by which insurers could vary these rates were also applied (Wachenheim & Leida, 2012).

As a result of these reforms, MA entered into the process of Chapter 58 implementation with a significantly lower uninsurance rate as compared to the rest of the nation: 6.4% in MA versus 15.8% in the U.S. in 2006 (Auerbach, 2013; McDonough et al., 2006). Thus, the rapid expansion to near-universal health insurance coverage and issues and trends related to access and utilization may be unique to MA's context. Furthermore, MA's already tightly regulated small-group and non-group insurance markets facilitated the political palatability, passage, and implementation of the individual mandate; this may not be the case in states where medical underwriting, experience rating, and nonguaranteed issue are the norm (McDonough et al., 2006).

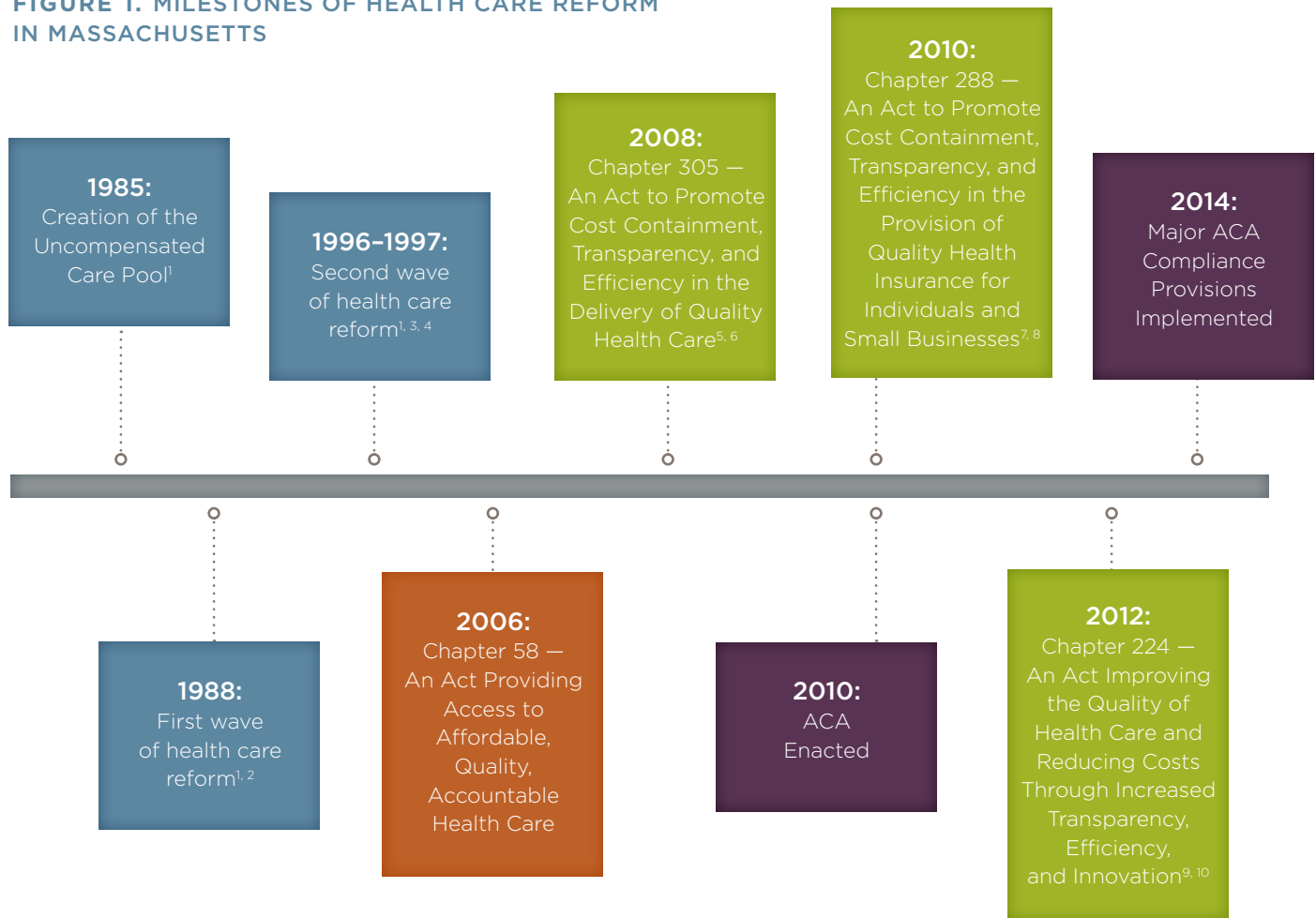
**Figure 1** depicts a timeline of MA's health care reform efforts to date.

### Massachusetts's public health context

Of specific relevance to this literature review, the structure of the MA governmental public health system differs from most other states (Hyde & Tovar, 2006; Wall, 1998). The majority of other states' public health infrastructures are organized at the county or regional level; exceptions include large cities, such as New York City, Houston, and Detroit, which support their own city health departments, and some city and county collaboratives such as Seattle/King County, which jointly operates the health department (Wall, 1998).



**FIGURE 1. MILESTONES OF HEALTH CARE REFORM IN MASSACHUSETTS**



<sup>1</sup> McDonough et al., 2006

<sup>2</sup> An attempt to achieve universal health care through a “play-or-pay” employer mandate

<sup>3</sup> Wachen & Leida, 2012

<sup>4</sup> Expanded eligibility for MassHealth and the Children’s Medical Security Plan. Passage of the Non-Group Health Insurance Reform Act

<sup>5</sup> <https://malegislature.gov/Laws/SessionLaws/Acts/2008/Chapter305>

<sup>6</sup> This legislation aimed to improve quality and contain costs through requiring electronic health records; streamlining insurer and provider billing and coding; recruitment and retention of primary care providers; instituting marketing restrictions on pharmaceutical companies; and commissioning various studies on cost containment and quality improvement measures.

<sup>7</sup> <https://malegislature.gov/Laws/SessionLaws/Acts/2010/Chapter288>

<sup>8</sup> This legislation aimed to improve quality and contain costs through creation of a group wellness pilot program; analyzing mandated insurance benefits; requiring health care providers to track and report quality information; requiring health insurance carriers to calculate and

report detailed financial information, including medical loss ratios; requiring hospitals to report all costs; establishing a single all-payer database; encouraging providers and payers to adopt a bundled payment system; reviewing small group insurance rating factors; requiring health plans to offer selective or tiered network plans; simplifying payer claims processing; establishing small business group purchasing cooperatives; promoting provider payment transparency; preventing certain carrier-provider contracting practices; and establishing a special commission on provider price reform.

<sup>9</sup> <https://malegislature.gov/Laws/SessionLaws/Acts/2012/Chapter224>

<sup>10</sup> This legislation aimed to improve quality and contain costs through establishing a health care cost growth benchmark tied to the growth rate of the gross state product; requiring providers to report financial data; implementing consumer price transparency measures; requiring state approval for certain health care infrastructure changes (hospital mergers, construction of new health care facilities), changing Medicaid reimbursement rates; creating a new process for certifying Accountable Care Organizations; reforming medical malpractice; developing certification standards for patient-centered medical homes; and creating new funds for prevention.

By contrast, MA's public health system is highly decentralized, where funding for public health services is primarily the responsibility of local town and city governments. Thus, though in 2010 MA ranked 14th in population size and 44th in land area, MA has more local public health departments (LHDs) than any other state in the U.S., numbering at 351 (*Hyde & Tovar, 2006; U.S. Census Bureau, 2010*).

In general, each of these LHDs functions autonomously, as they are governed by home rule legislation, with the majority having a local board of health that oversees the provision of public health services (*Hyde & Tovar, 2006*). With the exception of the few larger cities, LHDs are sparsely funded, have few to no full-time staff, and only have the capacity and expertise to perform basic functions. As a result, LHDs contract with individuals and agencies to provide public health services such as public health nursing and inspection services. Municipal funding is the primary source of revenue for local public health departments, with additional revenue coming from fees, fines and/or surcharges, service contracts, and local, state, federal, and private grants (*Hyde & Tovar, 2006*).

Because local health department units are small, the Massachusetts Department of Public Health (MDPH) contracts out many public health services and functions to area non-profit organizations such as community-based organizations (CBO) and community health centers (CHC) (*Wall, 1998*). MDPH treats LHDs as vendors, requiring them to compete alongside private providers for state funds. In addition, because of the robust CHC system and MA's historically high percentage of insured residents, MDPH is much less likely than other state health departments to provide clinical and safety net services directly. Though this is the case, this literature review will look at the impact of

Chapter 58 on MA's safety net providers to inform other states on what possible impacts to expect; however, the limitations to the generalizability of MA's health care reform experience will be important to bear in mind.

### C. COMPARING CHAPTER 58 AND THE AFFORDABLE CARE ACT

#### Overview

As previously described, Chapter 58 primarily focused on the affordable expansion of insurance coverage to the state's uninsured population. Described as a three-legged stool, Chapter 58 combined three policy elements: 1) systemic reform of health insurance markets for individuals and small employers by establishing the MA Health Insurance Connector Authority; 2) an individual mandate on all residents to purchase a minimum level of health insurance or face financial penalties; and 3) subsidies to make coverage affordable by controlling the cost of premiums and addressing cost-sharing in the form of co-payments, deductibles, and co-insurance (*McDonough, 2011*).

In contrast, the federal ACA is much broader and includes ten focus areas, or Titles, each with an ambitious reform agenda (*Patel & McDonough, 2010; U.S. Department of Health and Human Services, 2013*).

#### The titles of the ACA are as follows:

- Title I: Quality Affordable Health Care for All Americans
- Title II: The Role of Public Health Programs
- Title III: Improving the Quality and Efficiency of Health Care
- Title IV: Prevention of Chronic Disease and Improving Public Health
- Title V: Health Care Workforce
- Title VI: Transparency and Program Integrity
- Title VII: Improving Access to Innovative Medical Therapies



- Title VIII: Community Living Assistance Services and Supports Act (CLASS Act)
- Title IX: Revenue Provisions
- Title X: Reauthorization of the Indian Health Care Improvement Act

The next section will detail the basic similarities and differences between Chapter 58 and the ACA, which ultimately informs the extent to which MA's experience can be generalized to the national health care reform landscape.

### Similarities between the ACA and Chapter 58

Title I of the ACA most closely resembles Chapter 58 and MA's previous insurance reform efforts, as it primarily focuses upon increasing insurance coverage for the population through the three-legged stool of insurance-market reforms, individual mandates, and insurance subsidies (*McDonough, 2011*).

#### Specifically, both the ACA and Chapter 58:

- Enact insurance market reforms, such as preventing insurance companies from denying coverage based on health status or other factors (“guaranteed issue”) and requiring community ratings to calculate premiums (instead of calculating premiums based upon an individual's risk factors);
- Create individual mandates for residents to purchase health insurance if affordable coverage is available or enroll in public insurance options that are available to them;
- Establish health insurance exchanges for individuals and employers to purchase health coverage;
- Provide subsidies for lower- and moderate-income individuals and families to purchase coverage;

- Expand Medicaid eligibility; and
- Require that certain employers offer insurance to their employees and assess penalties on those that do not comply. (*Blavin, Blumberg, Buettgens, & Roth, 2012; Blumberg & Clemans-Cope, 2012; Henry J. Kaiser Family Foundation, 2012; Patel & McDonough, 2010; Raymond, 2011a; The Kaiser Family Foundation, 2012; U.S. Department of Health and Human Services, 2013*)

### Differences between the ACA and Chapter 58

While both sets of legislation address the three-legged stool of affordable insurance expansion, there are some differences in the specifics of each set of legislation. **Table 1** on Page 10 summarizes the primary similarities and differences between the two regulatory schemes.

Beyond the differences in detail around insurance expansion and insurance market reforms, the ACA is a much more expansive piece of legislation that addresses areas that Chapter 58 did not address as extensively or at all. It should be noted that while the following areas were not the primary focus of Chapter 58, many of them were addressed in later MA legislation preceding the passage and/or implementation of the ACA.

### Health care cost and quality

Chapter 58 addressed issues of cost and quality through the establishment of a Health Care Quality and Cost Council (the Council), which aimed to “develop and coordinate the implementation of health care quality improvement goals that are intended to lower or contain the growth in health care costs while improving the quality of care” (*MyHealthCareOptions — About Us: Health Care Quality and Cost Council,* 2010; *McDonough et al., 2008*).



The Council created and launched a consumer-oriented website with quality and cost data and also developed and monitored the progress of cost containment and quality improvement goals for the state (*Health Care For All Massachusetts, 2009*).

While the Council made significant contributions to improving health care quality and containing costs, it was given minimal authority (*Patel & McDonough, 2010*). As a result, the state's health care costs continued to rise. Concerns regarding cost and quality were more thoroughly addressed later through the passage of another MA omnibus bill in 2012, *An Act Improving the Quality of Health Care and Reducing Costs Through Increased Transparency, Efficiency and Innovation*, known as Chapter 224.

The ACA aims to contain health care costs by convening an Independent Payment Advisory Board that will have significant authority over Medicare payment rates (*Patel & McDonough, 2010*). In addition, the ACA will promote quality and address cost control by increasing investment in comparative effectiveness research, instituting a tax on high-cost insurance plans, and providing funding for pilot programs designed to improve the quality and efficiency of health care (*"Re-Forming Reform: What the Patient Protection and Affordable Care Act Means for Massachusetts," 2010; Gruber, 2011*).

### Elimination of racial and ethnic health disparities

Another provision of Chapter 58 was the establishment of the legislatively appointed MA Health Disparities Council (HD Council). The HD Council brings together health equity experts, including public health leaders from state and local health departments, to analyze issues of racial and ethnic disparities in

health care and health outcomes in the state and to make recommendations to address them (*Health Care for All Massachusetts, 2007; Health Care For All Massachusetts, 2009; McDonough et al., 2008*). These issues include collecting race and language data, expanding health care access, and addressing social factors that influence health (*Health Care For All Massachusetts, 2009*). In addition, MassHealth's Pay for Performance (P4P) standards in Chapter 58 included measures to reduce disparities by making Medicaid hospital rate increases contingent upon quality measures, such as reducing racial and ethnic health disparities (*Massachusetts Medicaid Disparities Policy Roundtable, 2007*).

**The ACA includes provisions to address racial and ethnic health disparities, as well, and does so more extensively than Chapter 58. The ACA:**

- Requires broad race, ethnicity, and language preference data for federally funded health care, public health programs, government surveys, or other activities;
- Elevates federal efforts to boost work addressing minority health issues;
- Expands research and funding on health and health care disparities;
- Encourages racial and ethnic diversity in the U.S. health care workforce;
- Supports cultural competency programs for health care providers; and
- Addresses disparities in preventive care and insurance coverage. (*Robert Wood Johnson Foundation, 2011*)



### Health care workforce

Some studies indicate that Chapter 58 was complicating the distribution, supply, and accessibility of primary care physicians (*Dyck, n.d.; McDonough, 2011*). While building up the health care workforce was less of a focus of the Chapter 58 legislation (and was addressed through Chapter 305, *An Act to Promote Cost Containment, Transparency, and Efficiency in the Delivery of Quality Health Care* and later through Chapter 224), this feedback from MA and other stakeholders prompted ACA

provisions that focus on building up the primary care workforce through the provision of scholarships, loan repayment programs, incentives, and other recruitment strategies (*McDonough, 2011; U.S. Department of Health and Human Services, 2013*).

Detailing each of the ACA’s titles goes beyond the scope of this literature review; however, lessons learned from MA will be relevant as the ACA’s core features modeled after Chapter 58 will take effect in 2014.

**TABLE 1: COMPARISON OF MAJOR PROVISIONS IN MASSACHUSETTS’S CHAPTER 58 AND THE ACA**

	Similarities between CHAPTER 58 & ACA	Differences between CHAPTER 58 & ACA	
		Chapter 58	Affordable Care Act
<b>Insurance Market Reforms</b>	Systemic insurance market reforms require guaranteed issue, community rating, and coverage standards.	Systemic insurance market reforms also required affordability standards. Individual and small group markets were merged into a single risk pool. Dependent coverage was expanded to age 25 or two years after loss of dependent status.	Systemic insurance market reforms also required the elimination of lifetime limits. Preventive services were expanded in 2010. Dependent coverage was extended to age 26.
<b>State-based Exchange</b>	Health insurance marketplaces enable individuals and small businesses to compare and purchase private insurance that meets certain coverage and cost standards.	The Connector established a quasi-governmental health insurance marketplace which has been characterized as an “active purchaser” system ( <i>Corlette, Alker, Tuschner, &amp; Volk, n.d.</i> ).	States have chosen the type (clearinghouse or active purchaser), structure (operated by state, quasi-governmental, or non-profit), and level of federal involvement (state-based, state-federal partnership, or federally-facilitated) of their exchanges. They may change their decision later ( <i>The KaiserFamily Foundation, 2013</i> ).



	Similarities between CHAPTER 58 & ACA	Differences between CHAPTER 58 & ACA	
		Chapter 58	Affordable Care Act
<b>Subsidies for Private Coverage</b>	Subsidies are provided to low-income individuals to purchase private insurance.	Commonwealth Care (MA's health insurance program for adults who meet income and other eligibility requirements) provides subsidized private health coverage on a sliding scale for individuals with incomes up to 300% Federal Poverty Level (FPL). Individuals with incomes below 150% FPL are eligible for fully subsidized coverage. ( <i>Health Connector, n.d.-a</i> )	Premium subsidies are provided on a sliding scale for individuals with incomes between 100% and 400% FPL to purchase private insurance in an Exchange. Cost-sharing subsidies are available for those with incomes between 100-250% FPL. An individual's expected contribution ranges from 2-9.5% depending on household income.
<b>SHOP (Small Business Health Options Program) Exchange Eligibility &amp; Subsidies</b>	Certain businesses are required to offer health insurance to their employees or face financial penalties.	Businesses with 50 or fewer employees may offer health benefits to employees and a Section 125 plan (health insurance plans employees can pay for on a pre-tax basis) through the Health Connector's Commonwealth Choice plans. ( <i>Health Connector, n.d.-b</i> )  Chapter 58 does not provide subsidies to small businesses.	Businesses with 100 or fewer employees can access SHOP; however, states can limit participation to businesses with 50 or fewer full-time equivalent employees until 2016 and then expand to businesses with 100+ employees in 2017 or later.  Businesses with fewer than 25 employees and average annual wages of \$50,000 or less may be eligible for a business tax credit if they pay at least 50% of their employees' health insurance costs.
<b>Expansion of Public Coverage</b>	Medicaid coverage will be expanded.	Medicaid was expanded to cover children with family incomes up to 300% FPL. Eligibility levels for adults (parents -133% FPL, pregnant women 200% FPL, and long-term unemployed 100% FPL) remained the same; though, enrollment caps for certain Medicaid programs for adults were raised.	Medicaid was broadly expanded to all individuals under age 65 with incomes up to 133% FPL (plus a 5% automatic income disregard) based on modified adjusted gross income.  In 2012, the US Supreme Court decided that states have the option of whether or not to accept the expansion.





	Similarities between CHAPTER 58 & ACA	Differences between CHAPTER 58 & ACA	
		Chapter 58	Affordable Care Act
<b>Individual Coverage Requirement</b>	Individuals must be enrolled in an insurance plan that meets minimum requirements or face a financial penalty. The minimum requirements are satisfied automatically by public insurance coverage.	<p>Minimum coverage requirements are known as minimum creditable coverage (MCC).</p> <p>The financial penalty is up to 50% of the lowest cost premium an individual would have qualified for through the Connector.</p> <p>In addition to public insurance coverage, MCC is also automatically satisfied by student health coverage and young adult plans held by eligible residents.</p>	<p>Enrollment in a qualifying health plan is required to avoid the individual responsibility payment.</p> <p>The financial penalty is the greater of the following two amounts: a flat dollar amount that increases at a fixed rate, or a percentage of one's household income of 1%, 2%, and 2.5% in 2014, 2015, and 2016, respectively.</p> <p>Fully insured products sold to small employers and non-group insurance products sold to residents must include the EHB and expanded preventive services, with the exception of grandfathered plans.</p>
<b>Employer Requirements</b>	Certain employers must offer insurance coverage to their employees or face a financial penalty.	Employers with 11 or more employees are required to provide insurance or pay a "Fair Share" contribution of up to \$295 annually per employee. Employers are required to offer a "cafeteria plan" that permits workers to purchase health care with pre-tax dollars or face a "free-rider surcharge" if employees make excessive use of uncompensated care.	Employers with 50 or more full-time employees that do not offer coverage are required to pay a fee of \$2,000 per employee, excluding the first 30 employees if one of the employees gets a tax credit or cost sharing subsidy on the health insurance marketplace. Employers with over 200 employees must automatically enroll employees into plans offered by the employer. Employees may opt out of coverage.
<b>Exemptions to Coverage Requirement</b>	Some populations are exempted from the individual mandate, including those with religious objections and those certified as having economic hardships.	Other populations exempted: those who are without coverage for less than 90 days during the year.	Other populations exempted: those with incomes below the income-tax-filing threshold, undocumented immigrants, Native Americans, and those who are without coverage for less than three consecutive months during the year (the exemption applies only to the first gap in coverage).

Adapted from Kaiser Family Foundation's "Massachusetts health care reform: Six years later" (2012), Patel, et al.'s "From MA to 1600 Pennsylvania Avenue: Aboard the Health Reform Express" (2010), Blavin, et al.'s "Massachusetts under the Affordable Care Act: Employer-related issues and policy options" (2012), and Blumberg, et al.'s "Reconciling the Massachusetts and federal individual mandates for health insurance: A comparison of policy options" (2012).



## V. Impact of Chapter 58 on Public Health Trends & Outcomes

### A. OVERVIEW

The following section gives an overview of data documenting the impact of Chapter 58 upon health care coverage, access, utilization, and, where possible, health outcomes. Data presented below was gathered from reports, presentations, and surveys, such as the Behavioral Risk Factor Surveillance System (BRFSS).

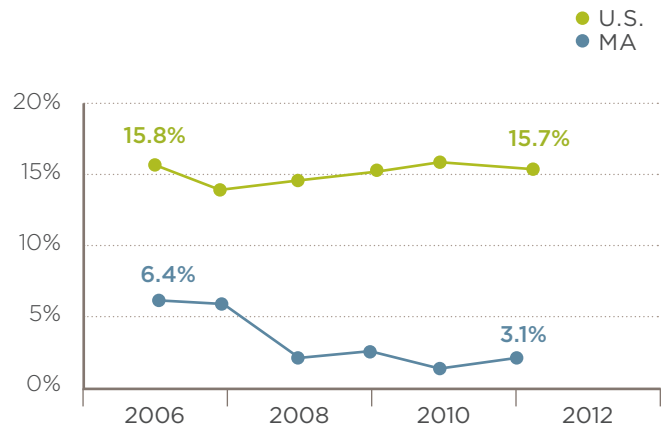
While Chapter 58 passed in 2006, it should be noted that, for many health indicators, the full impact of reform efforts may take years to manifest. Additionally, while the most recent publicly available data was utilized for the following analyses, there is a time lag in data availability. Finally, while there are associations between health indicators and the impact of Chapter 58, for many indicators, it is not possible to completely disentangle the effects of Chapter 58 from other factors, such as concurrent public health programs and campaigns and the economic recession.

### B. HEALTH INSURANCE COVERAGE AND TYPE

#### Overall Health Insurance Coverage Rates

By 2011, MA succeeded in expanding coverage to 97% of residents overall, cutting in half an already low uninsurance rate from 6.4% in 2006 to 3.1% in 2011. With non-significant yearly fluctuations, the percentage of insured has stabilized at 97-98%. This low rate is in contrast to the U.S., which has essentially stayed at 15-16% uninsured for more than seven years (**Figure 2**). (*Center for Health Information and Analysis, 2013*).

**FIGURE 2: UNINSURANCE RATES, U.S. VS. MA, ALL AGES**



**Source:** MA CHIA Household Insurance Survey (2006–2011) and U.S. Census Bureau Current Population Survey (CPS) (2006–2011).<sup>1</sup>

<sup>1</sup>Estimates for the MA rates are from the Center for Health Information and Analysis (CHIA). See <http://www.mass.gov/chia/docs/ri/pubs/13/mhisreport-1-29-13.pdf> for survey methodology. Estimates for the U.S. rates are from the Current Population Survey (CPS) U.S. Census Bureau.

When stratifying for non-elderly adults ages 18-64 (the population most likely to be uninsured before health reform), the MA uninsurance rate steadily decreased from approximately 13.6% in 2006 to 4.3% in 2011. In contrast, the percent of uninsured non-elderly adults in the U.S. increased slightly from 20.2% to 21.2% during the same time period (*Center for Health Information and Analysis, 2013*).

By 2011, nearly every major demographic group in MA was within a few percentage points of universal coverage, including 98.1% of the state's children (*Center for Health Information and Analysis, 2013*).



Furthermore, there was a drop in the percentage of MA adults who were ever uninsured during the past year (from 19.5% in 2006 to 12.1% in 2010) and MA adults uninsured for twelve months or more (from 8.8% in 2006 to 3% in 2010) (*Long, Stockley, & Dahlen, 2012*).

### Types of insurance coverage

While the majority of MA residents (79% in 2010) continue to receive coverage through the private group market, a significant number of those newly insured since Chapter 58 (19%) are MassHealth and Commonwealth Care members (MA's Medicaid equivalents) (*Division of Health Care Finance and Policy, 2011*). See **Figure 3**.

Although the economic downturn likely contributed to the slight declines seen in the private group market between 2006 and 2010, there was no evidence of public coverage substituting for, or “crowding out” existing employer-sponsored insurance (ESI) coverage. In fact, multiple studies found that ESI coverage increased or remained stable, depending on the data sources and statistical modeling used (*Long et al., 2011*). Of non-elderly adults, 68% reported coverage through an employer in 2010, which is significantly higher than the level in 2006 (64.4%) (*Long et al., 2012*). Additionally, employers reported that they were more likely to offer coverage to their workers in 2009 (76%) than in 2005 (70%) (*Long et al., 2011*).

### C. ACCESS TO CARE AND UTILIZATION

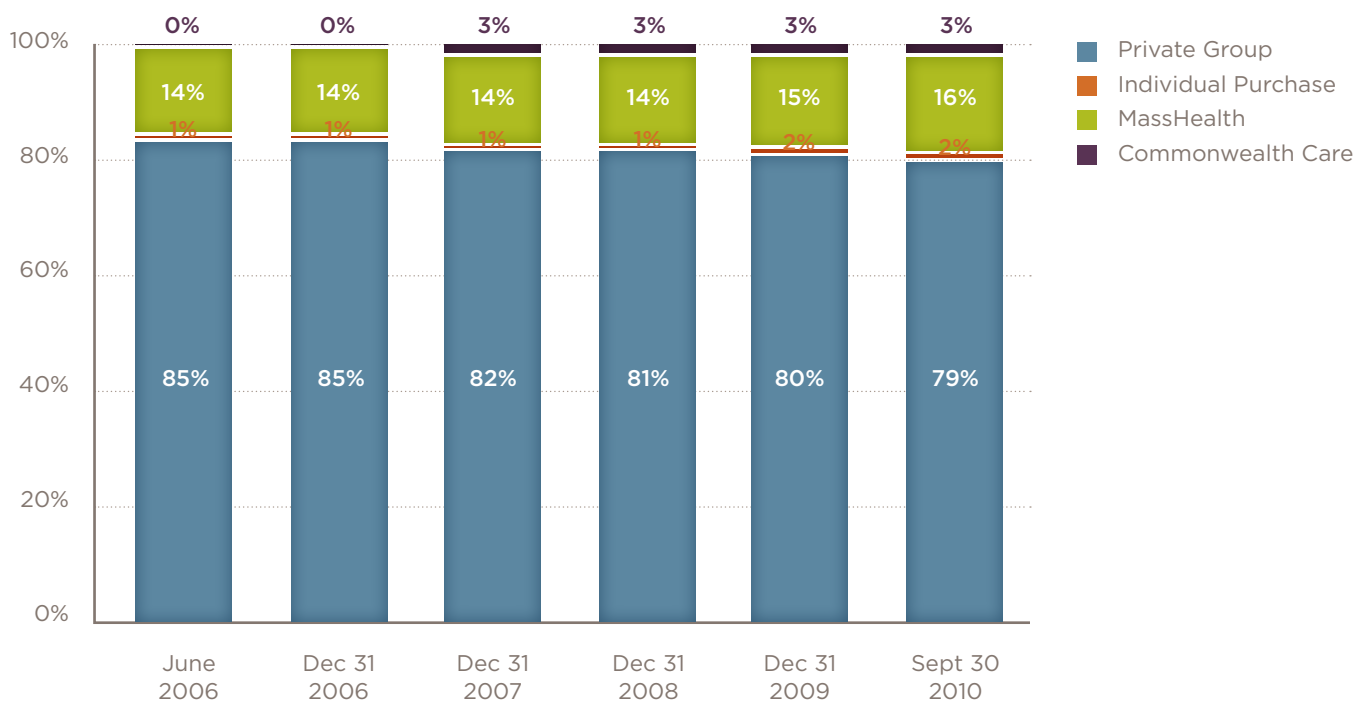
As intended, the expansion in insurance coverage appears to be responsible for the statistically significant increase in access to health care services between 2006 and 2010. Data from the Massachusetts Health Reform Survey indicate that access to care indeed improved among non-elderly adults in MA after the implementation of Chapter 58 (*Blue Cross Blue Shield of MA Foundation, 2011*).

Using identification of a usual source of health care as well as preventive and dental care visits over the past year as indicators, the data suggest that access to care increased among non-elderly adults between 2006 and 2010. All three of these indicators rose after Chapter 58 was implemented in MA, with over 90% of MA residents reporting having a personal health care provider in 2010 vs. 86% pre-reform (**Figure 4**).

Furthermore, in 2010, 76% of residents reported having had a routine check-up and 73% reported seeing a dentist; these numbers are an increase from 70% and 68%, respectively, in 2006.



**FIGURE 3. NON-ELDERLY INSURED POPULATION BY INSURANCE TYPE, 2006-2010<sup>2</sup>**

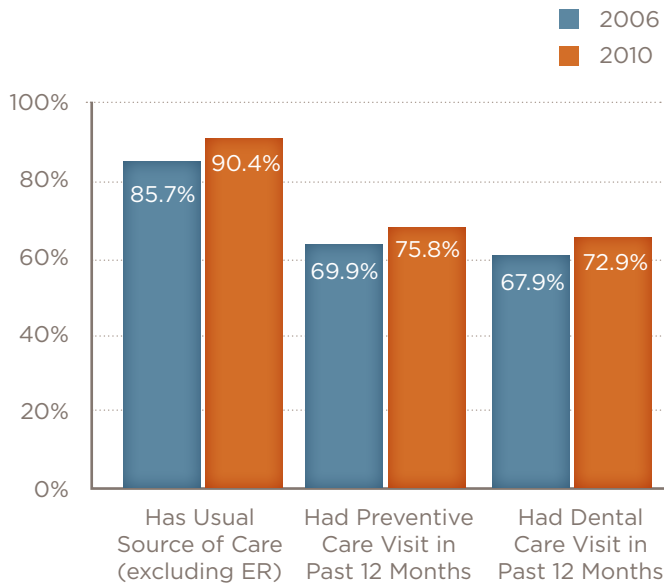


**Source:** Membership reported to DHCFP by health plans and MassHealth; Commonwealth Care enrollment data are from the Health Connector.

<sup>2</sup>Individual purchase includes Commonwealth Choice and the residual non-group market. MassHealth enrollment does not include members with partial coverage or premium assistance; they are counted in the private plans. These members include seniors, MassHealth Limited, individuals with third party liability (e.g., disabled with Medicare), and Family Assistance/Insurance Partnership. Commonwealth Care includes enrollment in Boston Medical Center HealthNet Plan, Fallon, and Neighborhood Health Plan. Third quarter enrollment data for Network Health are not included. Data reflect total enrollment, rounded to the nearest thousand, as of the specified date. Totals include MA residents enrolled in health insurance products offered by the following health plans and their affiliates: Aetna Health, Blue Cross Blue Shield (BCBSMA, HMO Blue, and Massachusetts residents insured through other Blue Cross Association plans), Boston Medical Center HealthNet Plan, CeltiCare, CIGNA, ConnectiCare, Fallon, Great-West Health Care, Harvard Pilgrim Health Care, HealthMarkets (MEGA Life and Health Insurance Company, Mid-West National Life Insurance Company of Tennessee, and the Chesapeake Life Insurance Company), Health New England, MassHealth, Neighborhood Health Plan, Network Health, Tufts, UniCare and UnitedHealthcare. Data exclude the following insured MA residents: federal employees not insured through a commercial carrier, active duty military personnel and their families who receive services through Campus/Tricare only, and inmates of the Department of Correction. Numbers may not match previous editions of Key Indicators, as health plans may revise enrollment information in previous quarters. Percentages may not sum to 100 due to rounding.

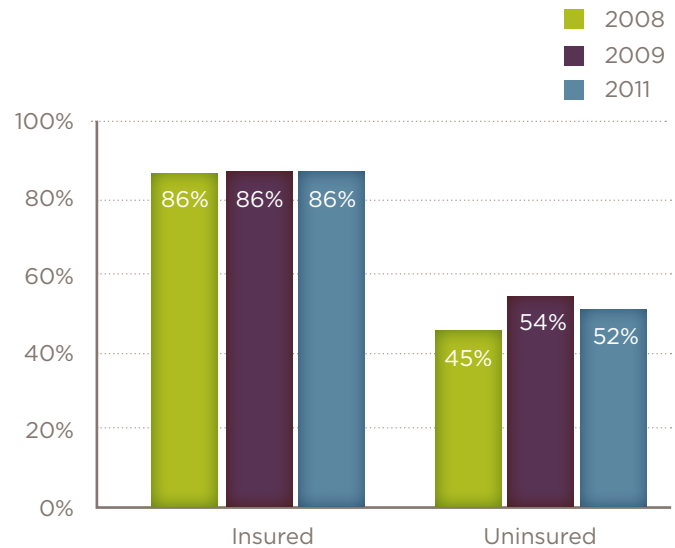


**FIGURE 4. TRENDS IN USUAL SOURCE OF CARE AND DOCTOR VISITS IN MA FOR NON-ELDERLY ADULTS, 2006 & 2010**



**Source:** Massachusetts Health Reform Survey, 2006–2010. Percentage changes between 2006 and 2010 are statistically significant.

**FIGURE 5. NON-ELDERLY ADULTS WITH A DOCTOR VISIT IN THE PAST 12 MONTHS BY INSURANCE STATUS IN MA**



**Source:** Center for Health Information and Analysis, 2012, retrieved from <http://www.mass.gov/chia/docs/r/pubs/13/mhis-2011-detailed-tables-2-17-12.xlsx>

It can be extrapolated that the expansion in insurance coverage is likely responsible for the increase in health care access; furthermore, with an increase in health care access, outpatient health care utilization increased, as well. **Figure 5** indicates that insured non-elderly adults were significantly more likely than those who remained uninsured to have had any doctor visit in the previous 12 months, 86% vs. 52% in 2011 (*Center for Health Information and Analysis, 2013*).

There was a striking difference in preventive visits between insured and uninsured residents as well: 74% of those insured reported having had a preventive visit in the previous 12 months, nearly double the 37% of uninsured who received preventive care (*Center for Health Information and Analysis, 2013*).

## D. CHRONIC DISEASE MANAGEMENT

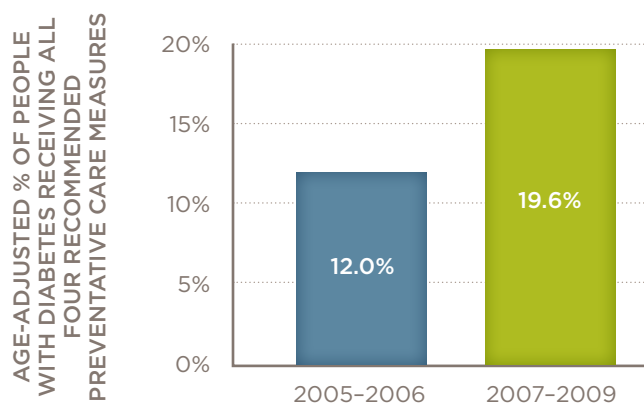
### Diabetes

In the three-year period following the implementation of Chapter 58, diabetes management significantly improved. As shown in **Figure 6**, the proportion of individuals with diabetes who reported receiving recommended preventive care — annual eye and foot exams, annual flu shots, and twice-yearly checks of A1C levels — increased from 12% to 19.6% with statistical significance.

### Asthma

Access to care and preventive care among non-elderly adults with asthma improved as well. As illustrated in **Figure 7**, there was a significant increase in insurance coverage among adults with asthma, from 93% to 98% between 2006 and 2010. Fewer residents challenged by asthma reported cost as a barrier to seeing a physician, a drop of four percentage points during the same time period, from 15% to 11%. Regarding preventive care, the increase in the number of people with asthma who received recommended annual flu shots after the implementation of MA’s Chapter 58 was statistically significant, 48% after reform vs. 36% prior to reform.

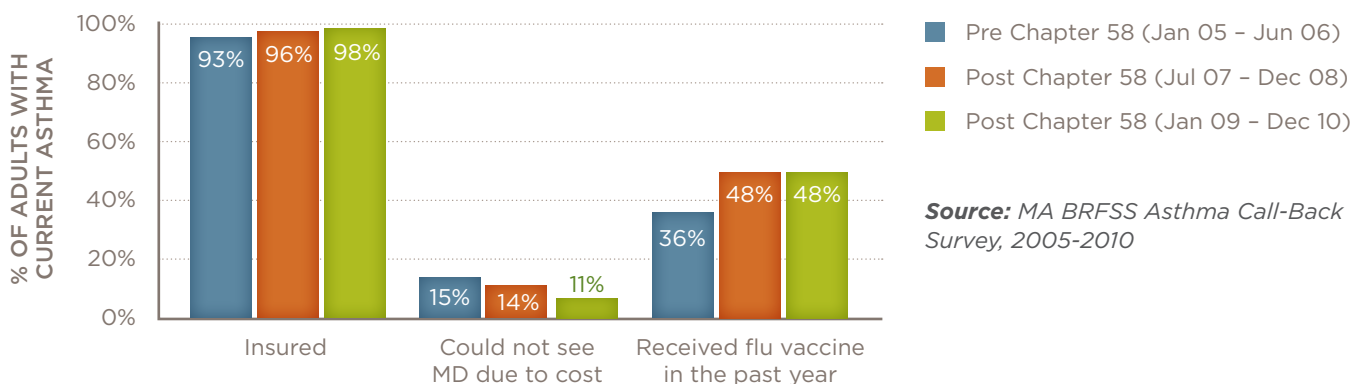
**FIGURE 6. TRENDS IN DIABETES MANAGEMENT IN MA, 2005-2009**



Source: MA BRFSS, 2005-2009

It is important to note that improvements in asthma care may also have been influenced by the activities of MA’s Asthma Prevention and Control Program established in 2002. This is a robust program that introduces innovative interventions in low-income urban communities, employs a home-based model that reduces hospitalizations by addressing environmental factors that exacerbate asthma symptoms, and supports the work of asthma coalitions. While this program was established pre-reform, disentangling the impact of Chapter 58 and the ongoing work of MA’s Asthma Prevention and Control Program on asthma care indicators is difficult to do.

**FIGURE 7. ASTHMA CARE INDICATORS IN MA, 2005-2010**



Source: MA BRFSS Asthma Call-Back Survey, 2005-2010



## E. INFECTIOUS DISEASES

### Tuberculosis

Prior to 2006, control of tuberculosis (TB) relied disproportionately on specialized state and federal funding for public health and TB clinics. Patients were not asked about their insurance status. It was presumed that many patients whose care was managed in state-funded TB clinics were uninsured or had limited health insurance. TB medical management, education, surveillance, and laboratory services were not tied to insurance reimbursement. After the implementation of Chapter 58, it was presumed that access to health care improved, as more individuals diagnosed with TB acquired health insurance. In addition, the process of implementing health care reform encouraged a review of the pre-existing policy of providing free care rather than billing insurers. As a result, funded sites were required to ask patients if they would like to use their insurance and have the capacity to bill. The MA Department of Public Health (MDPH) began training laboratories, health centers, hospitals, and specialty clinics to expand third-party billing for specific TB services. Revenue from insurance now supplements the cost of the provision of TB services, and treatment for TB has begun to shift to non-specialized settings such as community health centers. In addition to improved coordination of care, electronic systems employed in traditional clinical settings, such as electronic medical records and others, offer the potential to improve TB information sharing, case investigation, and outbreak management. (*Etkind, 2011*)

However, despite this shift in TB service delivery, gaps in care and management emerged. In some geographic areas with larger subpopulations of residents who are at high risk for TB infection, primary care access is limited by scarcity of providers and/or long waits for appointments, thus increasing the risk of exposing others to the disease. In addition, some aspects of TB management traditionally performed by public health officials are not yet possible to execute in the primary care setting. Primary care providers lack the training, experience, and infrastructure to successfully address both the complex medical and public health aspects key to TB management.

**To address these gaps in care and management, it is essential to define and maintain the public health functions that are still critical for the state to provide, including:**

- Outreach to and incentives for the remaining uninsured subpopulations that tend to be among those at the highest risk of contracting TB (e.g., illegal and/or temporary immigrants, undocumented residents, students, and those with language barriers);
- Identification of and outreach to contacts;
- Proactive monthly patient follow-up and monitoring of adherence to treatment;
- Provision of care during coverage interruptions and access limitations; and
- Management of cluster outbreaks. (*Etkind, 2011*)

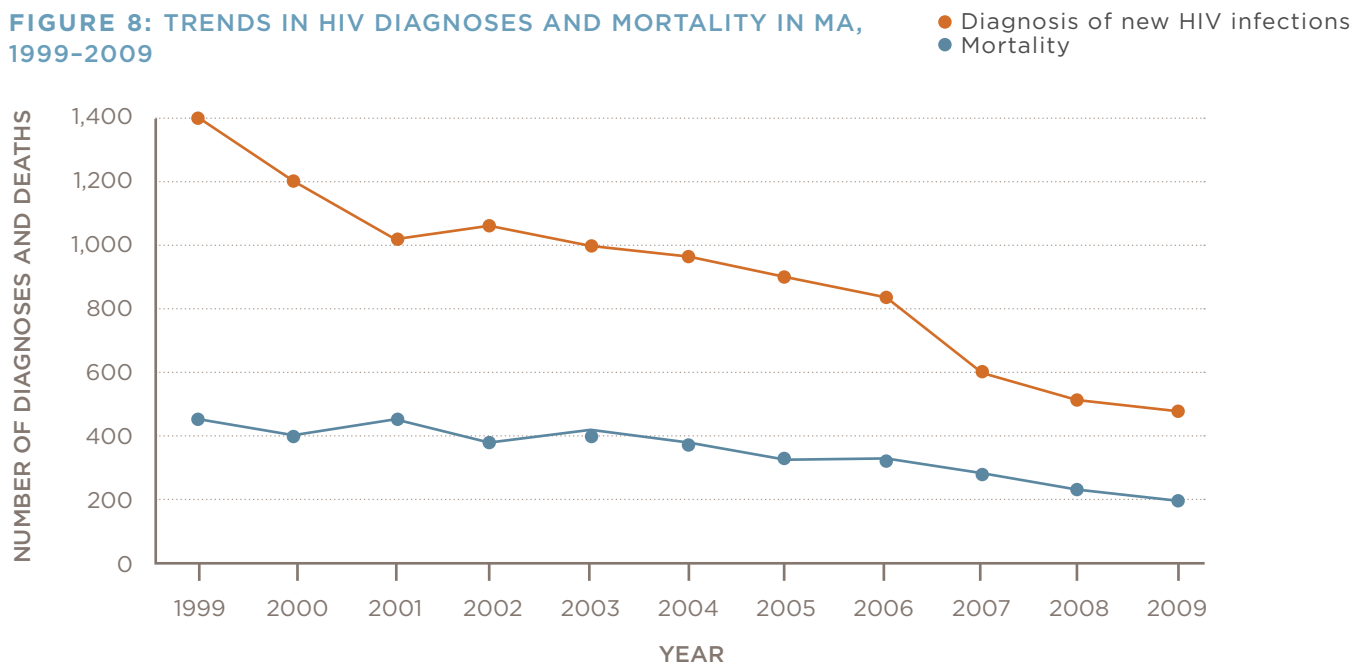


## HIV

Prior to the implementation of Chapter 58, treatment of HIV infection and transmission prevention were significantly more successful in MA compared to the U.S. as a whole. Over 91% of those who needed medications received them versus a national average of 36%. Following the year that Chapter 58 was passed, new HIV diagnoses in MA fell by 25% between 2006 and 2009, as shown in **Figure 8**, while the national rate of HIV diagnosis rose by 2%. This suggests that access to insurance may well have played a role (*Auerbach, 2013; Center for Health Law and Policy Innovation of Harvard Law School, 2012*). Another factor that may have contributed to the decline of new HIV infections is the policy instituted in 2001 to expand eligibility for Medicaid coverage to low-income HIV-positive individuals in the state (*Greenwald, 2011*).

Access to anti-retroviral therapy (ART), previously trending upward, continued to steadily increase after the implementation of Chapter 58 in MA. In 2006, while 90% of HIV patients in MA accessed ART, that percentage rose to 97% by 2010 (*Cranston, 2012*). Given the increased access to ART, the percentage of patients with suppressed viral loads (<400) increased from 65% in 2006 to 71% in 2008 (*Cranston, 2012*). In terms of survival, between 2002 and 2008, AIDS mortality in MA dropped by 44% (vs. 33% decrease U.S.). Importantly, Medicaid spending on inpatient hospitalizations for people with HIV decreased in MA from 2006-2009 (*Center for Health Law and Policy Innovation of Harvard Law School, 2012*).

**FIGURE 8: TRENDS IN HIV DIAGNOSES AND MORTALITY IN MA, 1999-2009**



**Note:** Number of diagnoses reflects year of diagnosis for HIV infection among all individuals reported with HIV infection, with or without an AIDS diagnosis.

**Source:** MDPH HIV/AIDS Surveillance Program, 2012





Individuals covered by health insurance are more likely to access care and, therefore, to have an opportunity to be tested for HIV. Those who test positive are more likely to receive proper treatment if they are insured, including medication that suppresses viral load, and are therefore less likely to infect others. While there is no way to definitively link MA's dramatic reduction in new HIV infections and mortality to increased access to care through health care reform, the evidence suggests there is a connection.

- **Post-Chapter 58 Challenges in HIV Care and the Role of Public Health**

Ongoing challenges remain in HIV care, post-Chapter 58. As the HIV care system transitions from grant-driven to reimbursement-driven funding, it is critical to ensure equitable, accessible provider networks, especially in rural areas.

Additionally, state health departments continue to serve several important roles, such as:

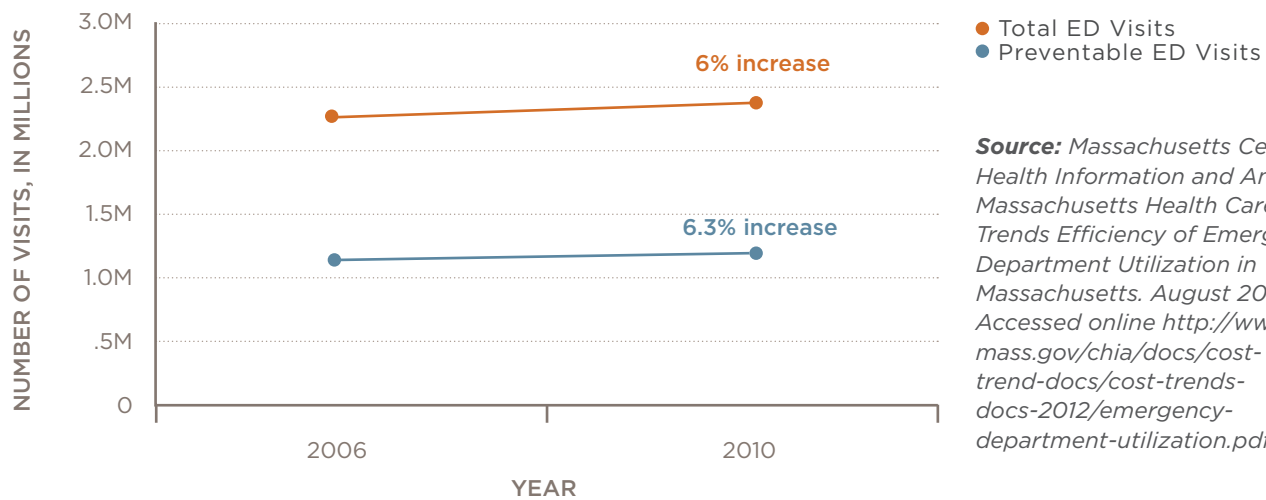
- » Providing quality assurance;
- » Helping to build the capacity of community health centers (CHCs) and other traditional health care settings;
- » Training CHCs and other primary care arenas to provide quality HIV care;
- » Educating patients on how to access and use new health insurance benefits effectively;
- » Sustaining specialized HIV screening, clinical care, and support services; and
- » Guiding policy makers and providers to maximize resources and to consider appropriate allocation of high-cost interventions, preservation, and reimbursement of less expensive yet effective behavioral interventions, and optimal targeting of limited discretionary funding (*Cranston, 2012*).

## Sexually Transmitted Infections (STIs)

As insurance eligibility expanded with the passage of Chapter 58, the expectation was that individuals would access these benefits to seek care for sexually transmitted infections (STI) via primary care providers. This expectation along with recession-related budget pressure led to a decline in state and federal funding. MDPH began to phase out the grants to regional sexually transmitted disease (STD) clinics. The final round of state-funded STD clinic closures occurred in June 2009; however, four clinics maintained services, including a free clinic with reduced hours, a fee-for-service clinic with reduced hours, and a public clinic with other state funding (*Fukuda, 2010*). While service grants ended, MDPH continued to provide free laboratory services and access to disease intervention services at these sites.

Following these shifts, data indicated that overall STI rates did not increase, yet the volume of screenings rose. The reported number of Chlamydia diagnoses increased. The shift in care settings was evidenced by the fact that, after the transition, the majority of syphilis diagnoses were made in primary care settings. There was also a notable shift in demographics of the patients diagnosed with STIs towards greater representation of white, higher-income, and young male population subgroups (*Fukuda, 2010*).



**FIGURE 9: EMERGENCY DEPARTMENTS VISITS IN MA, 2006 AND 2010**

**Source:** Massachusetts Center for Health Information and Analysis. *Massachusetts Health Care Cost Trends Efficiency of Emergency Department Utilization in Massachusetts*. August 2012. Accessed online <http://www.mass.gov/chia/docs/cost-trend-docs/cost-trends-docs-2012/emergency-department-utilization.pdf>.

## F. UTILIZATION OF EMERGENCY SERVICES

Research has shown that even prior to Chapter 58, nearly all patients who visited the emergency department (ED) for care were covered by health insurance (*Delia & Cantor, 2009*). Therefore, it was unlikely that coverage expansion would impact ED utilization rates substantially. Prior to 2006, the volume of ED visits in MA was high compared to the national average, and ED utilization remained high after Chapter 58 went into effect. In 2007, the MA rate of ED visits was 491 per 100,000 residents while the U.S. average was 401 per 100,000 residents (*Long & Stockley, 2010*).

In 2010, it was estimated that 49% of ED visits were preventable or avoidable. Between 2006 and 2010, the total volume of ED visits increased by 6% and preventable/avoidable ED visits increased by 6.3%, a trend consistent with neighboring New England states (see **Figure 9**) (*Chen, Scheffler, & Chandra, 2011*;

*Division of Health Care Finance and Policy, 2012a*). Although volume increased, the annual growth rate for total visits began to drop in 2008. As shown in Table 2, after Chapter 58 was implemented in MA, the annual growth rate of outpatient ED visits declined by 0.3% (total ED visits) and 0.6% (preventable/avoidable visits) (*Division of Health Care Finance and Policy, 2012a*).

According to the Center for Health Information and Analysis (formerly the Division of Health Care Finance and Policy), the annual growth rate was approximately 2.5% between 2006 and 2008, and then dropped to 1.3% between 2008 and 2009 (*Division of Health Care Finance and Policy, 2012*).

In addition, other researchers who examined the trend between 2006 and 2008 looked at overall emergency department use and “low-acuity” visits and summarized that even though low acuity visits decreased slightly, health care reform alone did not cause a dramatic shift in emergency department use (*Smulowitz et al., 2011*).



**TABLE 2: NUMBER OF OUTPATIENT ED VISITS IN MASSACHUSETTS, FISCAL YEAR (FY) 2006 AND FY2010**

	2006	2010	% Increase	Change in Annual Growth Rate
<b>Total ED Visits</b>	2,265,064	2,401,315	6.0%	-0.3%
<b>Preventable/Avoidable ED Visits</b>	1,108,002	1,178,068	6.3%	-0.6%

**Source:** MA Health Care Cost Trends: Efficiency of Emergency Department Utilization in MA, August 2012

**TABLE 3: AVERAGE COST PER OUTPATIENT ED VISIT IN MASSACHUSETTS, FY2006 AND FY2010**

	2006	2010	% Change
<b>Average Cost per Outpatient ED Visit (all)</b>	\$403	\$515	27.9%
<b>Average Cost per Preventable/Avoidable ED Visit</b>	\$372	\$474	27.4%

**Source:** Division of Healthcare Finance and Policy, 2012

The costs of emergency care increased considerably between 2006 and 2010 (Table 3) (Division of Health Care Finance and Policy, 2012a). Interestingly, between 2006 and 2010, the total cost of ED care increased much faster than total ED volume, suggesting that factors other than increases in overall utilization contributed to the increase of total ED costs. However, the growth rate of total costs has been slowing in recent years. The annual growth rate in both total ED costs and preventable/avoidable ED costs dropped substantially over the last three years, from a 12.3% increase between 2007 and 2008 to a 5% increase between 2009 and 2010.

Breaking down ED utilization geographically tells a more nuanced story. One study of selected MA counties identified as those most impacted by Chapter 58, determined by the largest numbers of newly insured residents, demonstrated that these counties showed the largest reductions in non-urgent and primary care treatable ED visits post-reform; i.e., once more residents were insured, fewer used the ED inappropriately (Miller, 2012). After Chapter 58 implementation, the researcher estimated that ED usage in previously high-uninsurance counties showed a 5–8% greater decrease than in low-uninsurance counties for preventable/avoidable visits (Miller, 2012). This decrease in ED usage occurred primarily during the hours when primary care practices are typically open.

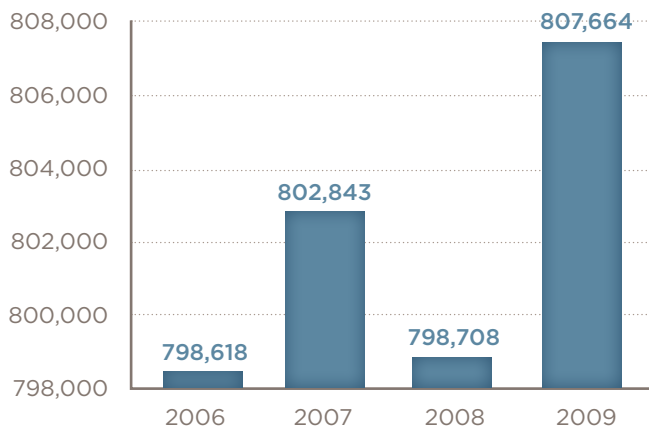
Currently, data comparing disease-specific ED utilization pre- and post-reform are not yet available.



### G. HOSPITALIZATIONS AND PREVENTABLE ADMISSIONS

In general, hospital admissions have remained virtually unchanged in the years since health care reform was enacted, with increases of merely 1%. Preventable hospitalizations have shown an overall decrease, after adjusting for risk (see Figures 10 and 11).

**FIGURE 10. TOTAL NUMBER OF HOSPITALIZATIONS IN MA, 2006-2009**

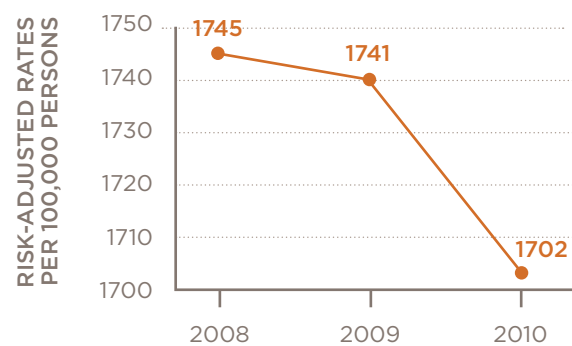


**Source:** Massachusetts Center for Health Information and Analysis, Hospital Utilization Database, 2005-2009. Rates calculated by the Massachusetts Department of Public Health MassCHIP program, <http://www.mass.gov/dph/masschip>

Looking at selected conditions for which hospitalizations could be avoided, there is some discrepancy depending on the health issue. Bacterial pneumonia, a common cause of hospital admissions, saw a decrease of 9% from 2006 to 2009, while asthma admissions rose by 12% (Figure 12).

Assessing the impact of Chapter 58 on hospital readmission rates is not possible at this time. Publicly available data includes only the Medicare population.

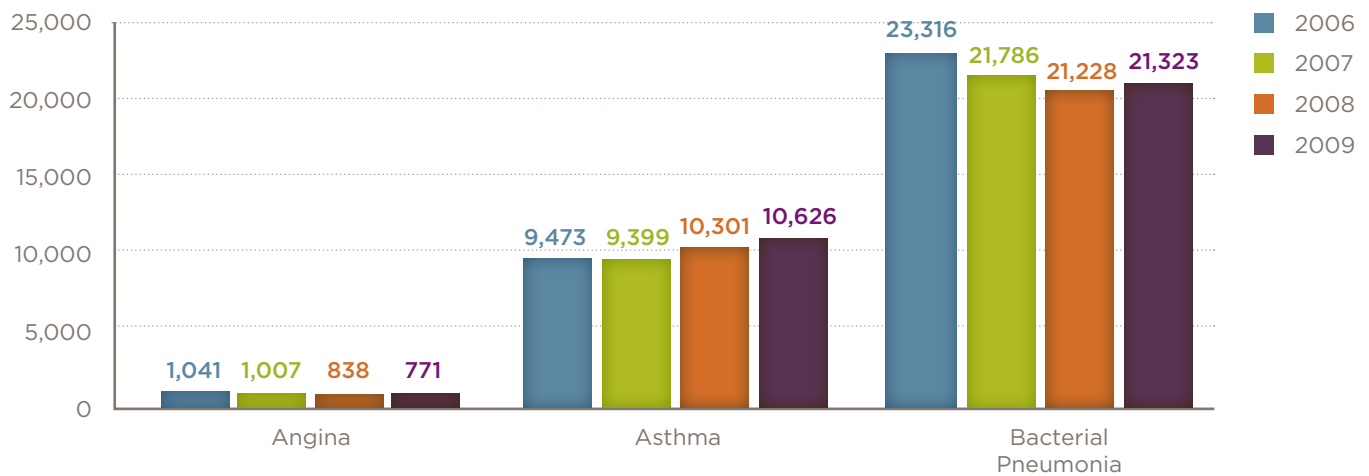
**FIGURE 11: PREVENTABLE HOSPITALIZATIONS IN MA, 2008-2010**



**Notes:** Risk-adjusted rate per 100,000 persons. Years shown are fiscal years. Analysis and methodology by the Massachusetts Center for Health Information and Analysis (CHIA).

**Source:** Massachusetts Health Care Cost Trends Preventable Hospitalizations, August 2012, Appendix A. Accessed online November 2013 <http://www.mass.gov/chia/docs/cost-trend-docs/cost-trends-docs-2012/preventable-hospitalizations-appendix-a.xls>

**FIGURE 12. SELECTED PREVENTABLE HOSPITAL ADMISSIONS IN MA, 2005-2009**



**Source:** Massachusetts Center for Health Information and Analysis, Hospital Utilization Database, 2005-2009. Rates calculated by the Massachusetts Department of Public Health MassCHIP program, <http://www.mass.gov/dph/masschip>

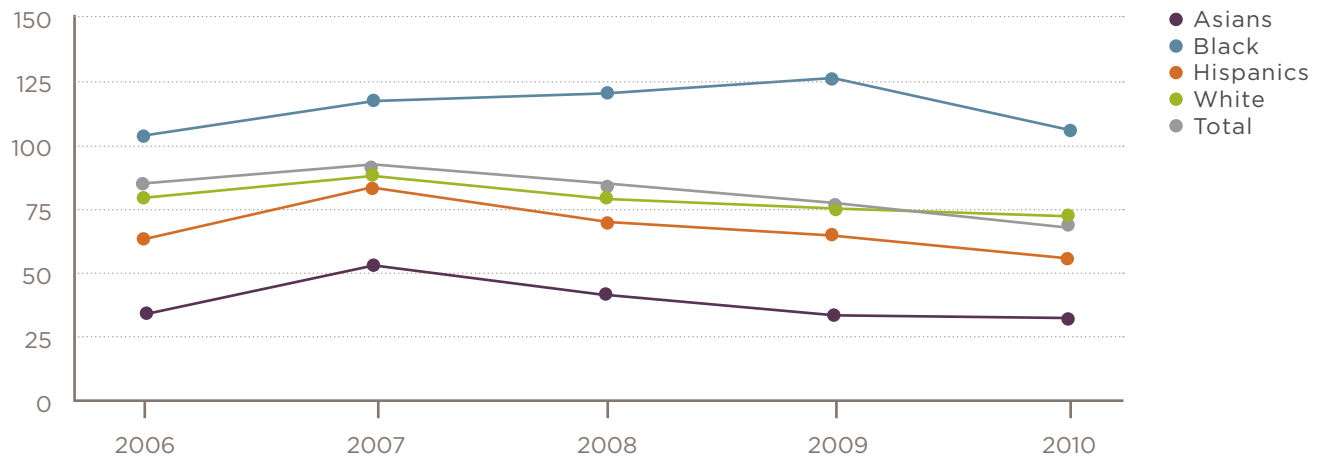
**H: MORTALITY AND AMENABLE MORTALITY RATES**

Amenable mortality rates measure deaths that could have been prevented in the presence of quality, timely health care services. Amenable mortality rates have been falling in the United States since 1999 (Nolte & McKee, 2012). Rates in MA have likewise been declining, with a 29% decline between 2000 and 2010.

However, not enough time has elapsed since the implementation of Chapter 58 to see movement in this area. Informants agree that the underlying assumption is that access to care improves health, but it is unclear at this point whether that translates into lower morbidity, mortality, and/or amenable mortality rates. In MA, the numbers are too small and the time period too short to detect any impact on this outcome (see Figure 13).



**FIGURE 13: MORTALITY AMENABLE TO HEALTHCARE IN MA, 2006-2010 BY RACE AND ETHNICITY**



**Source:** Massachusetts Department of Public Health. *A Decade of Mortality 2000-2009, and Massachusetts Deaths 2010*.  
**Note:** These data have not yet been approved or released.

## I. SCREENING AND PREVENTIVE CARE

Data were available on the following recommended preventive care and screening procedures: annual influenza vaccinations; breast cancer screening; colon cancer screening; and testing of prostate specific antigen (PSA) to screen for prostate cancer. Further exploration of preventive care measures was executed during the qualitative research phase of this work.

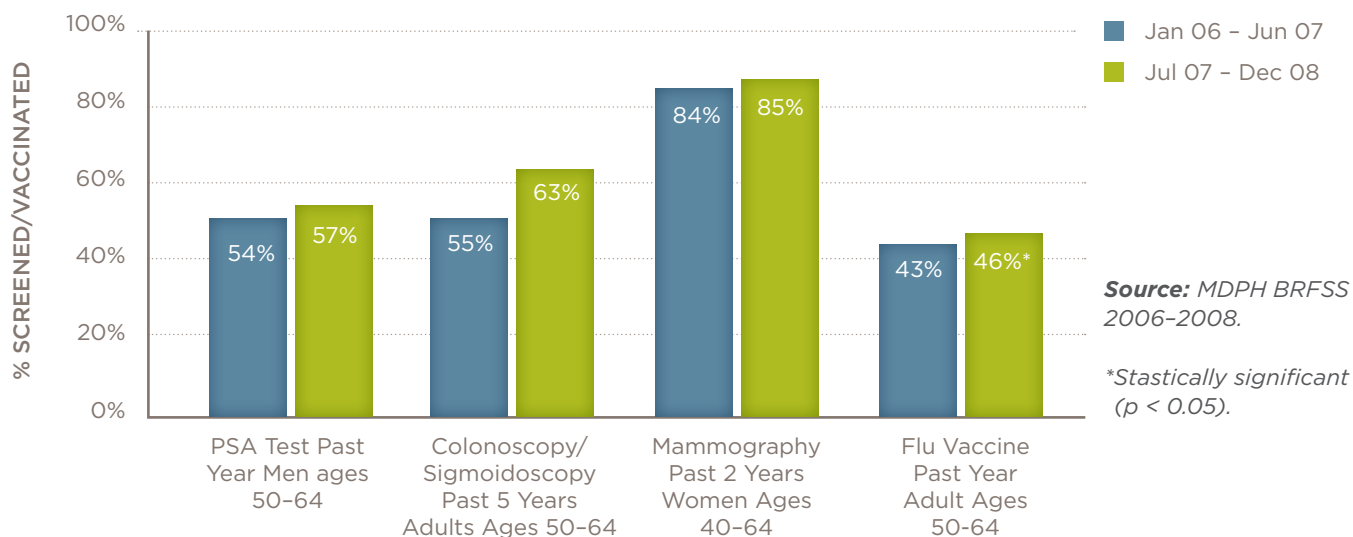
BRFSS data reveal that the proportion of the non-elderly adult population who reported receiving influenza vaccinations within the past year, one measure of preventive care, increased significantly from 43% pre-reform to 46% in the year following Chapter 58 implementation ( $p < .05$ ).

In terms of cancer prevention, there was a statistically significant rise in screenings for colon cancer (Figure 9). The percentage of adults under age

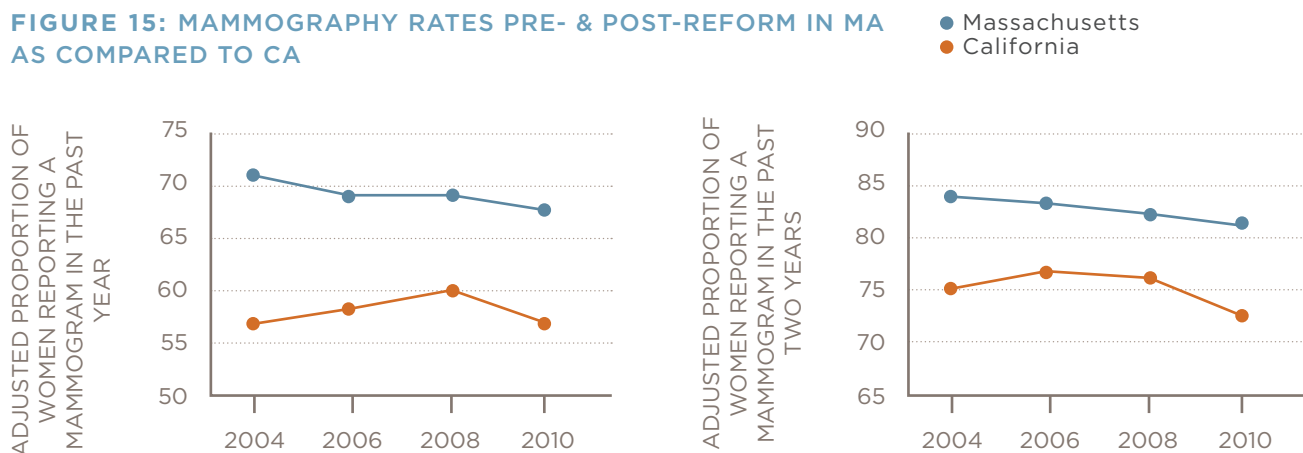
65 who reported receiving a colonoscopy or sigmoidoscopy in the previous five years increased from 55% to 63% one year post-Chapter 58. While there is an ongoing clinical debate about the guidelines for using laboratory testing of PSA to screen for prostate cancer, PSA testing rose from 54% to 57% one year after Chapter 58. This finding was not statistically significant.

Reports of utilization of mammography for breast cancer screening within the past one or two years remained stable immediately post-Chapter 58 (Figure 10). The proportion of women diagnosed with stage 1 breast cancer remained level after health care reform, as well (Keating, Kouri, He, West, & Winer, 2013). No geographic or regional trends in mammography rates have been detected since Chapter 58's implementation. Researchers hypothesize that the stability of these rates may be partially attributable to the relatively high pre-reform mammography penetration (Keating et al., 2013).

**FIGURE 14. SCREENINGS AND FLU VACCINATIONS – ADULTS <65 IN MA**



**FIGURE 15: MAMMOGRAPHY RATES PRE- & POST-REFORM IN MA AS COMPARED TO CA**



**ADJUSTED PROPORTION WITH MAMMOGRAM IN THE PAST YEAR**

YEAR	MA	CA	P value for interaction of region year*
2004	71.1	56.9	.18
2006	69.2	59.0	reference
2008	69.5	60.3	.72
2010	69.0	56.2	.34

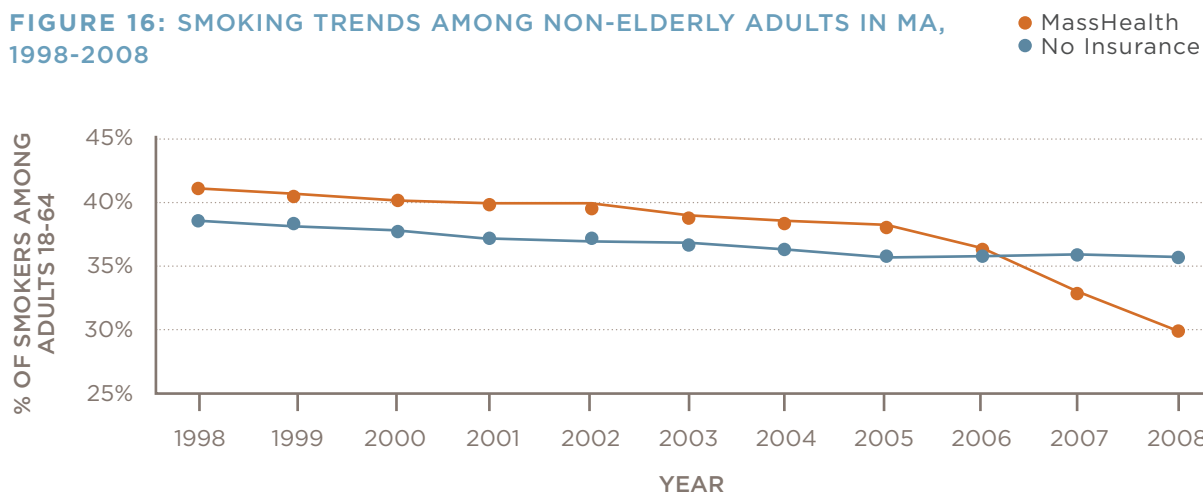
**ADJUSTED PROPORTION WITH MAMMOGRAM IN THE PAST 2 YEARS**

YEAR	MA	CA	P value for interaction of region year*
2004	84.3	75.0	.34
2006	83.0	76.0	reference
2008	81.8	75.8	.60
2010	81.4	72.5	.58

**Source:** Keating, et al., 2013

\* Using propensity score and BRFSS weighted data, in a logistic regression model also adjusted for patient characteristics.



**FIGURE 16: SMOKING TRENDS AMONG NON-ELDERLY ADULTS IN MA, 1998-2008**

Source: Land, et al. 2010

## J. SMOKING CESSATION

Chapter 58 mandated coverage of all FDA-approved tobacco cessation pharmacotherapies and behavioral counseling for the MA Medicaid population. The institution of this benefit in 2006 contributed to a 26% drop in smoking prevalence among MassHealth (Medicaid) members — the sharpest drop in tobacco use in many years. Smoking prevalence among the uninsured changed very little after July 2006, but the MassHealth population saw a sharp and significant decrease from 38% pre-benefit to 28% just 2.5 years post-Chapter 58 (Figure 16) (Land et al., 2010).

This decrease in prevalence began the month the MassHealth benefit was implemented. Medicaid smokers were much more likely to have had tobacco cessation medications prescribed (82%) than those who were privately insured (64%) and had a significantly higher utilization of these medications (33% among MassHealth smokers vs.

24% among privately insured smokers) (Office of Surveillance, Epidemiology, and Laboratory Services, 2010). Successful quit attempts rose from 6.6% (2006) to 19% (2008) among MassHealth smokers (Table 4) (Land et al., 2010).

In addition, the decrease in smoking led to another benefit: a reduction in hospitalizations for cardiovascular disease (CVD) in this population. A study in 2010 compared CVD hospital admissions for those members who used the tobacco cessation benefit with a comparable group of members who did not use the benefit. The authors of the study adjusted for health risks, season, demographics, statewide influenza rates, and the implementation of the state's smoke-free workplace law and found there was a 46% decrease in the likelihood of hospitalization for acute myocardial infarction and a 49% decrease for coronary atherosclerosis (Land et al., 2010).



The program demonstrated economic benefits, as well. The return on investment (ROI) was calculated to be \$2.12 for each \$1 invested in the benefit (*Massachusetts Department of Public Health, 2012*).

**TABLE 4: PREVALENCE AND QUIT ATTEMPTS AMONG MEDICAID SMOKERS PRE- AND POST-CHAPTER 58**

	2006	2008
<b>Smoking Prevalence Among Mass Health Members</b>	38% [vs. 16% of total MA population]	28%
<b>Successful Quit Attempts</b>	6.6%	18.9%

**Source:** MDPH, *Tobacco Cessation and Prevention Program, 2012*.



## VI. Impact of Chapter 58 on the Safety Net

### A. OVERVIEW

The research strongly asserts that maintaining a strong safety net system that supports low-income individuals has been absolutely necessary in the MA health care reform context. There continues to be both need and demand for safety net services. As one author put it, “Following reform, the safety net’s strength remains a critical part of MA’s efforts to provide universal access” (*Hall, 2010*).

Challenges to upholding the safety net that have been documented in MA include financing difficulties for safety net providers (due in part to inadequate levels of subsidized funding via Medicaid payments), physician shortages, the effect of the economic downturn, and perceptions by lawmakers that certain safety net services may no longer be needed. The MA experience shows how constant monitoring, mid-course adaptations, creative remedies, and collaborations have supported success in the health care reform context.

**MA’s safety net system, as defined for this literature review, is comprised of:**

- Safety net providers, which refers to providers at community health centers (CHCs) and “safety net hospitals”, which primarily serve low-income residents;
- Health departments and public health programs that ensure care for vulnerable populations around health issues and needs such as STDs, TB, immunizations, smoking cessation, family planning, and breast cancer screening;
- The Health Safety Net (HSN) fund that compensates certain community health centers and hospitals for services provided to the uninsured and underinsured; and
- Medicaid coverage through “MassHealth”. (*American Public Health Association, 2009; Hall, 2010; Ku, Jones, Shin, Byrne, & Long, 2011; National Association of Public Hospitals and Health Systems, 2009*)

The literature researching the impact of Chapter 58 on the different areas of MA’s safety net is limited. Most existing literature in this realm focuses upon the impact of Chapter 58 on safety net providers and the HSN, with fewer sources speaking to the impact on public health programs. Therefore, this review will primarily focus on those aspects.

### B. INCREASED SAFETY NET PROVIDER UTILIZATION

Existing literature uses the term “safety net providers” to indicate CHCs and safety net hospitals (e.g., public or charity hospitals) that offer inpatient or outpatient care (*Ku, Jones, Shin, Byrne, et al., 2011; National Association of Public Hospitals and Health Systems, 2009*). The MA experience has shown that because there continue to be people who remain uninsured, lack adequate coverage, or experience other barriers to care under health care reform, safety net supports are needed for these individuals and the providers who treat them (*Raymond, 2011a*). Even as the number of uninsured people in MA fell, the use of MA’s CHCs and safety net hospitals grew and the number of patients (both with and without insurance) receiving care from safety net providers increased substantially (*Hall, 2010; Ku, Jones, Shin, Byrne, et al., 2011*).



**TABLE 5: CHANGES IN PATIENT VOLUME AND INSURANCE STATUS AT FEDERALLY QUALIFIED HEALTH CARE CENTERS IN MA**

Patients	Calendar Year				
	2005	2006	2007	2008	2009
<b>Total (#)</b>	431,005	446,559	482,503	535,255	564,740
<b>Uninsured (%)</b>	35.5	32.7	25.6	21.4	19.9
<b>Medicaid/CHIP (%)</b>	37.6	41.7	41.8	42.0	42.3
<b>Medicare (%)</b>	7.2	7.3	7.9	8.2	8.3
<b>Commonwealth Care/ other public insurance (%)</b>	0.8	0.5	5.5	8.8	10.1
<b>Private health insurance (%)</b>	18.9	17.8	19.2	19.5	19.4

**Abbreviation:** CHIP (Children's Health Insurance Program)

**Note:** Percentages may not total 100 because of rounding.

**Source:** Ku et al., 2011

### CHC utilization

From 2005 to 2009, there was a 31% or 134,000-person increase in those served by CHCs (Table 5). CHC utilization illustrates how safety net providers have become an even more important source of primary care and other services post-reform to those who are uninsured. One study of safety net patients showed that while the total number of uninsured patients treated at CHCs declined, the ratio of CHC patients to uninsured state residents rose from 22% in 2006 to 38% in 2009, making CHCs important health care providers for uninsured MA residents (Ku, Jones, Shin, Byrne, et al., 2011).

### Safety net hospital utilization

Furthermore, the number of low-income residents who sought care at safety net hospital systems increased (*National Association of Public Hospitals and Health Systems, 2009*). Non-emergency ambulatory care visits to clinics of safety net hospitals grew twice as fast as visits to non-safety net hospitals from 2006 to 2009 (Ku, Jones, Shin, Byrne, et al., 2011). Although inpatient admissions at both safety net and non-safety net hospitals grew similarly (about 2%) between 2006 and 2009, ambulatory care visits grew by 9.2% for safety net hospitals, while private hospitals saw less than half of that growth (4.1%). This increase in ambulatory care use in safety net hospitals is consistent with safety net hospital administrators' reports of an emphasis on shifting care to outpatient settings (Ku, Jones, Shin, Byrne, et al., 2011).



### C. INTENSIFIED ROLE OF SAFETY NET PROVIDERS IN ENROLLMENT

#### Safety net providers as patient navigators

Beyond the provision of care for vulnerable populations, safety net providers were critical to help people both enroll in health insurance programs and access care. Engaging community health workers in culturally competent outreach and enrollment strategies increased access to primary care (*Rosenthal et al., 2010*). Safety net providers, such as community health workers, worked with clients to determine which health plan was most appropriate for them and helped to explain how the health plans worked, including provider participation (*Raymond, 2011a*). Additional funding came with this role. In the first four years of implementation, MA appropriated \$11.5 million in grants for community groups to provide outreach, education activities, and enrollment assistance statewide. Private funding, including funding from Blue Cross Blue Shield of Massachusetts, has awarded more than \$2.4 million in outreach grants since 2006 (*Raymond, 2011a*).

While working with patients to navigate the health system and access care will continue to be a need that can be filled by safety net providers, continued funding will be required to support the sheer volume of patients seeking enrollment assistance post-reform (*Ku et al., 2009*).

### D. UNDERSTANDING THE SAFETY NET PATIENT POPULATION IN MASSACHUSETTS

With Chapter 58's passage, some wondered if there would be diminished need or demand for safety net providers if uninsured individuals gained coverage and had a broader selection of providers. The literature shows that safety net patients continue to seek

services at CHCs and safety net hospitals even when more options are available.

One way to understand this trend is to examine which patients are seeking out safety net services and why they are choosing them. A key study in this arena defines "safety net patients" as "those who reported that their usual source of care was a CHC, a public clinic, a hospital outpatient department, an emergency department, or a place that provides free or reduced-price care to low-income or uninsured people" (*Ku, Jones, Shin, Byrne, et al., 2011*). This definition accounts for the fact that some patients cannot distinguish between CHCs, public clinics, or private clinics. The aforementioned study especially focused on non-elderly adults (individuals aged 18–64) whose incomes were below 300% of the poverty line (the income limit for Commonwealth Care), as they were identified as the primary target for the safety net (*Ku, Jones, Shin, Byrne, et al., 2011*).

#### According to this study, safety net patients in Massachusetts:

- Comprised about 24% of the overall adult population, 39% of the population with incomes below 300% of the poverty line, and 44% of those with incomes below 150% of the poverty line;
- Utilized general medical visits, preventive visits, and specialty visits at similar rates to adults overall in the state; and
- Utilized the emergency room more frequently than adults overall (one-third of lower-income safety net patients used an emergency department for a nonemergency condition, compared with 14.7% of all adults). (*Ku et al., 2011*)



**TABLE 6: REASONS CARE SOUGHT FROM SAFETY NET FACILITY IN MA**

Reason <sup>a</sup>	Safety net-Covered Adults, % <sup>b</sup>
Convenient	79.3
Affordable	73.8
Availability of services other than medical care	52.0
Problem getting an appointment at a non-safety net facility	25.2
Staff able to speak patient's primary language	8.2

<sup>a</sup> Among patients who reported visiting a facility that provides care at low or no cost for those who have low incomes or are uninsured

<sup>b</sup> Aged 18-64 years, with income below 300% of the poverty line (n=309).

**Source:** Ku et al., 2011

In general, about 67% of safety net patients had public insurance coverage and were more likely to have public insurance rather than private compared with others in the state. Nine percent were uninsured (Ku, Jones, Shin, Byrne, et al., 2011).

#### Those that remained uninsured post-Chapter 58 were more likely to be:

- Male (63.2%);
- Hispanic (12.6%);
- Non-citizen (6.8%)
- Low-income (32% earn < 150% of the federal poverty level; and 35% earn between 151–299% of the federal poverty level); and/or
- Non-working or working part time. (Auerbach, 2013; Bigby, 2011)

Patients who used safety net services did not perceive these facilities as providers of last resort; even after the passage of Chapter 58, many preferred and sought out care at these facilities due to geographical and cultural accessibility, the types of care and services provided (e.g., translation, social work, transportation, etc.), as well as their convenience and affordability (Table 6) (American Public Health Association, 2009; Ku, Jones, Shin, Byrne, et al., 2011; National Association of Public Hospitals and Health Systems, 2009). In addition, safety net providers were engaged as patient navigators, as they were primed to help ensure that low-income individuals newly eligible for insurance could be enrolled in the right program and have the ability to retain existing provider relationships even as they moved between programs (Ku, Jones, Shin, Byrne, et al., 2011; Snyder, Dolatshahi, Hess, & Kinsler, 2012).



## E. FINANCIAL IMPACT OF CHAPTER 58 ON THE SAFETY NET AND PROVIDERS

### Financing the safety net

As previously mentioned, the MA experience shows that despite the decline of uninsured patients in public programs, patients previously not accessing the system disproportionately sought their health care through safety net providers primarily because of their convenience, affordability, comprehensive nature, language services, and availability for appointments.

**The combination of the following factors led to the increased need for subsidies for safety net facilities even after Chapter 58:**

- Safety net facilities serve a disproportionate share of the remaining uninsured individuals and even more of those who receive Medicaid;
- Safety net facilities have less ability than others to shift costs to private insurance because of the populations they serve; and
- Revenue from public programs, especially Medicaid, remains the dominant source of income for safety net facilities, which often pays lower for services than private sources. (*Ku, Jones, Shin, Byrne, et al., 2011*)

In this context, it is important to maintain adequate levels of subsidized funding, and therefore adequate reimbursement rates, for safety net providers under health care reform (*Division of Health Care Finance and Policy, 2012b; Ku et al., 2011; National Association of Public Hospitals and Health Systems, 2009*). Subsidies in MA primarily take the form of Medicaid, which means maintaining or increasing Federally Qualified Health Center (FQHC) and

Disproportionate Share Hospital payments, in particular, at both federal and state levels, and any additional state-sponsored insurance programs for low-income people (e.g., Commonwealth Care). While subsidized FQHC payment rates are planned to continue under the ACA, there are planned decreases for the Disproportionate Share Hospital payments, which could threaten the sustainability of safety net systems across the U.S. (*Ku, Jones, Shin, Byrne, et al., 2011*).

### Financing safety net providers

In MA, safety net providers differentially met financial struggles due to inadequate reimbursement rates for services to patients covered by Medicaid or any state-sponsored insurance plans, as well as for the uninsured (*Division of Health Care Finance and Policy, 2012b; Ku, Jones, Shin, Byrne, et al., 2011; National Association of Public Hospitals and Health Systems, 2009*).

#### • Community health centers

CHCs' insurance-related revenue increased at an average annual rate of 20% between 2005 and 2009, largely due to growth in the volume of Medicaid and Commonwealth Care patients; however, other factors contributing to revenue increases include more visits per patient, health care cost inflation, and planned Medicaid rate increases (*Ku, Jones, Shin, Byrne, et al., 2011*). Additionally, in the years following Chapter 58, funding from sources other than insurance grew 8.9% annually. Though CHC revenue grew during this period, costs also increased due to the need to meet staffing needs in a competitive market (*Ku, Jones, Shin, Byrne, et al., 2011*). On the whole, MA CHCs experienced relatively parallel increases in revenue and cost under Chapter 58.



• **Safety net hospitals**

As compared to CHCs, safety net hospitals faced more severe financial struggles where costs outpaced revenue (Ku et al., 2009; Ku, Jones, Shin, Byrne, et al., 2011; National Association of Public Hospitals and Health Systems, 2009).

While CHCs’ Medicaid payment rates are protected under federal law requiring cost-based reimbursement, states have more leeway in establishing Medicaid hospital payment rates (Ku, Jones, Shin, Byrne, et al., 2011). With the stagnating economy, numerous states, including MA, cut back on or froze Medicaid provider payment rates; thus, Medicaid payment rates were at risk of falling short of treatment costs, putting safety net hospitals in financial difficulty. The MA Hospital Association provided evidence for this, reporting that hospitals, on average, were only paid approximately 70% of costs in 2010 — an underpayment gap of approximately \$500 million. These cuts shifted the cost of caring for Medicaid and uninsured patients from the state to safety net health systems (National Association of Public Hospitals and Health Systems, 2009).

**F. MA’S HEALTH SAFETY NET FUND**

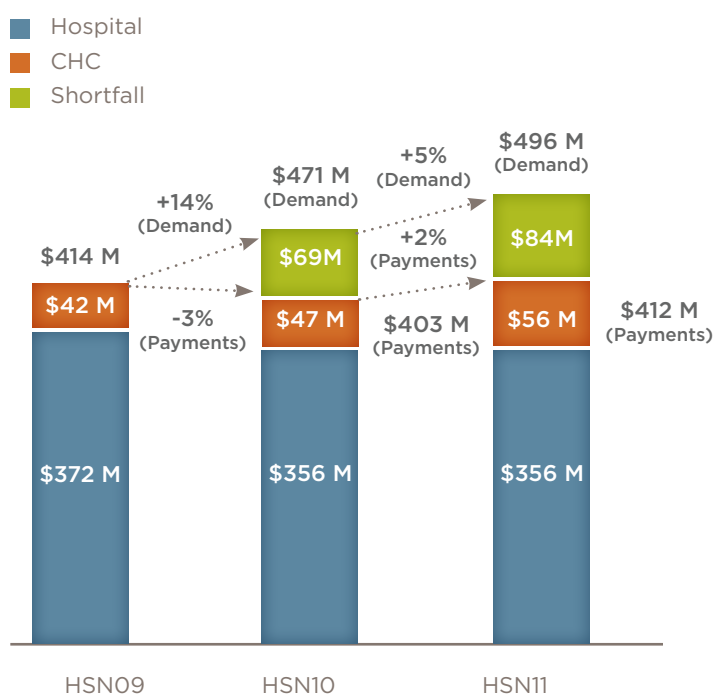
As previously mentioned, the Health Safety Net (HSN) fund compensates safety net providers for services they provide to the uninsured and underinsured. The MA experience shows that the HSN continues to serve three important functions:

1) Coverage for low-income residents for whom affordable coverage is not available because their employer does not offer it, because they do not meet citizenship requires for public insurance, or because they claim an exemption;

2) “Wrap-around” coverage for lower-income people with insurance whose coverage is not comprehensive and therefore face medical expenses they cannot afford; and

3) Temporary coverage for residents who become uninsured while transitioning from one type of coverage to another. This is especially important for those able to leave Medicaid for subsidized insurance because of the gap experienced during the transition. (Hall, 2010)

**FIGURE 17. HSN TOTAL DEMAND AND PAYMENT TRENDS**

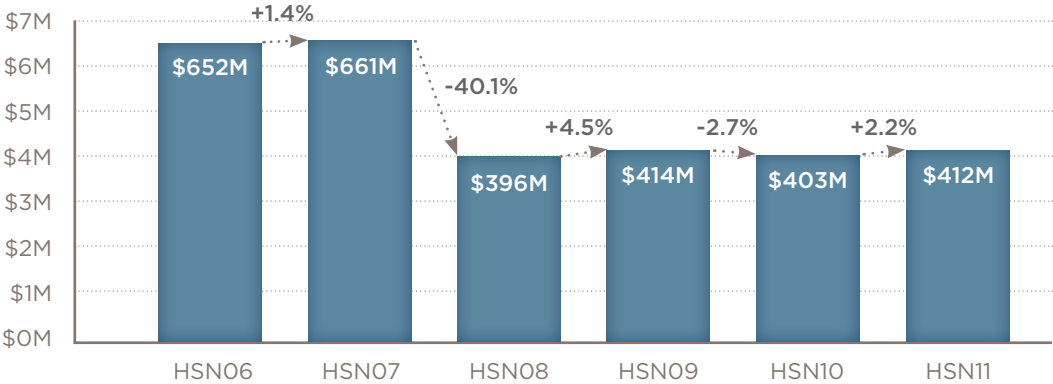


**Note:** The Health Safety Net fiscal year runs from October 1 through September 30 of the following year. Hospital and community health center payments are reported in the month in which payment was made. Shortfall amount is based on spending assumptions in place during HSN11 and may differ from year-end shortfall estimates reported elsewhere. Numbers are rounded to the nearest million and may not sum due to rounding; percent changes are calculated prior to rounding.

**Source:** MA DHCFP, 2012



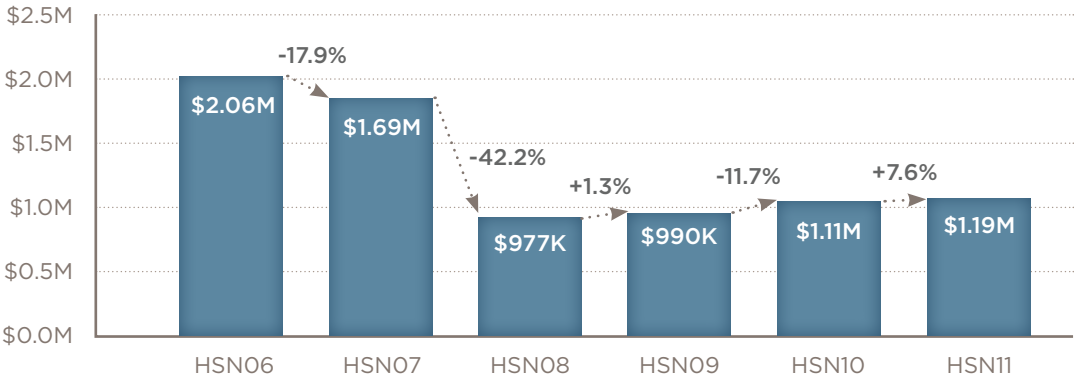
FIGURE 18. HSN TOTAL PAYMENT TRENDS



**Note:** Numbers are rounded to the nearest million. The DHCFP reports did not indicate if the figures had been adjusted for inflation.

**Source:** MA DHCFP, 2008 and 2012

FIGURE 19. HSN TOTAL SERVICE VOLUME TRENDS



**Note:** Numbers are rounded to the nearest thousand.

**Source:** MA DHCFP, 2008 and 2012





When Chapter 58 first passed, the cost of reforms was expected to be about \$1.2 billion in fiscal year (FY) 2007, \$1.3 billion in FY 2008, and \$1.6 billion in FY 2009. Predicted increases were primarily for Commonwealth Care subsidies and Medicaid provider rate increases, which were expected to gradually rise. Sources of funding to pay for reforms included federal safety net revenue and new federal Medicaid matching funds. Funding to providers from the UCP/HSN was expected to dwindle by almost half from \$610 million in 2007 to \$320 million by 2009 (*Ku et al., 2009*). Thus, while MA legislators accurately anticipated that the need for “free care” (or reimbursements for services provided to those uninsured and underinsured) would continue, and thus kept the UCP/HSN in existence, they funded it at lower levels.

Funding for the MA safety net pool fell 37% from 2006 to 2009, or 48% relative to medical cost inflation (*Hall, 2010*). However, funding decreases alone do not provide a complete picture of how Chapter 58 affected this state fund.

It is also important to examine changes in demand. Although data could not be located from prior years, the 2011 annual report of the HSN shows that demand for HSN funding increased by 14% from 2009 to 2010 and 5% in the following year. In 2010, demand for HSN funding exceeded actual payments by \$69 million and in 2011 by \$84 million (**Figure 17**). The shortfall between demand and payments is distributed among hospital providers, which means providers are taking a loss. (*Division of Health Care Finance and Policy, 2012b*)

Payments reflect reimbursements made to providers, but reimbursement requests could not always be met due to shortfalls in available funding. **Figure 18** depicts the sharp decrease in total payments (40% from 2007 to 2008) that occurred soon after implementation of Chapter 58; however, payments remained stable in the years that followed. In contrast, after an initial decrease in total service volume (or visits to providers) of 52% from 2006 until 2008, service volume increased each of the three subsequent years, rising by 22% from 2008 to 2011 (**Figure 19**). Notably, from 2010 to 2011, both service volume and payments for CHCs increased by 20%.

More information needs to be gathered to obtain a comprehensive and accurate picture of HSN payments, funding, and demand after Chapter 58. This will be explored through research for the qualitative report.

## G. CHALLENGES TO THE SAFETY NET'S CAPACITY

### Administrative, billing, and infrastructure challenges

Safety net providers and community-based programs have struggled post-Chapter 58 because many did not have adequate administrative infrastructure to handle health insurance expansion (*American Public Health Association, 2009; Raymond, 2011a*). Traditionally, these providers served the uninsured, so they lacked rigorous billing infrastructures, as well as the technology, staff, and other resources to engage in billing processes with numerous insurance plans (*American Public Health Association, 2009*). In addition, confusion about covered benefits and paperwork requirements for each health plan make it difficult for these providers to accurately bill for the services they provide.



## Provider shortages and barriers to care

While the literature is not entirely conclusive on the matter and more research is necessary, several sources do mention that an insufficient supply of physicians, particularly in primary care, has been associated with limitations in access to medical care despite health care reform (*Ku et al., 2009; Ku, Jones, Shin, Byrne, et al., 2011; Sack, 2008*). One study looking at MA's CHCs reported a pre-Chapter 58 shortage of qualified and available primary care providers as a challenge, with the shortage worsening after Chapter 58 was implemented (*Ku et al., 2009*). The 2012 Massachusetts Medical Society's (MMS) Physician Workforce Study found that the fields of internal medicine and family medicine have faced either a "critical" or "severe" shortage in the prior seven years (*Massachusetts Medical Society, 2012*).

Furthermore, MA continues to have one of the highest rates of residents living in primary care health professional shortage areas in New England, and one in five non-elderly adults reported challenges finding an available physician.

To address this, the Massachusetts League of Community Health Centers started a special workforce initiative to support loan repayment for primary care physicians who would be willing to practice in local community health centers (*Ku, Jones, Shin, Byrne, et al., 2011*).

### Possible recommendations to address provider shortages include:

- Promoting financial incentives to recruit and retain a robust and diverse primary care workforce, including primary care physicians, nurse practitioners, and physician assistants;
  - Supporting expanded roles for non-physician health professionals;
  - Monitoring the ratio of clinicians to enrollees; and
  - Establishing an ongoing primary care task force to monitor progress and prioritize opportunities to improve access to primary care. (*Boston Public Health Commission, 2008; Ku, Jones, Shin, Bruen, & Hayes, 2011*)
- Interestingly, despite reports by some of the declining availability of primary care and severe physician shortages, MA currently has the highest physician-to-population ratio of any state in both primary care and overall. The supply of physicians per capita has more than doubled since 1976 (*Goodman & Fisher, 2008; Massachusetts Medical Society, 2012; McDonough, 2011*).
- Other research disagrees with reports that there are provider shortages and claims that focusing too narrowly on the physician workforce is both misleading and could have detrimental effects on quality of care and health outcomes. Instead, these studies depict current delivery and payment systems as problematic and see insufficient evidence to prove that quality and access to care will increase through efforts to expand provider supply. They warn that high costs associated with increasing physician supply could limit the resources available for necessary reform efforts without gain. Instead, the following are recommended:
- Do not remove the Medicare cap on funding for graduate medical education;
  - Find the best way of reallocating current medical education funding toward programs (e.g., primary care residences) that could lead to improved care coordination and chronic-disease management; and
  - Accelerate efforts to reform payment systems so they foster integration, coordination, and efficient care. (*Goodman & Fisher, 2008*)



## VII. Impact of Chapter 58 on Public Health Programs

### A. OVERVIEW

There is very limited literature available about the impact of Chapter 58 on public health programs, both community-based and those run by government entities; therefore, this will be explored through research for the subsequent qualitative report.

As previously mentioned, multisectoral involvement in the planning and implementation of Chapter 58 led to the achievement of near-universal health insurance coverage and increased health services access for nearly all demographic groups. This has been a huge step forward in helping meet the health-related needs of vulnerable populations, which is an important aim of public health programs.

Nonetheless, unanticipated issues arose that adversely affected public health programs. For example, there was a widespread misperception that Chapter 58 had addressed all of the health needs of the uninsured and underinsured by expanding health insurance coverage (*American Public Health Association, 2009*). This misperception led to decreased funding and support for clinical public health programs such as substance abuse treatment, immunization clinics, and STI services. Also problematic was clients' lack of awareness of the continued availability of services for uninsured individuals via safety net providers and community health centers (*Dennis et al., 2012*). It should be noted, however, that some reports attribute cuts to public health programming to an overall lagging economy, and it is difficult to disentangle the effects of Chapter 58 versus the economy upon public health programs (*Center for Health Law and Economics, 2012*).

### B. ECONOMIC IMPACTS

According to a 2009 American Public Health Association paper, the difficult fiscal climate and related scrutiny by the MA Legislature led to cuts in MA public health programs. From fiscal year 2009 to 2010, funding for overall public health programming decreased by 14%.

**Programs that experienced disproportionate cuts were those that have important impacts on primary prevention including:**

- Youth violence prevention (-63%);
- Smoking prevention (-61%);
- Family health services (-39%);
- Early intervention services (-40%); and
- Health promotion and disease prevention (-50%). (*American Public Health Association, 2009*)

Furthermore, statutory language led to some post-Chapter 58 public health funding threats. Generally, public health programs are required by law to serve mostly uninsured individuals. Thus, public health programs lost funding as more previously uninsured individuals became insured but continued to use community-based public health programs (*American Public Health Association, 2009*).



### Case example: Family planning

After passage of Chapter 58, it became clear that family planning centers continued to serve critical functions (both traditional and new) in the health care reform context. Because federal law mandates CHCs to provide family planning, it was assumed that expanding health insurance coverage would diminish the need for dedicated family planning centers. MA legislators scrutinized family planning, believing its services were covered under health insurance expansion, and thus made cuts on this basis given concurrent fiscal pressures (from \$7.6 million in FY'09 to \$4.6 million in FY'10) (*American Public Health Association, 2009*). Yet, MA family planning programs reported that demand for services had not decreased; rather, programs found their functions expanding to assist more clients with enrolling in and understanding health insurance plans (*American Public Health Association, 2009; Gold, 2009*). Thus, CHCs alone could not provide adequate access to family planning services for low-income and disadvantaged communities (*American Public Health Association, 2009; Gold, 2009*).

For instance, two large family planning providers, Tapestry Health Systems and Health Quarters, reported that client numbers stayed level or increased between 2006 and 2009 (*Gold, 2009*). Even the non-profit community health provider, Health Care of Southeastern Massachusetts (now called Health Imperatives), which lost some family planning clients to nearby non-Title X CHCs, found that some clients eventually returned, either because they were more comfortable with staff they had known for years or to obtain specific services (e.g., CHCs may not provide as wide a range of contraceptive methods, particularly long-acting reversible contraceptives) (*Gold, 2009*).

Thus, though Chapter 58 brought health insurance coverage to more individuals, dedicated family planning centers remained a critical component of the health care provider network.

### MA family planning programs serve the following needs post-Chapter 58:

- 1) **Continuing to provide care to those who fall through the cracks** — those who remain uninsured, underinsured, and experience lapses in coverage. As of 2009, Commonwealth Care and Choice plans provided varying coverage for family planning and plans for young adults and self-employed individuals often do not cover these services (*American Public Health Association, 2009*).
- 2) **Providing confidential care and effective outreach to those who are at high risk or reluctant to go elsewhere** — including teens, young adults (who also experience intermittent coverage), and low-income and disadvantaged women (*American Public Health Association, 2009; Gold, 2009*).
- 3) **Functioning as an entry point or “health care portal” into the health care system** — Family planning centers often service a population not yet connected to the health care system. Family planning sites have spent considerably more time helping clients apply for, enroll in, and maintain insurance coverage, as well as understand benefits. This has resulted in extending appointment times, clinic hours, hiring additional staff, and creating walk-in clinics. Some receive compensation for this service. Centers can facilitate access to a broader range of care by developing referral arrangements with other providers in the community. (*American Public Health Association, 2009; Gold, 2009*)



- 4) **Mitigating barriers to family planning services, especially contraceptives** — Since the implementation of Chapter 58, some newly insured individuals discovered they now have to pay high out-of-pocket costs for services they once received for free or at low cost, and, as a result, some chose to forgo care. Contraceptive pills at a pharmacy range from \$20 to \$60, while the maximum cost at a family planning clinic is \$20. Costs are most troublesome for women near 300% FPL (at the top of eligibility for Commonwealth Care plans). Newly insured individuals must now take prescriptions to a pharmacy to fill and may only refill one month at a time (without access to low-cost bulk supplies), which is especially problematic for clients in rural areas. These barriers can affect an individual's ability to adhere to their chosen method of contraception.



## VIII. Lessons Learned & Recommendations

Lessons learned from the Massachusetts experience with Chapter 58 can be useful to states as they implement the ACA.

### A. SUCCESSFUL STRATEGIES USED BY MASSACHUSETTS TO ENROLL UNINSURED INDIVIDUALS AND INCREASE ACCESS TO CARE

MA employed a number of successful strategies to increase access to health care by educating and enrolling uninsured individuals into insurance plans for which they were newly eligible.

#### Utilizing existing data to identify enrollees

When MA started Commonwealth Care in Fall 2006, individuals who previously had been eligible to receive uncompensated care at hospitals and community health centers were automatically enrolled (*Raymond, 2011b*).

#### Streamlining enrollment

MA streamlined parts of the health insurance enrollment process by developing an integrated eligibility system that served all public coverage programs except for the Medical Security Program (*Dorn, Hill, & Hogan, 2009*). This approach reduced redundancy and administrative costs by instituting a single application form and automated procedures to determine eligibility for various health insurance programs. For example, the enrollment system reviews existing data from the Uncompensated Care Pool and automatically enrolls those who are eligible in Commonwealth Care.

#### Outreach and navigation

Health care providers and community-based health organizations played a vital role in enrollment outreach (*American Public Health Association, 2009; Cortés, 2010; Dennis et al., 2012; Dorn et al., 2009; Raymond, 2011a; Stoll, 2012*). The MA Department of Public Health provided training for staff in existing grant-funded, community-based programs to learn how to assist uninsured individuals in obtaining health insurance coverage. Additionally, state and foundation funding established dedicated phone lines where counselors could answer enrollment and coverage questions and help identify insurance programs for which individuals could be eligible (*Raymond, 2011b*).

#### Public education

An intensive and comprehensive public education campaign was instrumental in informing individuals and businesses of the new responsibilities and benefits afforded by Chapter 58 (*Dorn et al., 2009; Raymond, 2011a*). The state partnered with both public and private organizations, such as the Boston Red Sox, community-based organizations, banks, pharmacies, and news outlets, to develop television, radio, and print advertisements, outreach initiatives, news coverage, and mailings sent to taxpayers and employers across the state (*Dorn et al., 2009; Patel & McDonough, 2010*). Engaging trusted local sources and allocating resources for enrollment assistance led to a quick uptick in enrollment of eligible individuals and families shortly after implementation of Chapter 58.



## Creating the Health Safety Net

Chapter 58 created the Health Safety Net Trust Fund (HSN) to replace MA's Uncompensated Care Pool in anticipation of the continued need for "free care" or coverage for the uninsured or underinsured. The HSN utilized funding from private and public sector revenue sources to maintain the mechanism to pay acute care hospitals and community health centers for health services for individuals who did not qualify for publicly funded coverage, are temporarily uninsured while waiting to qualify for coverage, or are unable to pay medical bills despite being insured (*Raymond, 2011b*).

### B. THE REMAINING UNINSURED/ UNDERINSURED AND BARRIERS TO ACCESSING CARE

Despite enormous successes in enrolling uninsured individuals, a small percentage of individuals remain uninsured or underinsured. The uninsured group is comprised of individuals in one or more of the following categories: low-income; geographically isolated; racial/ethnic minorities; poor health status; lower educational level; non-citizens; non-English speakers; males; young adults; Hispanic; and/or unemployed or under-employed (*American Public Health Association, 2009; Biby, 2011; Long, Yemane, & Stockley, 2010*). The underinsured tend to be low-income, young, Hispanic, in poor health, and/or living outside of the greater Boston area (*Long, 2008*).

**Barriers to accessing care include the following factors:**

#### Navigation

Despite efforts to streamline the enrollment process, some individuals continue to have difficulty accessing care because they have trouble navigating the health

insurance enrollment system. Some newly insured residents were confused about eligibility requirements, health benefits, and when and where to seek care (*American Public Health Association, 2009; Dennis et al., 2012*). Researchers and staff of community-based public health programs have reported that the enrollment process is still perceived as burdensome, requiring multiple encounters with staff to complete applications. The reenrollment process is challenging as it is not automatic, is time-intensive, and is paperwork-heavy (*Dorn et al., 2009; Raymond, 2011a*). In addition, the Health Connector website can be confusing and difficult to navigate (*American Public Health Association, 2009*). Website users have reported difficulties determining the benefits available under each health insurance plan (*Dennis et al., 2012*).

#### Gaps in coverage

Some individuals experienced gaps in health insurance coverage due to the complexity of the health insurance system, thus limiting access to health care services. For example, varying eligibility criteria and program rules among different types of insurance, such as differing policies on coverage start and stop dates, led to gaps in coverage when people transitioned between programs (*Dorn et al., 2009; Graves & Swartz, 2012; Henry J. Kaiser Family Foundation, 2009*). Other issues include a lack of awareness that an individual must reenroll or renew benefits annually, confusion over program procedures, and lack of awareness of program options (*American Public Health Association, 2009; Henry J. Kaiser Family Foundation, 2009*). Some people have difficulty maintaining coverage through life changes either because they are unaware of the resulting change in eligibility for subsidized programs or because the system is too complex for them to navigate (*American Public Health Association, 2009; Dennis et al., 2012*).



## Provider shortages

Some individuals who successfully obtain health insurance still have trouble accessing care due to health care provider shortages. Both insured and uninsured individuals experience long waits for appointments and have a difficult time finding providers who are accepting new patients (*American Public Health Association, 2009; Dennis et al., 2012; Long et al., 2010; The Kaiser Family Foundation, 2012*). Insured individuals, particularly those with state subsidized coverage, may have trouble finding a provider because many providers only accept particular types of insurance (*Dennis et al., 2012; Long et al., 2010*). MA has attempted to address the provider shortage by creating primary care physician recruitment programs, expanding medical school enrollment for students committed to entering primary care, and creating a public-private program to repay loans for providers working at community health centers (*Long, 2010*).

## Cost

Health care costs, including premiums, co-pays, and deductibles remain a major barrier to care for many people, even those with health insurance (*American Public Health Association, 2009; Cortés, 2010; Henry J. Kaiser Family Foundation, 2009, 2012; Long et al., 2011, 2010; Raymond, 2011a*). State subsidized insurance excludes low-income workers with access to employer-sponsored coverage and moderate-income individuals without access to employer-sponsored coverage, leaving them with coverage options that are often unaffordable (*Henry J. Kaiser Family Foundation, 2009*).

## Other

Dennis, et al., identified several other factors as barriers to accessing care (*Dennis et al., 2012*). Some pharmacists are unaware of which prescriptions are covered by the new subsidized health insurance plans. Immigration status, language barriers, and fear of deportation can prevent immigrants from obtaining health insurance and accessing care. Finally, young adults lack confidentiality when using their parents' health insurance, which can prevent them from accessing services they wish to remain private.

## C. CLINICAL HEALTH AND PUBLIC HEALTH SERVICES

The following lessons learned and recommendations are both gleaned from the existing literature as well as from the authors' analyses.

### Access does not equal care

Health insurance coverage does not necessarily enable individuals to obtain care due to the finite capacity of medical providers to meet the needs of eligible patients, requirement of co-pays, and lack of knowledge among consumers regarding available benefits and how to use them (*Etkind, n.d.*).

### Bridging clinical providers with the public health workforce:

Clinical providers lack training in specialized public health functions. The traditional clinical realm cannot absorb functions that have been historically the responsibility of the public health enterprise, including outreach, follow-up, contact notification, and outbreak management. Health care reform provides an important platform for bridging the two fields in order to coordinate the efforts and opportunities that arise with Chapter 58 to promote population health. (*Auerbach, 2013; Etkind, n.d.*)





### Care navigation and coordination are vital services

This is particularly true for vulnerable and high-risk populations; yet, even with health care reform, these services are not covered by insurance. It is crucial to realistically anticipate cost shifting and to plan for effects of the transition to a reimbursement-driven system. For residents acquiring new health insurance benefits, time must be allocated for the eligibility and enrollment processes. Consideration must be given to extending grant funding for health services (e.g., Ryan White) until new benefits are established, as well as to funding mechanisms for service components that are not reimbursable. (Fukuda, 2010)

### Financial barriers to obtaining medications must be addressed

Mechanisms are needed to preserve full-pay coverage for pharmacy needs during the application process and during re-certification gaps, as it is a strategy to provide coverage for prohibitively expensive medication co-pays. It is equally important to assess and address the medication needs of individuals living with HIV who are ineligible for Medicaid. (Fukuda, 2010)

### Build connections with the state Medicaid program up front

To do so, public health professionals can identify allies and make connections, review the Medicaid application, and learn about plan types and the scope of coverage. Public health staff can use these tools to train providers and consumers about Medicaid eligibility, enrollment processes, recertification requirements, and co-pay obligations. (Fukuda, 2010)

### Education of providers and consumers is critical

Public health practitioners can develop educational materials for consumers and providers; engage consumer advisory boards; identify those with expertise to provide benefit navigation for consumers, particularly those with current chronic and infectious diseases; ensure readiness of clinical and non-clinical health care providers; and develop a plan to meet the needs of individuals who will remain ineligible for coverage post-Chapter 58. (Fukuda, 2010)

### D. ROLE OF PUBLIC HEALTH LEADERSHIP IN HEALTH CARE REFORM

This area will be comprehensively explored during the qualitative research phase. However, the following two lessons learned emerged from the literature:

#### Getting a seat at the table

One notable lesson for the public health enterprise in MA, including LHDs, was the need to proactively carve out a role for itself in the health care reform context and assert the continuing need for population-based prevention and other crucial functions. John Auerbach, the Commissioner of Public Health for Massachusetts during the implementation of Chapter 58, recalls a lesson that can be applicable to any state and local public health body: “We learned the hard way that if we didn’t fight for a seat at the table and struggle to demonstrate our value, others who were here would make decisions that affected us.” (Auerbach, 2006).



## Collaboration and buy-in

Early collaboration among multiple stakeholders — including community coalitions, business groups, health insurance carriers, government agencies, and provider associations — facilitated the Chapter 58 implementation process (*Raymond, 2011a, 2012*). Cross-sector stakeholders continue to remain involved in the implementation process by providing feedback, monitoring the impact of health care reform, reporting results, and making changes, as needed. In addition, key partners are part of the regulatory process through representation on the governing board of the state health insurance exchange.

## E. SUMMARY OF LESSONS LEARNED

### General

- Build cross-sector partnerships early in health care reform efforts and maintain an ongoing advisory body.
- Ensure that the voice of public health is included from the onset in planning, implementation, and monitoring.
- Public health leaders must learn to speak the language of the insurance world.

### Implementation

- Streamline the benefit enrollment process
- Create a user-friendly enrollment infrastructure

### Access to care

- Even with expanded health insurance coverage, there continues to be both need and demand for safety net services.

- Clinical provider workforce shortages must be monitored and measures ready to prevent and address them if they arise. Community health workers should be trained and deployed to supplement the health care workforce.
- Access to care does not ensure delivery of clinical preventive services. There is still much room for improvement in the management of chronic diseases, e.g., diabetes care.

### Clinical public health services

- Identify and implement clinical and community prevention opportunities.
- Rethink and reprioritize traditional public health functions, such as STD and TB clinics.
- A geographically specific plan for increasing access to primary care providers needs to be carefully developed.

### Public health services

- Define and maintain the public health services that cannot be shifted to the clinical service realm, such as outreach, contact follow-up, education and training of providers and the general public, and outbreak surveillance.

### Data monitoring and tracking

- Identify important process and outcome data points and create systems to collect and track this data.
- Work towards obtaining and accessing real-time data.
- Create a process for monitoring data trends and adjusting strategies as needed.



## Health insurance exchanges

Some keys to success were identified in the analysis of the MA insurance exchange:

- A successful exchange requires achieving a balance between consumer choice and protections and making the exchange attractive to insurance carriers (*Corlette et al., 2011*).
- Exchanges require authority and flexibility in order to identify and respond to consumers' needs (*Corlette et al., 2011*).
- Insurance carriers should participate in the design of the state's insurance exchange whenever possible in order to facilitate implementation (*Urff, 2011a*).
- Standardization of health plans and use of the insurance exchange website can boost market performance for smaller insurance carriers by allowing consumers to compare similar insurance products based on cost (*Urff, 2011b*).
- The health insurance exchange website should focus on providing consumers with clear information about health insurance plans to facilitate informed purchasing decisions (*Urff, 2011b*).
- Effective strategies for developing a risk (adverse selection) mitigation program include collecting robust claims and enrollment data, conducting comprehensive analyses and developing methodologies before involving stakeholders, testing methodologies prior to implementation, and conducting ongoing evaluation (*Holland & Woolman, 2011*).
- Aggregate risk sharing reduces the likelihood that insurance carriers will charge higher premiums to account for uncertainty (*Holland & Woolman, 2011*).
- Coordination with Medicaid benefits the health insurance exchange (*Holland & Woolman, 2011*).



## IX. Identified Gaps in the Literature

### LONG-TERM EFFECTS ON HEALTH OUTCOMES AND UTILIZATION

While more immediate changes in health care access behaviors can be monitored, it is difficult to assess whether there are attendant improvements in population health. A major limitation in terms of evaluating the impact and outcomes of Chapter 58 is time. As many risk factors accumulate and medical conditions develop over decades, it is too soon to detect many health outcomes. Individual understanding of new benefits and resultant behavioral changes in terms of care-seeking require time to progress, as well. Furthermore, outcome data are often two or more years behind the current state due to the time it takes to gather, analyze, and report the data to the public.

Equally as challenging is the fact that there are numerous variables that affect health, such as the social determinants of health; thus, these additional variables confound the relationship between expanding insurance access and health services utilization, and impacting health outcomes. It may be that health insurance may be necessary but not sufficient if one hopes to see statistically significant changes in health outcomes in some areas.

However, with sufficient attention and research, it may be possible to detect improved health care outcomes as was seen with the focused research on the reduction in tobacco use resulting from smoking cessation coverage. This striking relationship was only detected because it was the one area where there was serious research on Medicaid claims data; the relationship might not have been detected as immediately using other data sources.

### DATA IS STILL NEEDED TO ASSESS THE FOLLOWING VARIABLES:

- Re-hospitalization rates;
- Emergency visits for asthma exacerbations and other urgent care sensitive conditions;
- Health care quality; and
- Health care costs.

### PROVIDER SUPPLY AND PRACTICE PATTERNS

Data is lacking on whether provider volume, availability, or practice parameters have limited access to care in the post-Chapter 58 era. It is not clear whether physicians have fled or how workforce and practice-related issues may be impacting utilization and outcomes post-Chapter 58.

### ASSESSMENT AND TRACKING

Assessment of the extent of absorption of public health functions in clinical settings is poorly documented. Also, vital and effective services, such as care coordination and navigation often provided by non-clinicians, have not been taken into account, and are not tracked or reimbursable. Research on the impact and efficacy of various non-clinical providers to perform prevention, outreach, and care coordination functions (e.g., CHWs and patient navigators), as well as processes to provide certification of these providers, are currently underway.



### LOCAL HEALTH DEPARTMENTS

The impact of Chapter 58 on MA's local health departments has not been documented, including potential regulatory and/or legislative changes resulting from health care reform. Additionally, more information is needed to understand how the structure of public health agencies changed.

### STRUCTURE AND FUNDING OF THE SAFETY NET

More information is needed about finance and funding changes for safety net services (e.g., more information is needed to understand what happened to local and state funding for clinical services or preventive health programs related to STDs, HIV, TB, reproductive health, etc.), as well as the HSN. Also, more information is needed on any regulatory and/or legislative changes resulting from Chapter 58.

## X. Next Steps

Gaps identified herein will be explored through further qualitative research, primarily consisting of stakeholder interviews. Lessons learned will be probed and expanded upon. Based on the combined findings of this literature review, the remaining quantitative research, and the pending qualitative research, a case study of the lessons learned from MA's health reform experience through Chapter 58 will be developed and disseminated.



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## XII. Appendix: Literature Review Search Terms

### **DATABASE SEARCH TERMS FOR PUBLISHED LITERATURE (INDIVIDUALLY OR IN COMBINATION):**

1. Massachusetts health reform
2. Massachusetts health reform, overview
3. Massachusetts health reform, access
4. Massachusetts health reform, coverage
5. Massachusetts health reform, affordability
6. Massachusetts health reform, Affordable care act, similarities
7. Massachusetts health reform, Affordable care act, differences
8. Massachusetts health reform, affordable care act, overlaps
9. Massachusetts health reform, lessons
10. Massachusetts health reform, lessons learned
11. Affordable care act, overview
12. Affordable care act, access
13. Affordable care act, coverage
14. Massachusetts health reform, mortality rate
15. Massachusetts health reform, amenable mortality
16. Massachusetts health reform, cost-containment
17. Massachusetts health reform, chapter 224
18. Massachusetts health reform, BRFSS
19. Massachusetts health reform, mammography
20. Massachusetts health reform, colonoscopy
21. Massachusetts health reform, prostate
22. Massachusetts health reform, HIV test
23. Massachusetts health reform, cervical cancer
24. Massachusetts health reform, asthma
25. Massachusetts health reform, diabetes
26. Massachusetts health reform, cholesterol screening
27. Massachusetts health reform, cholesterol check
28. Massachusetts health reform, physical health
29. Massachusetts health reform, mental health
30. Massachusetts health reform, emergency, utilization
31. Massachusetts health reform, flu vaccine
32. Massachusetts health reform, shingles
33. Massachusetts health reform, herpes zoster
34. Massachusetts health reform, immunizations
35. Massachusetts health reform, preventive visit
36. Massachusetts health reform, tobacco usage
37. Massachusetts health reform, tobacco
38. Massachusetts health reform, hospital readmission
39. Massachusetts health reform, re-hospitalization
40. Massachusetts health reform, syphilis
41. Massachusetts health reform, gonorrhea
42. Massachusetts health reform, chlamydia
43. Massachusetts health reform, HIV
44. Massachusetts health reform, sexually transmitted infections
45. Massachusetts health reform, sexually transmitted diseases
46. Massachusetts health reform, tuberculosis
47. Massachusetts health reform survey and each health issue listed above
48. Massachusetts health reform, safety net
49. Massachusetts health reform, safety net service providers
50. Massachusetts health reform, community health centers
51. Massachusetts health reform, local health departments
52. Health reform, impact, community health centers
53. Health reform, impact, local health departments
54. Health reform, challenges, CHCs
55. Health reform, challenges, LHDs
56. Massachusetts health reform, PCP, shortages
57. Massachusetts health reform, primary care physicians
58. Massachusetts health reform, primary care providers
59. Massachusetts health reform, public health systems
60. Massachusetts health reform, health systems
61. Massachusetts health reform, outcomes
62. Massachusetts health reform, chapter 58



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