Sharon K. Long
Karen Stockley
Kate Willrich Nordahl

# Coverage, Access, and Affordability under Health Reform: Learning from the Massachusetts Model

*While the impacts of the Affordable Care Act will vary across the states given their different circumstances, Massachusetts' 2006 reform initiative, the template for national reform, provides a preview of the potential gains in insurance coverage, access to and use of care, and health care affordability for the rest of the nation. Under reform, uninsurance in Massachusetts dropped by more than 50%, due, in part, to an increase in employer-sponsored coverage. Gains in health care access and affordability were widespread, including a 28% decline in unmet need for doctor care and a 38% decline in high out-of-pocket costs.*

In April 2006, Massachusetts passed a comprehensive health reform bill, An Act Providing Access To Affordable, Quality, Accountable Health Care (Chapter 58 of the Acts of 2006), that sought to move the state to near universal coverage. That legislation provided the template for the 2010 federal Affordable Care Act (ACA). Massachusetts' reform initiative, like the ACA, includes, among other changes: an expansion of publicly subsidized coverage for low- and moderate-income people; the creation of health insurance exchanges for individuals and small businesses; insurance market reforms; a mandate that individuals obtain insurance coverage if affordable coverage is available; and a requirement that employers contribute toward health insurance premiums for their workers or face a penalty.[1] Given the parallels with the Massachusetts legislation, the experience under reform in Massachusetts provides a preview of the potential implications of the ACA for the rest of the nation. While the impacts of the ACA will vary across the states given the complexity of their health care systems and policies in place prior to reform and the differences in their choices under the new law, the findings for Massachusetts are a confirmation that major gains in coverage and health care access are possible.

To provide an assessment of the potential trajectory of the nation under the ACA based on the Massachusetts example, this paper summarizes the evidence of the impacts of Massachusetts' health reform effort on insurance coverage, access to and use of care, and health care affordability for individuals since 2006. Our primary focus is on the findings based on the Massachusetts Health Reform Survey (MHRS), a comprehensive survey of nonelderly adults in Massachusetts that has provided the core assessment of the state's reform effort to date (see, most recently, Long,

***Sharon K. Long, Ph.D.,** is a senior fellow at the Urban Institute. **Karen Stockley, B.A.,** is a doctoral student in the Department of Economics, Harvard University. **Kate Willrich Nordahl, M.S.,** is director of the Massachusetts Medicaid Policy Institute, Blue Cross Blue Shield of Massachusetts Foundation.* *Stockley acknowledges support from the National Science Foundation Graduate Research Fellowship under grant no. DGE-1144152.* *Address correspondence to Dr. Long at the Urban Institute, 2100 M St. N.W., Washington DC 20037. Email: SLong@urban.org*

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Stockley, and Dahlen 2012a,b). We supplement that overview with findings from studies that have used other data sources and methods as a check on the MHRS results, with a focus on studies that rely on stronger evaluation designs than the pre/post model that is possible with the MHRS. We end with a summary of some of the key challenges that Massachusetts has faced under health reform, the state's strategies in addressing those challenges, and the prognosis for the ACA based on the Massachusetts case study.

## Comparison of Massachusetts Reform and the ACA

As noted previously, there are many similarities between Massachusetts' health reform and the ACA. Both include a requirement for individuals to obtain health insurance if affordable insurance is available to them, although the ACA requires this of all people while the Massachusetts law only requires it of adults. Both require employers above a certain size to offer coverage to their employees or face penalties, although the specifics of the requirements and penalties vary. Both expand Medicaid coverage and subsidize coverage for low-income populations to help make insurance more affordable, although the specifics here vary as well. Insurance market reforms, including guaranteed issue and modified community rating, which had been implemented previously in Massachusetts in the mid-1990s, are also critical to the ACA.

While there are broad similarities in the structure of health reform in Massachusetts and the ACA, few—if any—states, including Massachusetts, are implementing the ACA under political and economic conditions as favorable as those facing Massachusetts in 2006. First, Massachusetts' reform effort built on many years of incremental reform that laid the foundation for the 2006 push for near universal coverage (McDonough et al. 2006). Of particular importance, the state had previously implemented insurance market reforms and had expanded Medicaid coverage under an earlier Section 1115 Medicaid waiver. That waiver provided $385 million in federal funds that could be used to support the 2006 expansion of coverage to the previously uninsured. Second, support for health reform was strong in the state, with the 2006 legislation the product of bipartisan compromise under a Republican governor (Mitt Romney) and Democratic majority legislature. Commitment to reform was also strong in the state across public and private stakeholders who supported the concept of "shared responsibility" by consumers, government, and business for insurance coverage. In 2006, 69% of nonelderly adults in Massachusetts supported the state's reform effort (Long, Stockley, and Dahlen 2012a), and in 2008, only 33% of employers disagreed with the statement that health reform had been "good for Massachusetts" (Gabel et al. 2008). Further, business leaders from across the state, including the Associated Industries of Massachusetts, the Greater Boston Chamber of Commerce, the Massachusetts Business Roundtable, and the Massachusetts Taxpayer Foundation, report that health reform has been good for business in Massachusetts (Raymond 2012). As a result, Massachusetts was able to move quickly to implement reform, expand coverage, and create the new health insurance exchange over a very short period of time (Dorn, Hill, and Hogan 2009). Thus, the gains from reform could be seen quickly in the state, which served to reinforce stakeholder support.

By contrast, the rhetoric around the ACA has been intensely partisan, with strong opposition continuing after passage of the legislation. The share of the nation's adults reporting a favorable opinion of the ACA has ranged from 34% to 50% since the law's passage (Kaiser Family Foundation 2012), and within months of enactment, numerous lawsuits were filed challenging the constitutionality of key provisions. Eventually, the Supreme Court's June 28, 2012, decision upheld the key provision of the law—its individual mandate—but effectively modified the law's Medicaid expansion to give states the option to expand Medicaid coverage (SCOTUS 2012). These political issues, combined with the lengthier timeline for implementation of many of the ACA's key elements, mean that the process of implementing national reform is moving much more slowly and with more acrimony than did reform in Massachusetts.

In addition to political differences, there are also strong economic differences between Massachusetts in 2006 and the nation today. Most notably, the country entered a severe economic recession in 2007 that, combined with the collapse of the housing market, has created long-lasting economic challenges. Although the recession officially ended in June 2009, the national unemployment rate stood at nearly 10% in March 2010 when the ACA was passed,[2] with uninsurance at 16.3% in that year.[3] By contrast, as health reform in Massachusetts began in 2006, the unemployment rate in Massachusetts was at 4.8%,[4] and uninsurance was at 10.4%.[5] Thus, while we would expect the experiences under health reform in Massachusetts to be broadly applicable to the rest of the country, we would also expect variation across the states, reflecting their different starting points and their different political and economic environments.

## Data and Methods

### *The Massachusetts Health Reform Survey*

The MHRS collects information on insurance coverage, access to and use of health care, and health care costs and affordability from working-age adults ages 19 to 64 in Massachusetts.[6] The survey was first conducted in fall 2006, just before the implementation of many of the key elements of reform in the state,[7] with additional rounds of the survey conducted each fall from 2007 to 2010. In survey years 2006 to 2009, the MHRS was based on stratified random samples of households with a land-line telephone. In 2010, a random sample of cell phones was added to the survey to supplement the land-line telephone sample given the rapid increase in the share of adults in cell phone-only households (Blumberg and Luke 2011).

The MHRS obtains information from a new cross-sectional sample of approximately 3,000 adults each year, with oversamples of uninsured adults and lower-income adults. The overall response rate for the survey in 2010 was 39%, which combines the response rates for the land-line telephone sample (42%) and the cell phone sample (31%). While response rates for cell phone samples are generally lower than those for land-line samples, adding the cell phone sample captures a part of the population (the more than 25% of adults in cell phone-only households) that is missed completely in surveys that focus only on the population with a land-line telephone. As a result, the combined land-line and cell phone samples provide survey data that are more representative of the population than a land-line sample alone. The response rate for earlier years of the survey, which relied on land-line samples only, ranged from 43% to 49%.[8] All tabulations based on the survey data were prepared using weights that adjust for the complex design of the survey and for undercoverage and survey nonresponse.

Like all survey-based research, the MHRS relies on self-reported information. The quality of the data depends on the survey respondent's ability to understand the questions and the response categories, to remember the relevant information, and to report the information accurately. We would not expect there to have been changes in recall and reporting accuracy over the time period of the survey.

### *Changes over Time under Health Reform*

We compare the outcomes for cross-sectional samples of adults in periods following the implementation of health reform to the outcomes for a similar cross-sectional sample of adults just prior to the implementation of health reform (2006) using a pre/post framework. Any differences between the baseline time period (2006) and the follow-up time periods will reflect the impacts of Chapter 58 as well as other factors, beyond health reform, that changed during the time period. Thus, we cannot attribute trends over time since 2006 solely to the effects of health reform. Given this limitation, we draw on the findings from studies using evaluation methods that offer the potential for controlling for such confounding factors as a check on the findings from the MHRS.

In this analysis, we estimate the following regression model:

$$Y_i = \alpha + \beta_{1j} X_{ij} + \beta_{2k} REGION_{ik} + \beta_3 \ Y2007_i + \beta_4 \ Y2008_i + \beta_5 \ Y2009_i + \beta_6 \ Y2010_i + \varepsilon_i, \quad (1)$$

where $Y_i$ is the outcome of interest for individual $i$ (e.g., insurance status, health care use); $X_{ij}$ is a series of variables to capture the characteristics of the individual and his or her family (including age, sex, race/ethnicity, citizenship, marital status, educational attainment, employment, firm size, self-reported health status, disability status, whether the individual had a chronic condition or was pregnant, and family income);[9] and $REGION_{ik}$ is a series of dummy variables to capture the region of the state in which the individual lived.[10] We also include a series of dummy variables for each year 2007 to 2010, with 2006, the pre-reform year, omitted from the model. We test for differences in the outcomes for each year relative to 2006, reporting here on any differences in 2008 relative to 2006 ($\beta_4$) as the measure of the early impacts of health reform, and any differences in 2010 relative to 2006 ($\beta_6$) as the more long-term impacts that also capture the impacts of the recession and other changes beyond health reform. For ease of comparison across models, we estimate linear probability models. All of the analyses were weighted and control for the complex design of the sample using the survey estimation procedures (svy) in Stata 11 (StataCorp 2009).

In presenting the findings, we report outcomes for adults in the state as of 2010 and estimates of how those adults would have fared in Massachusetts in earlier years. To calculate the latter, we use the parameter estimates from the regression models to predict the outcomes that the adults in the 2010 sample would have had if they had been observed in each of the preceding study years. Estimates of differences across years for the 2010 sample were obtained using the margins command in Stata.

We provide estimates for the overall population of nonelderly adults in the state and for lower-income adults with family incomes less than 300% of the federal poverty level (FPL)—the target population for many of the reforms under Chapter 58. In Massachusetts, most adults below 150% of FPL were eligible for MassHealth (the Medicaid program in Massachusetts) or, if they did not have access to coverage through an employer, fully subsidized coverage under the new Commonwealth Care program. Partial subsidies under Commonwealth Care continued for adults with incomes up to 300% of FPL. This compares to the ACA expansion of Medicaid to nearly all adults with incomes up to 138% of FPL and subsidies for private coverage up to 400% of FPL.[11]

In summarizing the findings, we report on a core set of outcome measures; a more comprehensive set of outcomes is available in the full evaluation report (Long, Stockley, and Dahlen 2012b) and in an earlier paper (Long, Stockley, and Dahlen 2012a).

## Summary of Impacts of Health Reform in Massachusetts

### *Insurance Coverage*

Health insurance coverage expanded significantly in Massachusetts under health reform, increasing from 86.6% of nonelderly adults in 2006 to 94.2% in 2010 based on the MHRS (Table 1). The gains in coverage were particularly strong for lower-income adults, with the share that was insured increasing from 75.9% to 90.1% between 2006 and 2010. The increase in insurance coverage in Massachusetts over this period is in sharp contrast to the trend in the nation as a whole, where the share of nonelderly adults who were insured fell from 80.2% to 78.7% between 2006 and 2010 (Cohen, Ward, and Schiller 2011).[12]

The gains in insurance coverage under reform in the state reflect growth in both employer-sponsored insurance (ESI) coverage and public or other coverage. ESI coverage in Massachusetts was nearly four percentage points higher in 2010 than it was prior to health reform for all nonelderly adults (68.0% versus 64.4%) and more than six percentage points higher for lower-income adults (41.9% versus 35.8%). There is no evidence that public coverage has “crowded out” ESI coverage under health reform in the state. Under reform, employers are more likely to offer health insurance coverage to their workers, with the share of employers offering coverage up from 70% in 2005 to 77% in 2010 (Massachusetts Division of Health Care Finance and Policy 2011). Nationally, 69% of employers offered coverage in 2010. Gabel

**Table 1. Changes in health insurance coverage for all adults and lower-income adults 19 to 64 in Massachusetts, 2006 to 2010**

| | All adults (%) | | | Lower-income adults (%) | | |
|---|---|---|---|---|---|---|
| | 2006 | 2008 | 2010 | 2006 | 2008 | 2010 |
| Had insurance coverage at the time of the survey | 86.6 | 95.1** | 94.2** | 75.9 | 91.9** | 90.1** |
| Employer-sponsored coverage | 64.4 | 69.3** | 68.0** | 35.8 | 43.5** | 41.9** |
| Public or other coverage | 22.2 | 25.8** | 26.2** | 40.1 | 48.4** | 48.2** |
| Had insurance coverage for all of the past year | 80.5 | 88.4** | 87.9** | 64.3 | 81.0** | 79.8** |

Source: 2006–2010 Massachusetts Health Reform Surveys (all adults $N$=15,544; lower-income adults $N$=7,769).
*Notes:* Lower-income is defined as less than 300% of the federal poverty level (FPL). The table's regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, health status, disability status, whether the individual has chronic conditions or is pregnant, family income, and region-level fixed effects. Regression-adjusted estimates are predicted values calculated using the parameter estimates from the regression models to predict the outcomes that the individuals in the 2010 sample would have had if they had been observed in each of the preceding study years.
* (**) Significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.

and colleagues (2008) have speculated that one factor in increasing employer offer rates in the state may be the individual mandate, which increased the demand for insurance coverage by workers. Under reform, employers may need to offer insurance coverage to their workers to remain competitive.

These pre/post findings on insurance coverage from the MHRS are supported by other studies using national survey data and stronger quasi-experimental designs.[13] For example, using data for 2004 to 2007 from the Current Population Survey (CPS), Long, Stockley, and Yemane (2009) estimated difference-in-differences models, comparing trends in insurance coverage in Massachusetts to trends in other similar states. They found that insurance coverage increased by 6.6 percentage points among nonelderly adults in the first year of reform, with ESI coverage increasing by 3.1 percentage points, and public and other coverage increasing by 3.5 percentage points. Consistent with the MHRS findings, the largest gains were for lower-income adults. In a similar study, Long and Stockley (2011) estimated difference-in-differences models for 2003 to 2008 from the National Health Interview Survey (NHIS) and also found an increase in insurance coverage due to the reforms, although the estimates from the NHIS are somewhat smaller–an increase of three percentage points for adults overall and four to six percentage points for lower-income adults. However, unlike the findings from the MHRS and CPS, the results from the NHIS did not show any evidence of a change in the levels of ESI coverage under reform.

Finally, two studies have used the Behavioral Risk Factor Surveillance System (BRFSS) to examine the impacts of health reform in Massachusetts using difference-in-differences models for 2006 to 2008 (Zhu et al. 2010) and interrupted time-series models for 2002 to 2009 (Pande et al. 2011). While the insurance coverage measure in the BRFSS is more limited than those in the other surveys, both studies also found gains in coverage under reform in Massachusetts.

### *Access, Use and Affordability of Health Care*

Massachusetts' Chapter 58 was expected to increase access to and use of health care in the state by expanding health insurance coverage and by creating new standards that health plans needed to meet to count as coverage under the individual mandate. These "minimum creditable coverage" standards include requirements that call for a comprehensive set of benefits and limits on out-of-pocket spending and on benefit caps, all of which would tend to lower the out-of-pocket costs of health care services for individuals.

Consistent with the expanded insurance coverage and new minimum creditable coverage standards, health care access and use improved between 2006 and 2010 (Table 2). For example, in 2010, nonelderly adults in Massachusetts were more likely to have a place they usually went to when they were sick or needed advice about their health (up

**Table 2. Changes in health care access for all adults and lower-income adults 19 to 64 in Massachusetts, fall 2006 to fall 2010**

| | All adults (%) | | | Lower-income adults (%) | | |
|---|---|---|---|---|---|---|
| | 2006 | 2008 | 2010 | 2006 | 2008 | 2010 |
| Has a usual source of care (excluding the emergency department [ED]) | 85.7 | 91.2** | 90.4** | 78.5 | 86.5** | 84.2* |
| **Health care use in past year** | | | | | | |
| Any general doctor visit | 79.5 | 84.1** | 81.7 | 74.7 | 79.2 | 77.9 |
| Visit for preventive care | 69.9 | 76.2** | 75.8** | 64.5 | 71.8** | 72.1** |
| Multiple doctor visits | 64.7 | 68.6* | 69.7** | 61.0 | 65.7 | 68.5** |
| Any ED visits | 34.2 | 33.2 | 30.4* | 45.3 | 44.6 | 42.4 |
| Most recent ED visit was for non-emergency condition[a] | 16.0 | 14.6 | 12.2** | 22.9 | 20.8 | 18.8 |
| **Did not get needed care in past year** | | | | | | |
| Doctor care | 8.1 | 6.9 | 5.8* | 13.4 | 12.0 | 9.3* |
| Medical tests, treatment, or follow-up care | 9.2 | 7.8 | 7.0** | 14.0 | 13.0 | 9.6** |
| Preventive care screening | 6.9 | 5.6 | 4.4** | 8.3 | 9.3 | 5.2** |

Source: 2006–2010 Massachusetts Health Reform Surveys (all adults $N$=15,544; lower-income adults $N$=7,769).
*Notes:* Lower-income is defined as less than 300% of the federal poverty level (FPL). The table's regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, health status, disability status, whether the individual has chronic conditions or is pregnant, family income, and region-level fixed effects. Regression-adjusted estimates are predicted values calculated using the parameter estimates from the regression models to predict the outcomes that the individuals in the 2010 sample would have had if they had been observed in each of the preceding study years.
* (**) Significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
[a] A condition that the respondent thought could have been treated by a regular doctor if one had been available.

from 85.7% to 90.4%), suggesting a stronger connection to the health care system. They were also more likely to have had a preventive care visit (up from 69.9% to 75.8%) and more likely to have had multiple doctor visits (up from 64.7% to 69.7%) over the past year. The patterns of gains in access under reform were similar for all adults and for lower-income adults.

Additional evidence of improvements in access to care in Massachusetts can be seen by the decline in emergency department (ED) use between 2006 and 2010. Relative to 2006, the shares of nonelderly adults reporting any ED visit and ED visits for non-emergency conditions[14] were lower in 2010, although the drop was not statistically significant for lower-income adults. The reduction in ED visits for non-emergency conditions, in particular, is consistent with improvements in access to care and improved care delivery in the community. This could reflect the effects of health reform or other changes in the state targeted at ED use.[15]

Another element of access to care is the ability to obtain needed care in a timely manner. Nonelderly adults in Massachusetts were much less likely to report that they did not get needed care in 2010 relative to 2006. As shown in Table 2, reductions in unmet need were reported for doctor care; medical tests, treatment, or follow-up care; and preventive care screenings. Reductions in unmet need were reported for all adults and for lower-income adults.

With the increased insurance coverage and improved access to health care, we also find evidence of gains in the affordability of health care for nonelderly adults in Massachusetts under health reform (Table 3). These include a reduction in the burden of out-of-pocket health care spending and less unmet need for care because of costs. Unmet need for care because of costs was also lower in 2010 for doctor care; medical tests, treatment, or follow-up care; and preventive care screenings. These patterns held true for adults overall and for lower-income adults. Lower-income adults were also more likely to report a significant drop in problems paying medical bills under health reform. In 2010, 26.1% of lower-income nonelderly adults reported

**Table 3. Changes in affordability of health care for all adults and lower-income adults 19 to 64 in Massachusetts, fall 2006 to fall 2010**

| | All adults (%) | | | Lower-income adults (%) | | |
|---|---|---|---|---|---|---|
| | 2006 | 2008 | 2010 | 2006 | 2008 | 2010 |
| Out-of-pocket health care spending over the past year was 10% or more of family income[a] | 9.8 | 7.9 | 6.1** | 13.3 | 10.8 | 7.5** |
| **Had problems paying bills in the past year** | | | | | | |
| Medical bills | 19.4 | 17.2 | 17.5 | 30.7 | 26.1* | 26.1* |
| Other bills | 23.4 | 23.4 | 25.2 | 34.1 | 36.8 | 38.1 |
| **Unmet need for care because of costs in the past year** | | | | | | |
| Doctor care | 5.7 | 2.8** | 3.2** | 11.1 | 5.0** | 4.7** |
| Medical tests, treatment, or follow-up care | 6.0 | 3.6** | 3.7** | 10.8 | 6.5** | 5.1** |
| Preventive care screening | 3.5 | 2.3* | 2.3* | 5.8 | 4.3 | 3.1** |
| Prescription drugs | 5.3 | 3.7** | 4.4 | 9.6 | 5.1** | 6.2** |

Source: 2006–2010 Massachusetts Health Reform Surveys (all adults $N=15{,}544$; lower-income adults $N=7{,}769$).
*Notes*: Lower-income is defined as less than 300% of the federal poverty level (FPL). The table's regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, health status, disability status, whether the individual has chronic conditions or is pregnant, family income, and region-level fixed effects. Regression-adjusted estimates are predicted values calculated using the parameter estimates from the regression models to predict the outcomes that the individuals in the 2010 sample would have had if they had been observed in each of the preceding study years.
[a] Because of the way the income information is collected in the survey, the measures of spending relative to family income cannot be constructed for adults with family income above 500% of FPL.
* (**) Significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.

problems paying medical bills, as compared to 30.7% in 2006.

Other studies of the impacts on health care access and affordability using national survey data also support the gains found in the MHRS, although the work generally has been constrained by short follow-up periods for tracking changes in access to care and a limited set of measures. Long and Stockley's (2011) study using the 2003 to 2008 NHIS found some evidence of reductions in unmet need for care, delays in obtaining needed care overall, and delays in obtaining needed care due to costs by 2008. However, they also found some evidence of increases in delayed care because of difficulty getting an appointment for adults overall, and increases in delayed care because of difficulty getting to the provider during office hours for lower-income adults. Similarly, the study by Zhu et al. (2010), which used the 2006 to 2008 BRFSS, found a reduction in unmet need for care due to cost (a decline of two percentage points by 2008), but no change in the probability of having a usual source of care. Using a longer time period in the BRFSS (2002 to 2009) and a different model specification than Zhu and colleagues, Pande et al. (2011) found evidence of a stronger reduction in unmet need for care due to cost (down 4.8 percentage points) and an increase in the share of nonelderly adults with a usual source of care (up 6.6 percentage points).[16]

Finally, in work using 2002 to 2008 hospital discharge data for multiple states and difference-in-differences methods, Miller (2012) found evidence of a reduction in aggregate ED use by Massachusetts residents of between 5% and 8%, mostly due to a reduction in nonurgent visits. Those patterns are consistent with the ED reductions for non-emergency care reported for Massachusetts in the MHRS.

Given the important role of public coverage expansions in the Massachusetts reform, well designed studies of the impacts of public coverage expansions in other states can also inform our understanding of the effects of reform in Massachusetts. The recent Oregon Health Insurance Experiment, which expanded Medicaid coverage to randomly selected applicants in the state, provides the best available evidence on the impacts of public coverage expansions to low-income populations (Finkelstein et al. 2012). Evidence from the first year of the Oregon study shows

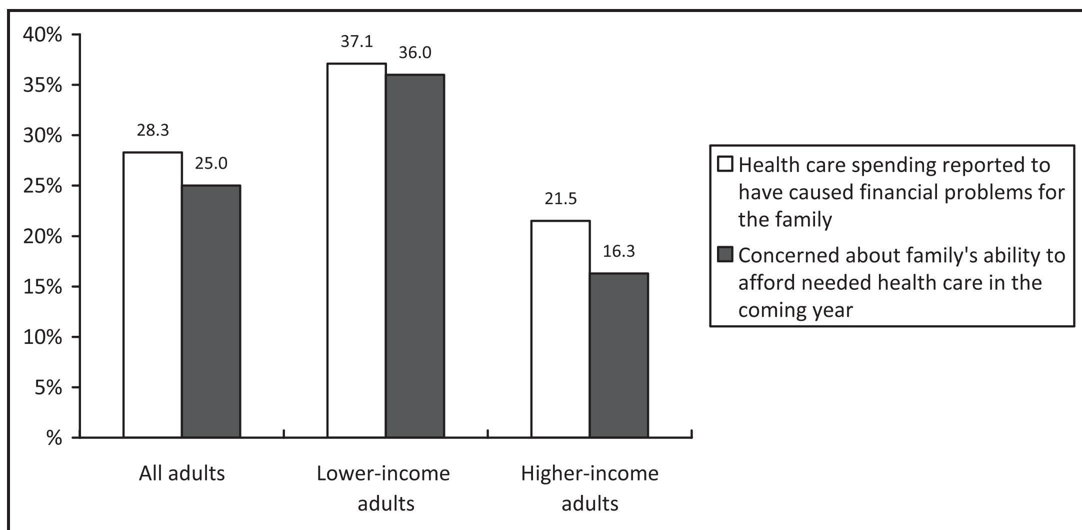


**Figure 1. Massachusetts adults 19 to 64 reporting financial problems related to health care spending and with concerns about ability to afford health care in the future, 2010** (Source: 2010 Massachusetts Health Reform Survey, $N$=3,032) (Lower-income adults are defined as adults with family income at or below 300% of the federal poverty level; higher-income adults are above that cutoff)

improvements in access to care and reductions in medical debt as a result of the expansion in coverage, findings similar to those in Massachusetts for the lower-income adults targeted by the expansion of public coverage.

## Key Challenges under Health Reform in Massachusetts

While Massachusetts has experienced significant gains in coverage, access to care, and affordability of care under health reform, achieving those gains has been challenging. Chapter 58 introduced a complex set of changes in the state's health insurance and health care sectors, made more complicated by the changing economic and political landscape.

### *Continuing Increase in Health Care Costs*

Health care costs in Massachusetts are high and continue to grow, reflecting, in part, the state's decision to defer addressing costs in the 2006 legislation so as not to hold up the expansion in coverage. Between 2004 and 2009, personal health care spending per capita in Massachusetts increased by an average of 5.8% per year, to $9,278 in 2009, as compared to an average increase of 4.7%, to $6,815, for the nation as a whole (Cuckler et al. 2011). Consequently, the affordability of health care and financial problems related to high health care costs continue to burden many families in the state (Table 3). In 2010, more than one-quarter of nonelderly adults in Massachusetts reported that health care spending had caused financial problems for their family over the year, and a quarter reported that they were "not too confident" or "not confident at all" in their ability to afford the health care their family will need in the coming year (Figure 1). These findings are even starker for lower-income adults, where more than one-third reported that health care spending has caused financial problems for their family and more than one-third reported concern about their family's ability to afford needed health care in the coming year.

In the absence of any intervention, the burden of high health care costs will likely worsen, as health care spending per capita in Massachusetts, already the highest in the country, is projected to nearly double between 2010 and 2020 (Massachusetts Health Care Quality and Cost Council 2009). Beginning with the Massachusetts Health Care Quality and Cost Council that was created as part of the 2006 legislation, Massachusetts has invested considerable public and private resources

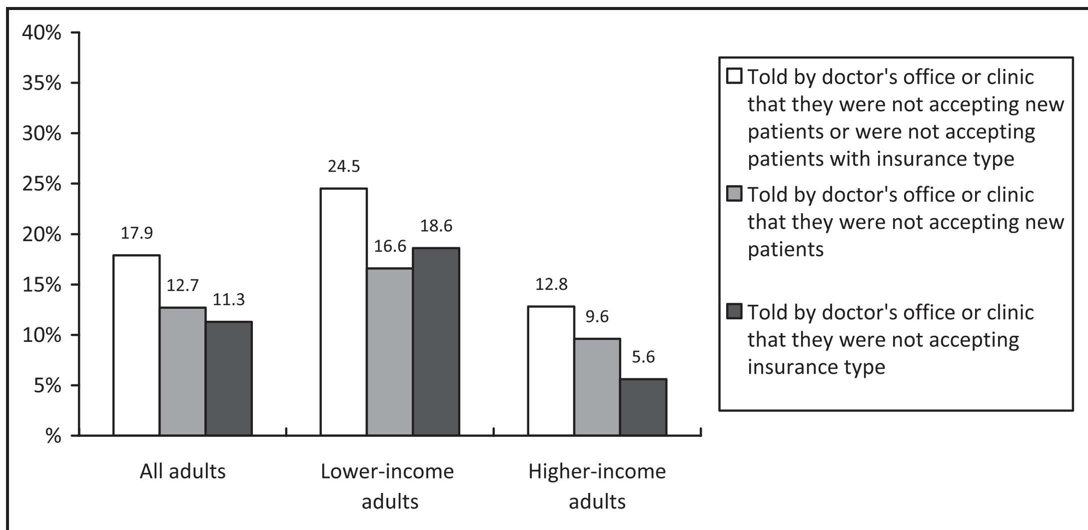


**Figure 2. Massachusetts adults 19 to 64 reporting problems getting care over the past year due to provider access issues, 2010** (Source: 2010 Massachusetts Health Reform Survey, *N*=3,032) (Lower-income adults are defined as adults with family income at or below 300% of the federal poverty level; higher-income adults are above that cutoff)

into understanding the drivers of health care costs in the state. That has included wide-ranging discussions across stakeholders of potential strategies to "bend the curve," as well as extensive annual public hearings on health care costs sponsored by the Division of Health Care Finance and Policy beginning in 2010, and reports issued by the Office of the Attorney General analyzing variation in health care prices (see, for example, Massachusetts Attorney General's Office 2011). There is strong consensus in the state on the need to address rising health care costs as evidenced by a 2011 opinion poll showing 78% of respondents believing the high cost of health care to be either a "major problem" or "crisis" in the state (SteelFisher et al. 2011).

After much debate in the state legislature, the state enacted a new law to address health care costs in August 2012: An Act Improving the Quality of Health Care and Reducing Costs Through Increased Transparency, Efficiency and Innovation (Chapter 224 of the Acts of 2012). This law establishes a statewide goal of bringing the rate of growth in per-capita health care spending down to the rate of growth of the gross state product. That reduction is to be accomplished by, among other things, encouraging wide adoption of alternative payment methodologies by both public and private payers (including specific targets for Medicaid); supporting the expansion of electronic health records and health information technology; placing new scrutiny on health care market power and price variation (with the potential of penalties for health care entities that exceed cost growth benchmarks); and increasing price transparency for consumers (Gosline and Rodman 2012). In addition to those changes, for a number of years now, there have been private efforts experimenting with alternative payment methods by providers and insurers in the state to improve health care quality and reduce costs (see, for example, Blue Cross Blue Shield of Massachusetts' Alternative Quality Contract in Chernew et al. 2011).

### *Concerns about Provider Capacity with Expanded Coverage*

With the significant increase in insurance coverage under health reform in Massachusetts, there were concerns about the ability of the health care system to meet the care needs of those who gained coverage while maintaining provider access for those who were already insured. While hard data on provider capacity in Massachusetts are difficult to come by,

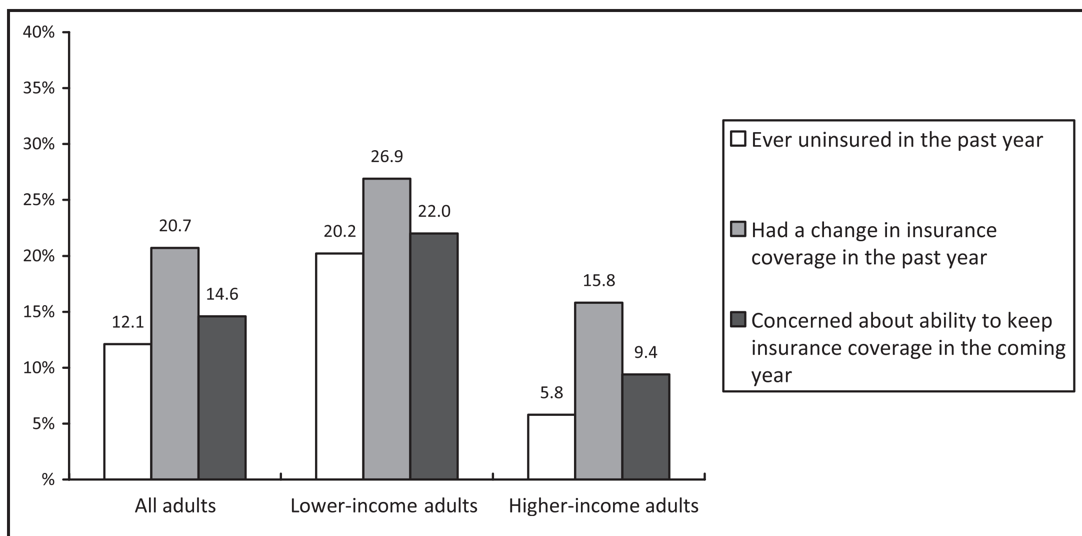


**Figure 3. Massachusetts adults 19 to 64 reporting lack of coverage or unstable insurance coverage over the past year and concerns about keeping insurance coverage in the future, 2010** (Source: 2010 Massachusetts Health Reform Survey, *N*=3,032) (Lower-income adults are defined as adults with family income at or below 300% of the federal poverty level; higher-income adults are above that cutoff)

some residents have reported problems finding providers. In 2010, for example, 17.9% of nonelderly adults in the state reported problems getting care because of difficulties finding a provider who would see them (Figure 2). As shown, a quarter (24.5%) of lower-income adults and 12.8% of higher-income adults reported problems getting care because they were told that a provider was not taking new patients or not taking patients with their type of insurance. While these questions were not included in the MHRS prior to health reform, the NHIS shows some increases in the delays in obtaining needed care because of difficulty getting an appointment under health reform in Massachusetts (Long and Stockley 2011).

The state is taking several approaches to broaden provider capacity under its new payment reform law. These initiatives include: expanding the role of physician assistants to act as primary care providers; expanding the role of limited service clinics to act as a point of access to health care services provided by nurse practitioners; expanding an existing workforce loan forgiveness program to include providers of behavioral, substance use disorder and mental health services; and, establishing a new primary care residency program supported by the state.

*Churning in Coverage*

While Massachusetts has had a significant gain in insurance coverage under health reform, including an increase in the share of adults with full-year coverage, just under one in 10 nonelderly adults were uninsured at some point over the prior year and one in five experienced a change in insurance coverage in 2010 (Figure 3). Further, almost a quarter (22%) of lower-income adults and almost one in 10 (9.4%) higher-income adults reported that they were "not too confident" or "not confident at all" in their ability to keep their current insurance coverage in the coming year. Transitions in coverage raise concerns about continuity of care because individuals may have to change health plans and providers as they change coverage or because they may experience periods with no insurance coverage at all.

The state has implemented, or is in the process of implementing, a number of operational improvements to reduce unnecessary churn in its Medicaid program, some of which were directives in the new payment reform law recently passed by the legislature. These efforts include: providing families with Medicaid renewal forms that are already filled in with information obtained from administrative

records to facilitate recertification; implementing "express lane" policies for Medicaid renewal for subgroups of enrollees who are unlikely to have had changes in eligibility; increasing administrative data matching with other state agencies to obtain the information needed to determine Medicaid eligibility; relying on the eligibility redetermination processes of other programs, such as the Supplemental Nutrition Assistance Program (SNAP, formerly food stamps), to satisfy Medicaid eligibility requirements; and creating a centralized electronic document management system to facilitate the sharing of information across programs and agencies.

*Strategies to Reach the Remaining Uninsured*

While Massachusetts enjoys the lowest uninsurance rate in the country, there is an ongoing effort in the state to bring the remaining uninsured into coverage. Those who remain without coverage in Massachusetts are often young, male, single, and without children, with many reporting low family incomes that would likely make them eligible for public coverage (Long, Stockley, and Dahlen 2012b). These are often population groups that are hard to reach and can be difficult to persuade to obtain coverage.

Massachusetts has invested considerable resources into reaching hard-to-cover populations, including a statewide outreach and enrollment effort, with the Medicaid program as the lead for coordinating public and private initiatives (Raymond 2011; Stoll 2012). During the first four years of reform, the state provided grants totaling $11.5 million to support outreach and enrollment assistance by nonprofit organizations. In addition, since 2006, the Blue Cross Blue Shield of Massachusetts Foundation has awarded $3 million in community grants for outreach and enrollment. Also, the Commonwealth Health Insurance Connector Authority, Massachusetts' exchange, implemented an extensive ($7 million) marketing campaign, which included paid advertising and in-kind contributions from a range of business and nonprofit partners, and extensive outreach at community events.

## Prognosis for the Nation

Massachusetts has achieved its goal of near universal health insurance coverage and improved access to care under its 2006 health reform initiative. The evidence from a range of studies shows strong gains in insurance coverage, improvements in access to and use of health care, and reductions in the burden of health care costs for Massachusetts residents. There is also some evidence that those gains have translated into improvements in health status among the state's residents (Long, Stockley, and Dahlen 2012b; Courtemanche and Zapata 2012), which is consistent with the evidence of improved self-reported health status under the Oregon Health Insurance Experiment (Finkelstein et al. 2012) and reductions in mortality under earlier Medicaid expansions (Sommers, Baicker, and Epstein 2012).

Overall, the findings for Massachusetts suggest considerable optimism for the potential impacts of national reform for states that move forward with the Medicaid expansion under the ACA. While states have very different starting points and very different political and economic environments, the potential for gains in health care access and health, along with improvements in financial protections from expanded insurance coverage for states' residents, is substantial. However, achieving those gains will involve difficult trade-offs and challenges for the states—including many that Massachusetts has faced, as well as new challenges reflecting the more contentious atmosphere around national reform and the more constrained economic environment facing the country.

## Notes

1 For a summary of the ACA, see www.kff.org/healthreform/8061.cfm. For a crosswalk between the ACA and the 2006 Massachusetts legislation, see Seifert and Cohen (2011).

2 Data from the U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey. Available at: http://data.bls.gov/timeseries/LNS14000000.

3 Data from the U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplements. Table HI06. Health Insurance Coverage Status by State for All People: 2010 Available at: http://www.census.gov/hhes/www/cpstables/032011/health/toc.htm.

4 Data from U.S. Department of Labor, Bureau of Labor Statistics, Local Area Unemployment Statistics. Available at: http://www.bls.gov/lau/lastrk06.htm.

5 Data from the U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplements. Table HIA-4: Health Insurance Coverage Status and Type of Coverage by State—All People: 1999 to 2009. Available at: http://www.census.gov/hhes/www/hlthins/data/historical/.

6 Additional information on the survey is available at: http://www.urban.org/publications/411649.html.

7 The fall 2006 survey was fielded as the Commonwealth Care program was beginning for adults with family income under 100% of the FPL. Enrollment in the program began in October 2006, with about 18,000 enrolled by the end of the year (Massachusetts Division of Health Care Finance and Policy 2011).

8 Response rates for telephone surveys are declining nationally (Curtin, Presser, and Singer 2005). However, the response rate is just one element to consider in assessing the reliability of survey estimates as lower response rates are not in and of themselves an indicator of survey quality (Groves 2006). Of relevance to this study, estimates of the uninsurance rate for nonelderly adults in 2010 were quite similar for the MHRS (5.8%) and national surveys with higher response rates: the American Community Survey (6.2%), and the National Health Interview Survey (5.4%).

9 The analysis sample is limited to observations with complete data for the regression models. In general, there was little item nonresponse in the survey; however, between 4% and 6% of the sample did not provide any information on family income and another 3% to 5% would only provide information on whether income was above or below 300% of the FPL in each year. We used hotdeck procedures to impute values for the missing income data and to address an error in the income question in 2010 (Long, Stockley, and Dahlen 2012b).

10 We use the Massachusetts Executive Office of Health and Human Services (EOHSS) regions: Boston, Metro West, Northeast, Central, West, and Southeast.

11 The ACA establishes an eligibility standard of family income up to 133% of FPL for Medicaid for nonelderly adults, with a 5% income disregard.

12 These estimates are for adults 18 to 64 years old, whereas the MHRS provides estimates for adults 19 to 64 years old.

13 By quasi-experimental design, we mean methods that are designed to approximate a randomized experiment, where outcomes of the treatment group are compared to a suitable control group. Common examples of these designs include difference-in-differences and instrumental variables models. Because all MHRS respondents were affected by the reform, there is no available comparison group in the MHRS. This lack of a comparison group limits the analysis using these data to a pre/post design, which is vulnerable to the influence of confounding changes over the same time period. However, as noted earlier, the MHRS has the advantages of a large sample size for Massachusetts and a larger set of outcome measures than is available in national surveys.

14 These are emergency department visits that the respondent thought could have been treated by a regular doctor if one had been available.

15 For example, Massachusetts received a $4.5 million grant from the Centers for Medicare and Medicaid Services to support an emergency department diversion program over this period (Eccleston 2011). In addition, emergency department copayment levels for many private insurance plans increased during this time period, which may also have impacted emergency department use.

16 Several other studies have used BRFSS data in pre/post models of the impacts of health reform on access to care, including work by Clark et al. (2011) that found mixed evidence on changes in preventive care use and reductions in unmet need due to costs, and Tinsley et al. (2010) that found gains in the shares of the population with a personal health care provider and with a routine checkup in the past year.

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