# HEALTH INSURANCE COVERAGE AND HEALTH CARE ACCESS, USE, AND AFFORDABILITY IN MASSACHUSETTS: AN UPDATE AS OF FALL 2012

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# EXECUTIVE SUMMARY

In April 2006, Massachusetts passed a comprehensive health care reform bill entitled "An Act Providing Access to Affordable, Quality, Accountable Health Care" (Chapter 58 of the Acts of 2006). In order to track the impacts of Chapter 58, the Blue Cross Blue Shield of Massachusetts Foundation began funding an annual survey of nonelderly adults in the Commonwealth in the fall of 2006, just prior to the implementation of key elements of the law. That survey, called the Massachusetts Health Reform Survey (MHRS), has been fielded almost every fall in the subsequent years.[1] In 2012, the Robert Wood Johnson Foundation joined with the Blue Cross Blue Shield of Massachusetts Foundation to fund the survey in anticipation of the new round of changes to the health care system under the national Affordable Care Act (ACA), which encompasses many of the elements of Chapter 58, and other changes to be introduced by the state's new cost-containment legislation, "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 report provides an update on insurance coverage, health care access and use, and health care costs and affordability for nonelderly adults ages 19 to 64 in Massachusetts as of 2012, as the state prepares to implement the ACA and begins implementing changes under Chapter 224.

## OVERVIEW OF FINDINGS

In 2012, Massachusetts continued to benefit from the nation's highest level of health insurance coverage following its 2006 health reform initiative. Health insurance coverage for nonelderly adults in the Bay State in 2012 continued at about 95 percent, well above the 79.7 percent that is estimated for the nation overall in 2012.[2] Employer-sponsored insurance (ESI) continued to serve as the backbone of insurance coverage in the state. In 2012, 63.6 percent of nonelderly adults in the Bay State had ESI coverage, up from 61.0 percent in 2006, and above the 61.5 percent for the nation as a whole in 2012.[3] The sustained gains in insurance coverage, including ESI coverage, in Massachusetts under Chapter 58 highlight the potential for coverage gains for the rest of the nation under the ACA.

Massachusetts residents also have continued to enjoy many of the gains in access to health care and health care affordability that were achieved in the early years following the 2006 initiative. As of 2012, most nonelderly adults in Massachusetts were connected to the health care system and had a place they usually went when they were sick or needed advice about their health (87.8 percent), most reported a doctor visit in the past 12 months (81.9 percent, including 74.7 percent with a visit for preventive care), and most rated the care that they received as very good or excellent (72.4 percent). However, some residents of the state reported problems obtaining the care they needed, including one-third (33.5 percent) who reported going without needed health care.

1 The Robert Wood Johnson Foundation and the Commonwealth Fund also provided supported for survey years 2006, 2007, and 2008.

2 Authors' tabulations on the 2012 National Health Interview Survey.

3 Authors' tabulations on the 2012 National Health Interview Survey.

While data for the nation as a whole are not available for all of these measures, estimates for the nation show 80.9 percent of nonelderly adults with a usual source of care and 62.9 percent with a doctor visit in the past year.[4]

Reflecting the level of health care costs in the state, affordability of care was a problem for many nonelderly adults in Massachusetts and their families in 2012. More than one in four Massachusetts adults (27.0 percent) reported that health care spending had caused financial problems over the past year, including problems paying medical bills (17.9 percent), medical debt (20.3 percent), and unmet need because of costs (16.4 percent). This was especially true for lower- and middle-income residents, but concerns about affordability and health care costs were reported by adults at all income levels.

Health insurance coverage does not necessarily eliminate the burden of health care costs; many of the adults reporting problems with medical bills, medical debt, and unmet need for care because of costs were insured for all of the prior year. In 2012, more than one in 10 nonelderly adults with insurance coverage all year were estimated to be underinsured, defined as having high health care costs that were not covered by their insurance.[5]

Given those findings, it is perhaps not surprising that many adults in Massachusetts are worried about the future: 57.8 percent reported that they were "very worried" or "somewhat worried" about paying medical bills if they got sick or had an accident.

Rising health care costs have long been a concern in Massachusetts, leading to enactment of Chapter 224 of the Acts of 2012. Chapter 224 builds on cost-containment legislation the state enacted in 2008, "An Act to Promote Cost Containment, Transparency and Efficiency in the Delivery of Quality Health Care" (Chapter 305 of the Acts of 2008), and in 2010, "An Act to Promote Cost Containment, Transparency and Efficiency in the Provision of Quality Health Insurance for Individuals and Small Businesses" (Chapter 288 of the Acts of 2010). A primary goal of Chapter 224 is to bring the rate of growth in per-capita health care spending down to the rate of growth of the state's economy.

The changes to be implemented under Chapter 224, combined with the broad changes to the state's health care system being introduced under the ACA and earlier legislation, make the results from the 2012 Massachusetts Health Reform Survey an important new baseline as the state works to transform its health care system to deliver quality care more efficiently. More efficient care delivery is essential if the sustained gains in insurance coverage in Massachusetts are to translate into sustained gains in access to needed health care for the state's residents.

## KEY FINDINGS: HEALTH INSURANCE COVERAGE

- Health insurance coverage remains strong in Massachusetts. In 2012, 94.6 percent of nonelderly adults in the state were insured at the time of the survey, which is well above the estimated 85.9 percent insurance rate for the state in 2006 and well above the estimate for

4 Authors' tabulations on the 2012 National Health Interview Survey.

5 While data for the nation for 2012 are not available, estimates for Massachusetts have tended to be much lower than national estimates in prior years. For example, the estimate for the nation was 19.0 percent in 2010, as reported by Schoen C, Doty MM, Robertson RH, and Collins SR. "Affordable Care Act Reforms Could Reduce the Number of Uninsured US Adults by 70 Percent." *Health Affairs 2001*, 30(9): 1762-1771.

the nation as a whole in 2012 (79.2 percent).[6] In fact, Massachusetts has attained the highest coverage rate in the nation.

- Employer-sponsored insurance coverage has remained the foundation for insurance coverage in the Bay State. In fact, in 2012, 63.6 percent of nonelderly adults reported having ESI coverage, up from 61.0 percent in 2006.
- Increased insurance coverage at a point in time has translated into increased continuous coverage in the state as most (88.0 percent) nonelderly adults in 2012 reported continuous coverage over the past 12 months.
- Nonelderly adults in Massachusetts were generally happy with their health insurance coverage in 2012. Roughly two-thirds rated their health plan as very good or excellent in terms of the range of services available, the choice of doctors and other providers, and the quality of care, with some gains in the share reporting high ratings since 2006.
- Almost half (48.8 percent) of nonelderly adults reported that their plan required a referral to see a specialist in 2012, down from 58.0 percent in 2006.
- Since 2011, Massachusetts has required insurers to offer tiered networks, in which plan members are encouraged to use more cost-effective, high-quality providers through lower levels of cost sharing. In 2012, 68.0 percent of nonelderly adults were enrolled in a plan that encourages using a network of providers. Close to a third (31.4 percent) of those adults (or 26.6 percent of all nonelderly adults) reported that they were enrolled in health plans that offered a tiered network.
- However, more nonelderly adults reported problems with their health insurance coverage in 2012 than in 2006. The problems reported included that a doctor charged a lot more than their health insurance would pay and the patient was required to pay the difference (with 16.4 percent reporting this problem in 2012 up by 4.0 percentage points from 12.4 percent in 2006) and that a doctor's office did not accept their type of health insurance (with 15.3 percent reporting this problem in 2012 up by 3.9 percentage points from 11.4 percent in 2006). Over the same time period, the share reporting problems with their health insurance company paying bills declined, with 23.2 percent reporting this problem in 2012 dropping by 5.7 percentage points from 28.9 percent in 2006.
- Looking to the future, most of the nonelderly adults (83.8 percent) who were insured at the time of the survey in 2012 reported that they were "very confident" or "somewhat confident" of their ability to retain their insurance coverage in the coming year.

## KEY FINDINGS: HEALTH CARE ACCESS AND USE

- Access to care remained strong in Massachusetts in 2012, with most nonelderly adults (87.8 percent) reporting they had a place they usually go when they are sick or need advice about their health, and with most (81.9 percent) reporting a doctor visit in the past 12 months, including a preventive care visit (74.7 percent).

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6 Martinez ME and Cohen RA. *Health Insurance Coverage: Early Release of Estimates From the National Health Interview Survey, January–September 2012*. Hyattsville, MD: Division of Health Interview Statistics, National Center for Health Statistics, 2013. Estimates are for adults 18 to 64 years old.

- Some of the gains in access to health care in the early years under health reform appear to be eroding over time. For example, by 2012, the share of adults reporting that they had a usual source of care or a general doctor visit was no longer significantly larger than it had been in 2006. However, access to care in Massachusetts in 2012 is higher than that nationally where only 80.9 percent have a usual source of care and 62.9 percent reported a general doctor visit in the past year.[7]
- The return of general doctor visits to pre-reform levels may reflect changing practice patterns in the state as 39.4 percent of nonelderly adults reported seeing a nurse practitioner, physician assistant, or midwife rather than a general doctor in 2012—up from 36.0 percent in 2010.
- Changing practice patterns as well as increasing copayments may also be a factor in declines in reported emergency department (ED) use. The shares of nonelderly adults reporting any ED visit, multiple ED visits (defined as three or more visits over the year), ED visits related to a chronic condition, and ED visits for non-emergency conditions in the past 12 months[8] were all lower in 2012 than they had been in 2006, although the decline in non-emergency ED visits was not statistically significant.
- After-hours care, defined as health care received when the doctor's office or clinic is closed, was needed by about one in five (21.9 percent) of nonelderly adults over the prior 12 months. Most often that care was obtained in the hospital ED (60.8 percent). However, the use of urgent care centers has increased over time, with 13.2 percent relying on urgent care centers for after-hours care in 2012, up from 8.4 percent in 2010. After-hours care at other sites, including doctors' offices, retail clinics, and EDs, dropped over time, although the declines were not statistically significant.
- While the majority of nonelderly adults in Massachusetts were able to obtain the health care they needed in 2012, one-third (33.5 percent) reported going without needed care in the past 12 months, with unmet need highest for dental care (15.4 percent); prescription drugs (14.0 percent); and medical tests, treatment, or follow-up care (10.7 percent). The most common reason for unmet need was the cost of care, cited by 49.3 percent of those who went without needed care.
- While there was no overall change in the share of nonelderly adults reporting problems getting care between 2008 and 2012, there was a decline in recent years in those reporting problems getting primary care. In 2012, only 10.9 percent reported such problems, down by nearly 25 percent from 14.1 percent in 2008. Likely driving that decline, fewer adults reported that they were told by a doctor's office or clinic that it was not accepting new patients (declining more than 20 percent from 16.4 percent of respondents in 2008 to 13.0 percent in 2012).

## KEY FINDINGS: PROVIDER CHOICE

- The 2012 MHRS added questions on the role of cost and quality in provider choice. About three in 10 (29.7 percent) nonelderly adults reported that they considered the cost of care

7 Authors' tabulations on the 2012 National Health Interview Survey.

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

to be a major factor in choosing a doctor or hospital, as compared with 81.7 percent who considered quality of care a major factor.

- Lower-income adults and adults who were uninsured were more likely to consider cost a major factor when choosing a provider. In contrast, those with higher incomes were more likely to consider quality and provider ranking or rating.
- Nonelderly adults relied on many sources of information when choosing a provider, including information from a doctor or health care provider (45.0 percent), their health plan (37.8 percent), and the Internet (26.1 percent). More than one in 10 (12.6 percent) reported relying on information from state or government agencies.

## KEY FINDINGS: HEALTH CARE COSTS AND AFFORDABILITY

- In 2012, 42.5 percent of nonelderly adults in Massachusetts reported that health care costs were a problem in the past year, with more than one-quarter (27.0 percent) reporting that health care spending had caused financial problems for their family in the past year.
- Nearly one in 10 (8.4 percent) reported out-of-pocket health care costs greater than 10 percent of family income, almost one in five (17.9 percent) reported problems paying medical bills over the past 12 months, and one in five (20.3 percent) reported having outstanding medical bills that they were paying off over time. Furthermore, 16.4 percent reported going without needed care over the past 12 months because of costs, most often for dental care (10.2 percent) and prescription drugs (7.3 percent).
- The nonelderly adults with outstanding medical bills they were paying off over time tended to have higher health care needs and fewer family resources than did adults without medical debt. In particular, they more likely to have been uninsured at some point over the past 12 months, with 16.7 percent reporting being uninsured for part of the year, as compared with 7.4 percent for adults without medical debt.
- More than one-third (38.5 percent) of adults with medical debt had family incomes between 100 and 299 percent of the federal poverty level (FPL) in 2012.
- While the majority (59.4 percent) of adults with medical debt owed less than $2,000 in 2012, 6.0 percent reported having medical debt exceeding $10,000.
- Insurance coverage does not necessarily eliminate the burden of health care costs; 13.4 percent of the nonelderly adults who were insured for the full year were underinsured in 2012, with underinsurance higher for adults with health problems. Underinsurance is defined as having high out-of-pocket health care costs while being covered by health insurance all year. High out-of-pocket costs provide a conservative, lower-bound estimate of underinsurance, as out-of-pocket costs capture inadequate insurance coverage only for those who had high health care costs in the last year. Given that the definition of underinsurance used here is limited to those who had high health care expenditures, it is not surprising that those defined as underinsured had higher health care needs and use.
- Underinsured nonelderly adults tended to have much lower family incomes and much higher health care needs than did their counterparts who were not underinsured. For example 44.4 percent of underinsured adults had incomes below 100 percent of the FPL, as compared with

only 12.8 percent of the insured adults who were not underinsured; and 31.0 reported fair or poor health, as compared with 11.8 percent of the insured adults who were not underinsured.

- Among the nonelderly adults who reported financial problems because of health care costs, a range of strategies was employed to address those problems: Most reported cutting back on non-health-related spending (89.0 percent) and cutting back on saving or taking money from savings (77.0 percent). Many also reported cutting back on health care use (57.2 percent). Some (39.2 percent) increased work hours or took on another job, while others borrowed or took on credit card debt (42.7 percent). A small share of the adults (4.8 percent) reported that they had declared bankruptcy as a result of financial problems caused by health care spending.
- More than half (57.8 percent) of nonelderly adults in Massachusetts in 2012 reported that they were "very worried" or "somewhat worried" about their ability to pay medical bills in future if they got sick or had an accident.

## KEY FINDINGS: OUTCOMES FOR LOWER-INCOME ADULTS

- In 2012, lower-income nonelderly adults in Massachusetts (defined as adults with family incomes less than 300 percent of the FPL) continued to report high levels of insurance coverage, with 90.1 percent of the adults reporting insurance coverage in 2012—which is well above the 75.7 percent who had been insured in 2006. Nearly 80 percent of lower-income adults (79.2 percent) reported insurance coverage for the full year in 2012.
- Access to care was better for lower-income adults in 2012 than in 2006 for many measures. In 2012, lower-income adults were more likely to have had a preventive care visit and a dental visit, and less likely to have had multiple ED visits over the past year.
- However, almost half of the lower-income adults (46.1 percent) in 2012 reported unmet need for health care over the past 12 months. Unmet need was most common for dental care (24.9 percent) and prescription drugs (19.4 percent), and was often related to the cost of care.
- While affordability of care was quite similar in 2006 and 2012 on many measures for lower-income adults, lower-income adults were nearly 20 percent less likely to have problems paying medical bills in 2012 than in 2006 (26.1 percent versus 31.7 percent).

## KEY FINDINGS: OUTCOMES FOR ADULTS WITH A CHRONIC CONDITION

- In 2012, nearly all nonelderly adults with a chronic health condition (95.4 percent) reported insurance coverage at the time of the survey, significantly above the 88.2 percent with coverage in 2006.
- For most measures, access to care was also better in 2012 than in 2006 for adults with a chronic condition including increased use of dental care and reductions in hospital stays and multiple ED visits.
- However, almost half (40.5 percent) of the adults with a chronic condition reported unmet need for care in 2012. Unmet need was most common for dental care (19.4 percent) and prescription drugs (17.6 percent), and was often related to the cost of care.
- While health care costs continue to be a factor for many adults with a chronic health condition, many of the gains in health care affordability under health reform for these adults have

persisted. In particular, adults with a chronic condition were nearly 30 percent less likely in 2012 to have high out-of-pocket spending for health care than was the case in 2006 (10.3 percent versus 14.5 percent), and were 17 percent less likely to report problems paying medical bills (23.0 percent versus 27.6 percent).

## KEY FINDINGS: EMPLOYER-SPONSORED HEALTH INSURANCE FROM THE PERSPECTIVE OF WORKERS

- Employer-sponsored insurance (ESI) coverage remains strong in Massachusetts. In 2012, 89.3 percent of Massachusetts workers were employed by firms that offered coverage to one or more workers at the firm, and 77.4 percent were employed by a firm that offered coverage to them specifically. This is comparable to the ESI levels in 2006, and continues to be much higher than levels in the US as a whole. This may alleviate concerns that expanding publicly subsidized insurance would result in employers dropping coverage.
- The share of employees taking up their employers' offer of coverage also remained high in 2012, with 90.9 percent of workers who had an offer reporting coverage through an employer. Like the employer offer rate, the employee take-up rate for ESI coverage has changed little relative to 2006.
- In 2012, more workers paid twice the average employee premium contribution than did in 2006. At the same time, the share of workers reporting that they had a health plan with a deductible greater than $1,000 (which typically means a lower premium) increased from 10.3 percent of workers in 2008 to 25.1 percent in 2012. The share of workers with a high-deductible health plan combined with a health savings account also rose, from less than 2 percent in 2008 to 6.0 percent in 2012.
- The majority of workers with ESI in Massachusetts (more than 70 percent of these workers) rated their health plans as very good or excellent in 2012 in terms of the range of services offered, the choice of doctors and other providers, and the overall quality of care available. The levels of satisfaction reported in 2012 were as good as or better than those reported in 2006.
- There has been no overall change in the share of workers reporting problems with their health insurance coverage, including expensive medical bills not covered by the plan. Overall, 41.0 percent of workers reported one or more problems with their health plan in 2012, as compared with 41.3 percent in 2006.
- More than three-quarters (percent) of workers with ESI were encouraged by their health plan to use a network of providers in 2012. In addition, 27.1 percent (or 23.9 percent of all workers with ESI) reported they had access to a tiered network for doctors and 21.9 percent (or 18.5 percent of all workers with ESI) reported a tiered network for hospitals. Of the adults with access to a tiered network, roughly half (53.0 percent) reported using information about the providers in the tiered network when making health care choices.

# I. INTRODUCTION

In April 2006, Massachusetts passed a comprehensive health care reform bill, entitled "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. In order to track the impacts of Chapter 58, the Blue Cross Blue Shield of Massachusetts Foundation began funding an annual survey of nonelderly adults in the Commonwealth in the fall of 2006, just prior to the implementation of key elements of the law. That survey, called the Massachusetts Health Reform Survey (MHRS), has been fielded almost every fall in the subsequent years.[9] The Foundation has continued to fund the survey in anticipation of the new round of changes to the health care system under the 2010 national Affordable Care Act (ACA) and other changes to be introduced by the state's new cost-containment legislation, "An Act Improving the Quality of Health Care and Reducing Costs Through Increased Transparency, Efficiency and Innovation" (Chapter 224 of the Acts of 2012).[10] The 2012 legislation is intended to bring the rate of growth in per-capita health care spending in the state down to the rate of growth of the state's economy. Chapter 224 builds on earlier cost-containment legislation the state enacted in 2008, "An Act to Promote Cost Containment, Transparency and Efficiency in the Delivery of Quality Health Care" (Chapter 305 of the Acts of 2008), and in 2010, "An Act to Promote Cost Containment, Transparency and Efficiency in the Provision of Quality Health Insurance for Individuals and Small Businesses" (Chapter 288 of the Acts of 2010).[11]

Chapter 58 was the template for the ACA, which is making wide-ranging changes to the health care system nationally and in Massachusetts. As Massachusetts's 2006 reform did, the ACA utilizes Medicaid expansions, subsidies for private insurance, a health insurance marketplace, insurance market reforms, requirements for employers, and an individual coverage mandate, among other things, in an effort to expand health insurance coverage for the nation. While there are many similarities between Massachusetts' health reform and the ACA, there are also important differences. For example, both require individuals to obtain health insurance if affordable coverage is available to them, but the ACA requires this of all persons while the Massachusetts law requires it only of adults; both require employers above a certain size to offer coverage to their employees or face penalties, but the specifics of the requirements, what size employers they apply to, and the penalties vary;[12] and both expand Medicaid coverage and subsidize coverage for lower-income populations to help make insurance more affordable, but the specifics here vary as well.[13] Despite such differences in policy and the many differences across the states that will influence the implementation of the ACA, the impacts of Chapter 58 in Massachusetts highlight

9 The 2012 round of the MHRS was jointly funded by the Blue Cross Blue Shield of Massachusetts Foundation and the Robert Wood Johnson Foundation (RWJF). RWJF and the Commonwealth Fund also provided supported for survey years 2006, 2007, and 2008.

10 Gosline A and Rodman E. *Summary of Chapter 224 of the Acts of 2012.* Boston, MA: Blue Cross Blue Shield of Massachusetts Foundation, 2012, http://bluecrossmafoundation.org/publication/summary-chapter-224-acts-2012.

11 Mechanic RE, Altman SH, and McDonough JE. "The New Era of Payment Reform, Spending Targets and Cost Containment in Massachusetts: Early Lessons for the Nation." *Health Affairs*, 31(10): 2334–2342, 2012.

12 The state has made some changes in the Massachusetts health reform model in the process of implementing the ACA.

13 For a comparison of the ACA and the 2006 Massachusetts legislation, see Seifert RW and Cohen AP. *Re-forming Reform: What the Patient Protection and Affordable Care Act Means for Massachusetts.* Boston, MA: Blue Cross Blue Shield of Massachusetts Foundation, 2011, http://bluecrossfoundation.org/sites/default/files/062110NHRReportFINAL.pdf.

the potential for gains in health insurance coverage, health care access and use, and health care affordability for the rest of the nation under the ACA.

This report provides an update on insurance coverage, health care access and use, and health care costs and affordability for working-age adults 19 to 64 in Massachusetts as of 2012, as the state prepares to implement the ACA and begins implementing changes under Chapter 224.

We find that health insurance coverage remains strong in Massachusetts in 2012, with employer-sponsored coverage continuing to be the foundation of insurance coverage in the state. When gains in insurance coverage were made, access to health care improved. Access to care is better overall in 2012 than in 2006, although there is evidence in 2012 of some erosion of the gains that were made immediately after health reform. There is also evidence that health care costs are a continuing issue for many Massachusetts families, creating financial burdens and influencing people's decisions about seeking needed care. This is especially true for lower- and middle-income residents, but concerns about affordability and health care costs are apparent across the income distribution and for those with and without insurance coverage. Health insurance coverage does not guarantee access to affordable care. As a result, more than half of nonelderly adults in 2012 worried about their ability to pay their medical bills if they got sick or had an accident. The changes to be implemented under Chapter 224, combined with the broad changes to the state's health care system being introduced under the ACA[14] and earlier legislation, make 2012 an important new baseline as the state works to transform the health care system to deliver quality care more efficiently. More efficient care delivery is essential if the sustained gains in insurance coverage in Massachusetts are to translate into sustained gains in access to and use of needed health care for the state's residents.

The report is organized as follows. Chapter II describes the data and methods used in the study. Chapter III reports on health insurance coverage. Chapters IV and V address health care access and use, and health care costs and affordability, respectively. Chapter VI reports on coverage, access and use, and health care costs and affordability for lower-income adults and adults with a chronic health condition. Chapter VII examines employer-sponsored insurance from the perspective of workers. Finally, Chapter VIII summarizes key findings and considers prospects for changes to the health care system as Massachusetts looks ahead.

14 Seifert RW and Cohen AP. *Re-forming Reform: What the Patient Protection and Affordable Care Act Means for Massachusetts.* Boston, MA: Blue Cross Blue Shield of Massachusetts Foundation, 2011.

# II. DATA AND METHODS

## A. THE MASSACHUSETTS HEALTH REFORM SURVEY

The Massachusetts Health Reform Survey (MHRS) began in the fall of 2006, just prior to the implementation of key elements of Chapter 58, and has been fielded in the falls of 2006-2010 and 2012. The survey is funded by the Blue Cross Blue Shield of Massachusetts Foundation, with support for selected years from the Commonwealth Fund (2006-2008) and the Robert Wood Johnson Foundation (2006-2008, 2012). The MHRS is fielded by Social Science Research Solutions (SSRS, formerly International Communications Research) in conjunction with the Urban Institute.

Public use files for the MHRS will be available through the Inter-university Consortium for Political and Social Research (http://www.icpsr.umich.edu/icpsrweb/landing.jsp) later in 2013. Additional information about the MHRS is available in the survey methodology report.[15]

**Survey samples.** The MHRS is conducted with a random sample of approximately 3,000 working-age adults in Massachusetts in each year. In the initial years of the survey (2006-2009), "working-age" was defined as ages 18 to 64; in 2010 the definition was changed to ages 19 to 64 to establish consistency with the definition used by the Massachusetts Division of Health Care Finance and Policy, now the Center for Health Information and Analysis (CHIA).

The 2006 MHRS was based on a stratified random sample of households with a landline telephone. The survey oversampled low- and moderate-income populations targeted by many of the elements of Massachusetts' health reform initiative. The oversamples included uninsured adults, lower-income adults with family incomes below 300 percent of the federal poverty level (FPL), and moderate-income adults with family incomes between 300 and 500 percent of the FPL. The same basic design was used in the 2006-2009 rounds of the MHRS. In the 2008 MHRS, additional oversamples were added based on geographic areas and selected minority populations (African-American and Hispanic adults). In the 2010 MHRS, a random sample of cell phones was added to the survey to supplement the landline telephone sample, in order to reduce the coverage issues associated with a landline-only survey. Finally, in the 2012 MHRS, the oversample of uninsured adults was dropped from the survey to reduce survey costs.

The decision to change the survey design in 2010 to include cell phones as well as landline telephones reflects the rapid increase in the share of cell phone–only households in Massachusetts and the nation over the last few years. Estimates based on the National Health Interview Survey (NHIS) showed a nationwide increase in the share of adults in cell phone–only households from 9.6 percent in January–June 2006 to 27.8 percent in July–December 2010.[16,17] Estimates for

15 Long SK, Triplett T, Dutwin D, and Sherr S. *The Massachusetts Health Reform Survey Methodology Report.* Washington, DC: Urban Institute, 2013.

16 Blumberg SJ and Luke JV. *Wireless Substitution: Early Release of Estimates Based on Data from the National Health Interview Survey, July–December 2006.* Hyattsville, MD: National Center for Health Statistics, 2007, www.cdc.gov/nchs/nhis.htm.

17 Blumberg SJ and Luke JV. *Wireless Substitution: Early Release of Estimates from the National Health Interview Survey, July–December 2010.* Hyattsville, MD: National Center for Health Statistics, 2011, www.cdc.gov/nchs/nhis.htm.

Massachusetts also showed a large gain in the share of adults in cell phone–only households, from 7.9 percent in January–December 2007 to 16.8 percent in July 2009–June 2010.[18]

**Survey fielding.** The field period for the MHRS is generally October to early January. All interviews were conducted using the Computer Assisted Telephone Interviewing (CATI) system. The CATI system ensured that questions followed logical skip patterns and that the listed attributes automatically rotated, eliminating "question position" bias. Extensive checking of the program was conducted to assure that skip patterns and sample splits followed the design of the questionnaire. The survey was translated into Spanish and Portuguese to increase the survey's coverage by including non-English-speaking respondents in the survey.

**Survey content.** In addition to questions on insurance status, the survey includes questions that focus on the individual's access to and use of health care, out-of-pocket health care costs and medical debt, insurance premiums and covered services (for those with insurance), and health and disability status. With few exceptions, the MHRS relies on questions drawn from established, well-validated surveys.[19] While we sought to maintain consistency with those prior surveys, some questions were modified to ensure that they address the issues of particular concern in Massachusetts. In addition, we developed new questions for some issues specific to the context of Massachusetts' reform initiative.

Over time there have been changes to the content of the survey to add questions on emerging issues and, in order to keep the survey at a reasonable length, to eliminate questions that are deemed to be less useful. Key additions in the 2012 survey included questions on emergency department use; access to specialist care; factors considered by the individual in choosing health care providers and hospitals; the impact of health care spending on the individual's personal finances; the availability of a choice of health plans, including plans with tiered and limited networks; and experiences with tiered networks. Since 2011, Massachusetts has required private health plans to offer tiered networks with higher cost sharing for higher-cost providers and has published price and quality information on providers in the state, at http://hcqcc.hcf.state.ma.us/.

In order to accommodate those additions, some measures were dropped from the survey. Most notably, the questions that focused on delaying or forgoing needed health care were scaled back to focus on forgoing care only. As a result, the measures of unmet need for 2012 are not comparable to those used in earlier years.

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 expect the quality of the information reported by the respondent to be better for more

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18 The estimates for Massachusetts (and the remaining states) are based on small-area statistical modeling techniques. For a discussion of the methods and the estimates, see Blumberg SJ, Luke JV, Ganesh N, Davern ME, Boudreaux MH, and Soderberg K. *Wireless Substitution: State-level Estimates from the National Health Interview Survey, January 2007–June 2010.* National Health Statistics Reports, no 39. Hyattsville, MD: National Center for Health Statistics, 2011, at http://www.cdc.gov/nchs/data/nhsr/nhsr039.pdf.

19 These include government-sponsored surveys, such as the National Health Interview Survey (NHIS), the Medical Expenditure Panel Survey (MEPS), and Consumer Assessment of Healthcare Providers and Systems (CAHPS), and special surveys such as the Massachusetts Division of Health Care Finance and Policy's Survey of Health Insurance Status, the Commonwealth Fund's Biennial Health Insurance Survey and Consumerism in Health Care Survey, the Kaiser Family Foundation's Low-income Survey, the Urban Institute's National Survey of America's Families, and the RAND Corporation's Survey of Individual Market Candidates in California, among others.

recent circumstances and events and for events with greater saliency (e.g., current insurance status). Problems with recall are more likely for events that are more distant in time (e.g., number of doctor visits over the past 12 months), while problems with misreporting are more likely for sensitive or embarrassing questions (e.g., problems paying medical bills) or questions that are more difficult to answer (e.g., the amount of out-of-pocket health care spending over the past 12 months).

**Survey response rate.** The overall response rate for the 2012 MHRS was 33.1 percent, which combines the response rates for the landline telephone sample (37.0 percent) and the cell phone sample (25.7 percent) (Exhibit II.1). This calculation is based on the response rate calculation formula (RR3) recommended by the American Association for Public Opinion Research (AAPOR). This formula is set to determine the percent of completed interviews out of all eligible cases in the sample. While response rates for cell phone samples are generally lower than those for landline samples, the cell phone sample captures a part of the population (adults in cell phone–only households) that is missed completely in surveys that focus only on the population with a landline telephone.

**EXHIBIT II.1: SURVEY RESPONSE RATES**

| | FALL 2006 | FALL 2007 | FALL 2008 | FALL 2009 | FALL 2010 | FALL 2012 |
|---|---|---|---|---|---|---|
| **Landline sample** | 48.9% | 45.2% | 43.8% | 45.5% | 42.4% | 37.0% |
| **Cell phone sample** | - | - | - | - | 30.6% | 25.7% |
| **Total** | 48.9% | 45.2% | 43.8% | 45.5% | 38.2% | 33.1% |
| **Sample size** | 2,902 | 2,812 | 3,868 | 3,028 | 2,934 | 3,160 |

Source: 2006-2012 Massachusetts Health Reform Survey.

As with other surveys, the response rates for the landline and cell phone components of the MHRS have dropped over time. These response rates are comparable to those achieved in other recent social science and health surveys,[20] as is the decline in the response rate to the survey over time.[21,22] Survey response rates have been declining for both government and non-government surveys for more than 20 years, as contacting sample members becomes more difficult and more of the sample members who are contacted refuse to complete surveys. For example, the response rate for the Survey of Public Participation in the Arts, a supplement to the Current Population Survey, dropped by 15 percentage points between 2008 and 2012[23] and the response rate for the Pew Research Center's People and the Press polls fell from 36 percent in 1997 to 25 percent in 2003 and to 9 percent in 2012.[24] Because of concerns about the declining

20 Davern M, McAlpine D, Beebe TJ, Ziegenfuss J, Rockwood T, and Call KC. "Are Lower Response Rates Hazardous to Your Health Survey? An Analysis of Three State Telephone Health Surveys." *Health Services Research*, 45(5, Part 1):1324-44, 2010.

21 Atrostic BK, Bates N, Burt G, and Silberstein A. "Nonresponse in U.S. Government Household Surveys: Consistent Measures, Recent Trends, and New Insights." *Journal of Official Statistics*, 17(2): 209-26, 2001.

22 Curtin R, Presser S, and Singer E. "Changes in Telephone Survey Nonresponse Over the Past Quarter Century." *Public Opinion Quarterly*, 69(1 Spring):87-98, 2005.

23 Triplett T and Silber B. *2012 Summary Report for the Survey of Public Participation in the Arts.* Washington, DC: National Endowment for the Arts (Forthcoming 2013).

24 Kohut A, Keeter S, Dimrock M, Doherty C, and Christian LM. *Assessing the Representativeness of Public Opinion Surveys.* Washington, DC: Pew Research Center, 2012.

response rates across surveys, AAPOR has created a special task force to study the issue of survey refusals, with findings due in late 2013.

Notwithstanding the concern about dropping response rates over time, it is important to note that response rate is only one metric for assessing a survey, and a low response rate does not necessarily imply inaccurate estimates.[25,26] The available evidence suggests that large nonresponse bias is not that common and, when present, tends to only affect a subset of estimates from a survey.[27,28] Reassuringly, estimates of key measures in the MHRS are quite similar to those in the American Community Survey, which has a response rate of over 90 percent (Exhibit II.2).[29]

**Sample weights.** All tabulations based on the survey data were prepared using weights that adjust for the complex design of the survey, for undercoverage, and for survey nonresponse. Separate weights were constructed for the landline sample and for the combined landline and cell phone samples. The relative weights of the landline and cell phone samples for Massachusetts were determined using the NHIS estimates of the share of Massachusetts adults in households with landlines and cell phones.[30]

The final weights were constructed from a base weight for each adult that reflects his or her probability of selection for the survey and a post-stratification adjustment to ensure that the characteristics of the overall sample were consistent with the characteristics of the Massachusetts population as projected by the U.S. Census Bureau.[31] Specifically, the final weights include an adjustment to ensure that the age, sex, race/ethnicity, and geographic distribution of the sample are consistent with the distribution of the population in Massachusetts. This adjustment is needed since some adults are less likely than others to be included in the survey, resulting in them being underrepresented in the sample.

**Item nonresponse.** For the most part, survey respondents answered all the questions in the survey. As a result, there was very little missing data or item nonresponse. An exception to this was the family income measure; between four and six percent of the sample either did not know or would not provide any information on family income, and another three to five percent would only provide information on whether their family income was above or below 300 percent of the FPL. We used hot deck procedures to assign values for the missing income data based on the individual's age, sex, marital status, family type (parent or childless adult), educational attainment, and, where available, income category (above or below 300 percent of the FPL). Because of an

25 Groves M. "Nonresponse Rates and Nonresponse Bias in Household Surveys." *Public Opinion Quarterly*, 70(5): 646-675, 2006.

26 Halbesleben JR and Whitman MV. "Evaluating Survey Quality in Health Services Research: A Decision Framework for Assessing Nonresponse Bias." *Health Services Research*, 48(3): 913-30, 2013.

27 Brick JM. "The Future of Survey Sampling." *Public Opinion Quarterly*, 75(5): 872-888, 2011.

28 Groves M, Presser S, and Dipko S. "The Role of Topic Interest in Survey Participation Decisions." *Public Opinion Quarterly*, 68(1): 2-31, 2004.

29 Note that some of these variables are used in the post-stratification weighting (e.g., age, sex, race/ethnicity), which would insure that they are similar across the surveys.

30 Blumberg SJ, Luke JV, Ganesh N, Davern ME, and Boudreaux MH. *Wireless Substitution: State-level Estimates from the National Health Interview Survey, 2010-2011*. National Health Statistics Reports, no 61. Hyattsville, MD: National Center for Health Statistics, 2012, http://www.cdc.gov/nchs/data/nhsr/nhsr061.pdf.

31 For a discussion of the derivation of the population control totals generated by the U.S. Census Bureau for the Current Population Survey, see Appendix D (Derivation of Independent Population Controls) of the Current Population Survey Technical Paper 63RV: *Design and Methodology*. Washington, DC: U.S. Census Bureau, 2002, www.census.gov/prod/2002pubs/tp63rv.pdf.

**EXHIBIT II.2: CHARACTERISTICS OF MASSACHUSETTS ADULTS 19 TO 64 IN THE 2012 MASSACHUSETTS HEALTH REFORM SURVEY (MHRS) AND THE 2011 AMERICAN COMMUNITY SURVEY (ACS)**

| | 2012 MHRS | 2011 ACS |
|---|---|---|
| **Age** | | |
| 19 to 25 years | 17.4% | 16.3% |
| 26 to 34 years | 16.4% | 18.2% |
| 35 to 49 years | 33.7% | 33.2% |
| 50 to 64 years | 32.5% | 32.3% |
| **Race/ethnicity** | | |
| White, non-Hispanic | 75.9% | 76.2% |
| Non-white, non-Hispanic | 13.6% | 14.4% |
| Hispanic | 10.5% | 9.3% |
| **Female** | 51.1% | 51.4% |
| **U.S. citizen** | 93.1% | 90.4% |
| **Marital status** | | |
| Married | 51.3% | 50.1% |
| Divorced, separated, widowed | 10.8% | 13.7% |
| Never married/living with partner | 37.9% | 36.2% |
| **Education** | | |
| Less than high school | 7.5% | 8.3% |
| High school graduate (includes some college) | 49.9% | 52.7% |
| College graduate or higher | 42.6% | 39.0% |
| **Work status** | | |
| Working | 70.0% | 73.7% |
| Not working | 30.0% | 26.3% |
| **Current insurance coverage** | | |
| Uninsured | 5.4% | 5.8% |
| Insured | 94.6% | 94.2% |
| **Sample size** | 3,076 | 42,420 |

Sources: 2012 Massachusetts Health Reform Survey and 2011 American Community Survey.

error in the question on family income in 2010, there was a more elaborate adjustment to the income measure in that survey year.[32]

**Defining health insurance coverage.** Survey respondents were asked a series of "yes/no" questions about whether they had each of the different types of insurance coverage available in the state, including Medicare, ESI, and nongroup coverage, as well as the range of publicly

32 The data error and the adjustment to address that data error are described in Long SK, Stockley K, and Dahlen H. *Health Reform in Massachusetts as of Fall 2010: Getting Ready for the Affordable Care Act & Addressing Affordability.* Boston, MA: Blue Cross Blue Shield of Massachusetts Foundation, 2012, http://bluecrossmafoundation.org/sites/default/files/MHRS%20Report%20Jan2012.pdf.

funded programs.[33] Respondents were told to exclude health care plans that covered a single type of care (e.g., dental care, prescription drugs). Individuals who received care under the state's uncompensated care program were counted as uninsured.

The primary insurance coverage questions in the MHRS focus on insurance coverage at the time of the survey (i.e., current insurance coverage); however, the survey also asks those who are currently insured whether they were uninsured at any time in the prior year and asks those who are currently uninsured whether they were insured at any time in the prior year. Thus, there are three measures of insurance coverage available from the survey: the individuals' current insurance coverage, whether the individual was ever uninsured over the past 12 months, and whether the individual was ever insured over the past 12 months. Unless otherwise noted, we use "uninsured" in the text to refer to individuals who were uninsured at the time of the survey.

While most people are believed to report accurately whether they have insurance coverage in surveys, there is evidence of some misreporting of coverage type.[34,35] In Massachusetts, where several coverage options have similar names, respondents in the survey often reported being enrolled in multiple programs (e.g., Commonwealth Care and Commonwealth Choice) or having both direct purchase and public coverage. As this raises concerns about the accuracy of the reporting of coverage type for the various public programs and direct purchase, the analysis of source of coverage is limited to ESI coverage and all other types of insurance. An individual reporting both public coverage and ESI coverage (perhaps because of having coverage through the Insurance Partnership program under MassHealth or wraparound services under MassHealth) would be assigned to ESI coverage. Among lower-income adults, the "public and other coverage" category is generally reported to be public coverage, while for higher-income adults, this category is more likely to represent direct purchase or Commonwealth Choice.

## B. METHODS

This report focuses on 2012 and on changes over time since 2006, comparing 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).[36] In examining changes, we focus on 2012, 2010, and 2008 relative to 2006. Any differences between the baseline time period 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. This would include, for example, the continuing increase in health care costs in the state, a trend that predates health reform;[37] the severe economic recession that began in December

33 One advantage of the MHRS relative to national surveys is the ability to ask detailed questions about the range of insurance options available in Massachusetts. In addition, the survey also asks about other sources of care that are available in the state, such as Indian Health Service and the Health Safety Net/Uncompensated Care/Free Care program. Those types of care are excluded from the MHRS measures of insurance coverage.

34 Call KT, Davidson G, Sommers AS, Feldman R, Farseth P, and Rockwood T. "Uncovering the Missing Medicaid Cases and Assessing Their Bias for Estimates of the Uninsured." *Inquiry*, 38(4):396–408, 2001–2002.

35 Cantor JC, Monheit AC, Brownlee S, and Schneider C. "The Adequacy of Household Survey Data for Evaluating the Nongroup Health Insurance Market." *Health Services Research*, 42(4):1739–1757, 2007.

36 The 2006 survey was fielded as the Commonwealth Care program was beginning for adults with family incomes of less than 100 percent of the FPL; however, enrollment started slowly.

37 Blue Cross Blue Shield of Massachusetts Foundation. *Health Care Costs and Spending in Massachusetts: A Review of the Evidence.* Chartpack. Boston, MA: Blue Cross Blue Shield of Massachusetts Foundation, March 2013, http://bluecrossmafoundation.org/sites/default/files/download/publication/Cost%20Deck%20March%202013.pdf.

2007; and the initial implementation of some changes related to the ACA (e.g., the establishment of high-risk pools and the expansion of dependent coverage to adult children). Given the significant changes in other factors that have occurred since the implementation of Chapter 58, we cannot attribute trends over time since 2006 solely to the effects of Chapter 58.

In examining trends over time, we report estimates based on multivariate regression models that control for the characteristics of the individual and his or her family and for the region of the state in which he or she lives.[38] Exhibit II.3 summarizes the characteristics of the samples over time, comparing the values in the follow-up years with the value in the baseline year (2006)—with statistically significant differences indicated by asterisks (*). We also report on statistically significant differences relative to two years prior (e.g., 2010 versus 2008 or 2012 versus 2010). Statistically significant differences from two years earlier are indicated by carets (^).

For ease of comparison across models, we estimated linear probability models. All of the analyses were weighted and controlled for the complex design of the sample using the survey estimation procedures (svy) in Stata.[39] In the text, we focus on estimates that were statistically significant at the 5 percent level or better, unless otherwise noted.

In presenting the estimates of trends over time, we report on the outcomes for adults in the state as of 2012 and give regression-adjusted 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 2012 sample would have had if they had been observed in each of the preceding study years. This approach controls for changes in the characteristics of the sample of adults over time. The regression-adjusted estimates and simple (unadjusted) estimates are generally quite similar.

38 The variables in the model included age, sex, race/ethnicity, citizenship, marital status, education, employment, firm size, whether the individual has chronic conditions or is pregnant, family income, and region-fixed effects (to control for the average differences across regions). The analysis sample is limited to observations with complete data for the regression models.

39 StataCorp. *Stata Statistical Software: Release 12*. College Station, TX: StataCorp LP, 2011.

## EXHIBIT II.3: CHARACTERISTICS OF ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2012

| | FALL 2006 | FALL 2008 | FALL 2010 | FALL 2012 |
|---|---|---|---|---|
| **Age** | | | | |
| 19 to 25 years | 13.9% | 13.8% | 16.8% | 17.4% * |
| 26 to 34 years | 17.8% | 19.2% | 17.3% | 16.4% |
| 35 to 49 years | 38.9% | 36.7% | 35.4% * | 33.7% ** |
| 50 to 64 years | 29.4% | 30.2% | 30.4% | 32.5% ** |
| **Race/ethnicity** | | | | |
| White, non-Hispanic | 80.1% | 80.0% | 79.1% | 75.9% ** ^^ |
| Non-white, non-Hispanic | 12.1% | 13.3% | 12.7% | 13.6% |
| Hispanic | 7.8% | 6.7% | 8.2% | 10.5% ** ^ |
| **Female** | 51.5% | 51.8% | 51.1% | 51.1% |
| **U.S. citizen** | 92.6% | 94.0% | 92.6% ^^ | 93.1% |
| **Marital status** | | | | |
| Married | 55.8% | 54.2% | 52.8% | 51.3% ** |
| Living with partner | 7.1% | 7.4% | 9.2% * ^ | 7.0% ^ |
| Divorced, separated, widowed | 13.8% | 12.1% | 12.5% | 10.8% ** |
| Never married | 23.3% | 26.3% | 25.5% | 30.8% ** ^^ |
| **Parent of one or more children under 18** | 44.7% | 43.9% | 39.6% ** | 39.5% ** |
| **Education** | | | | |
| Less than high school | 7.6% | 6.8% | 8.2% | 7.5% |
| High school graduate (includes some college) | 52.3% | 49.9% | 51.5% | 49.9% |
| College graduate or higher | 40.0% | 43.3% | 40.3% | 42.6% |
| **Work status** | | | | |
| Full-time | 50.9% | 50.2% | 50.0% | 51.1% |
| Part-time | 21.6% | 21.1% | 19.2% * | 18.9% * |
| Not working | 27.4% | 28.7% | 30.8% | 30.0% |
| **Self-employed** | 8.2% | 8.8% | 9.3% | 10.2% |
| **Works at a firm with fewer than 51 employees** | 18.5% | 15.6% * | 15.8% * | 16.4% |
| **Self-reported health status** | | | | |
| Very good or excellent | 57.2% | 62.1% ** | 62.9% ** | 60.0% |
| Good | 28.0% | 23.9% ** | 22.9% ** | 25.8% |
| Fair or poor | 14.8% | 13.9% | 14.1% | 14.2% |
| **Has a health condition** [a] | 52.5% | 54.5% | 52.0% | 55.2% |
| Hypertension | 20.6% | 21.8% | 20.9% | 21.8% |
| Heart disease | 4.3% | 4.5% | 4.6% | 4.8% |
| Diabetes | 7.1% | 6.6% | 7.2% | 7.6% |
| Asthma | 15.1% | 15.4% | 15.0% | 17.9% ^ |

(continued)

**EXHIBIT II.3:** (CONTINUED)

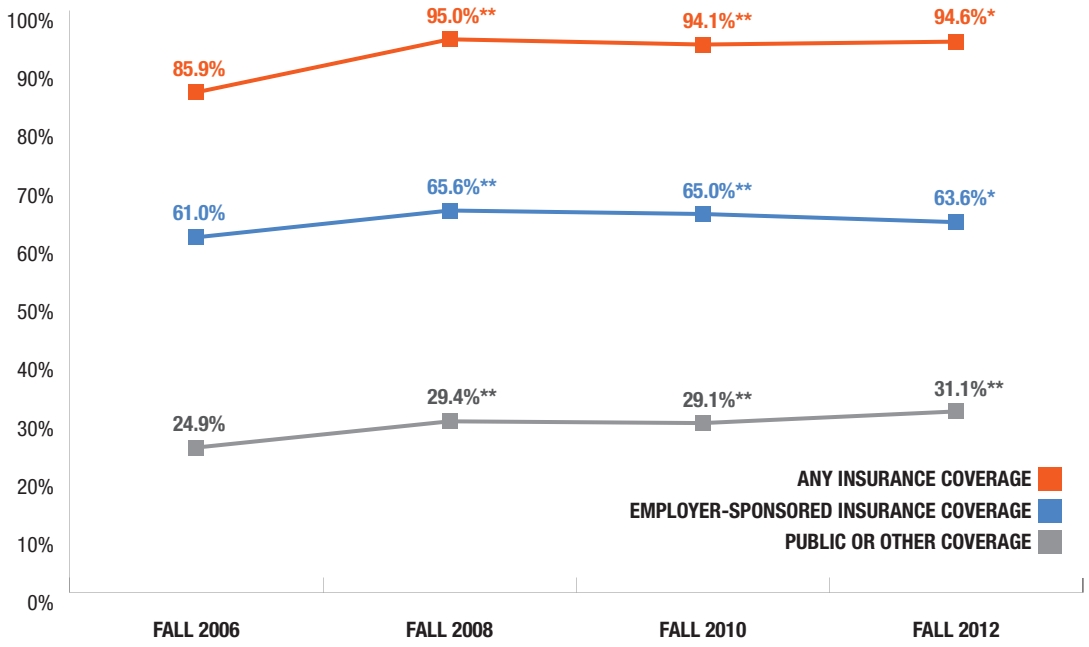
| | FALL 2006 | FALL 2008 | FALL 2010 | FALL 2012 |
|---|---|---|---|---|
| **Activities are limited by health problem** | 19.3% | 19.4% | 19.6% | 21.4% |
| **Family income relative to the federal poverty level (FPL)** | | | | |
| Less than 100% of FPL | 12.8% | 15.6% * | 16.5% ** | 18.9% ** |
| 100-299% of FPL | 31.1% | 28.6% | 30.5% | 27.3% * |
| 300-499% of FPL | 26.2% | 20.6% ** | 21.6% ** | 20.5% ** |
| 500% of FPL or more | 29.8% | 35.2% ** | 31.4% | 33.2% * |
| **Region** | | | | |
| Boston | 11.0% | 11.2% | 11.5% | 11.8% |
| Metro West | 32.5% | 33.1% | 32.9% | 34.0% |
| Northeast | 11.4% | 11.0% | 11.5% | 11.1% |
| Central | 12.2% | 12.6% | 11.8% | 12.3% |
| West | 13.0% | 12.6% | 12.6% | 12.2% |
| Southeast | 19.9% | 19.5% | 19.6% | 18.6% |
| **Sample size** | 2,912 | 3,889 | 2,943 | 3,076 |

Source: 2006-2012 Massachusetts Health Reform Survey.
*(**) Value is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) In 2010 and 2012, value is significantly different from the value two years prior at the .05 (.01) level, two-tailed test.
[a] Includes adults who report they have ever been told by a doctor or other health professional that they have at least one of the following: hypertension or high blood pressure; heart disease or congestive heart failure; diabetes; asthma; any other chronic or long-term health condition or health problem; or are pregnant.

# III. HEALTH INSURANCE COVERAGE FOR NONELDERLY ADULTS

Health insurance coverage remains quite strong in Massachusetts. In 2012, 94.6 percent of nonelderly adults in the state were insured at the time of the survey (Exhibit III.1). This level is well above the insurance rate of 85.9 percent that was estimated for 2006 just prior to the implementation of key elements of the state's health reform. This increase in coverage since 2006 is apparent whether the comparison is based on the regression-adjusted estimates reported here or on simple, unadjusted estimates (data not shown).

**EXHIBIT III.1: REGRESSION-ADJUSTED TRENDS IN HEALTH INSURANCE COVERAGE FOR ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2012**




Source: 2006-2012 Massachusetts Health Reform Survey (N=12,820).
Notes: The regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, whether the individual has a chronic condition 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 2012 sample would have had if they had been observed in the preceding study years.
*(**) Value is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) In 2010 and 2012, value is significantly different from the value two years prior at the .05 (.01) level, two-tailed test.

Insurance coverage in 2012 in the nation as a whole, at 79.2 percent of nonelderly adults, based on early-release estimates from the NHIS,[40] was much lower than coverage in Massachusetts. Further, while insurance coverage for nonelderly adults in Massachusetts increased between

40 Martinez ME and Cohen RA. *Health Insurance Coverage: Early Release of Estimates From the National Health Interview Survey, January–September 2012*. Hyattsville, MD: Division of Health Interview Statistics, National Center for Health Statistics, 2013. Estimates are for adults 18 to 64 years old.

2006 and 2012, coverage for nonelderly adults in the rest of the nation fell—down from 80.2 percent in 2006 to 79.2 percent in 2012.

Employer-sponsored insurance (ESI) coverage has remained the foundation for insurance coverage in Massachusetts, and its use has increased under health reform. In 2012, 63.6 percent of nonelderly adults reported ESI coverage, up from 61.0 percent in 2006. Public and other coverage (which includes nongroup coverage) also increased over the study period, from 24.9 percent to 31.1 percent. This latter increase likely reflects both the availability of Commonwealth Choice and Commonwealth Care, and the lingering effects of the 2007-2009 recession, during which the availability of public programs compensated in part for the loss of ESI coverage that came with increased levels of unemployment. Of those with ESI coverage in 2012, 57.8 percent obtained it through their own employer while 42.2 percent obtained it through a spouse or parent.

Increased insurance coverage in Massachusetts at a point in time has translated into a higher share of nonelderly adults with full-year coverage; in 2012, 88.0 percent reported continuous coverage over the past 12 months (Exhibit III.2). Only 2.7 percent of Massachusetts adults in 2012 reported going without health insurance coverage for all of the prior year.

**EXHIBIT III.2: REGRESSION-ADJUSTED TRENDS IN HEALTH INSURANCE COVERAGE FOR ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2012**

| | FALL 2006 | FALL 2008 | FALL 2010 | FALL 2012 |
|---|---|---|---|---|
| **Current insurance coverage** | | | | |
| Any insurance coverage | 85.9% | 95.0% ** | 94.1% ** | 94.6% ** |
| • Employer-sponsored insurance (ESI) coverage | 61.0% | 65.6% ** | 65.0% ** | 63.6% * |
| – In own name | 39.8% | 39.5% | 39.4% | 36.8% * |
| – In family member's name | 21.2% | 26.1% ** | 25.6% ** | 26.8% ** |
| • Public or other coverage | 24.9% | 29.4% ** | 29.1% ** | 31.1% ** |
| Uninsured | 14.1% | 5.0% ** | 5.9% ** | 5.4% ** |
| **Uninsurance over the past 12 months** | | | | |
| Always uninsured | 9.3% | 2.4% ** | 3.0% ** | 2.7% ** |
| Ever uninsured | 20.3% | 11.8% ** | 12.2% ** | 12.0% ** |
| Never uninsured | 79.7% | 88.2% ** | 87.8% ** | 88.0% ** |

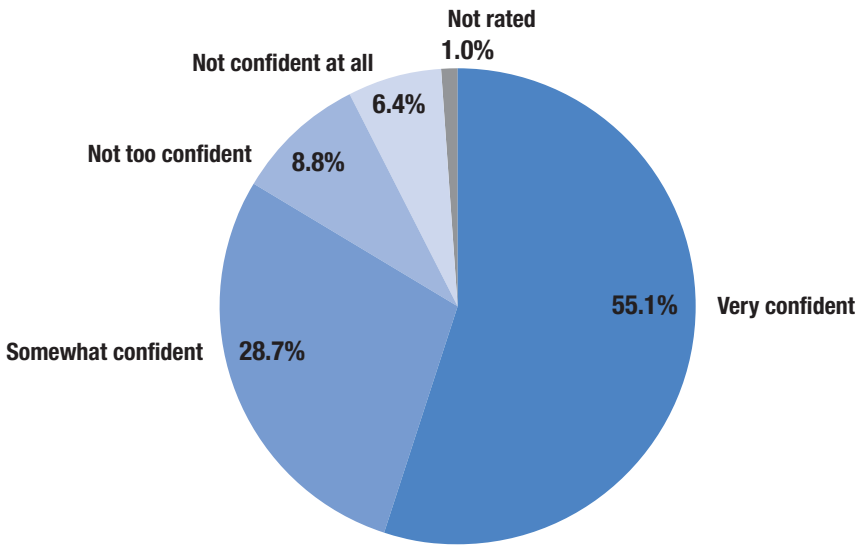
Source: 2006-2012 Massachusetts Health Reform Survey (N=12,820).
Notes: The regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, whether the individual has a chronic health condition 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 2012 sample would have had if they had been observed in the preceding study years.
*(**) Value is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) In 2010 and 2012, value is significantly different from the value two years prior at the .05 (.01) level, two-tailed test.

**Changes in health insurance coverage over the year.** In 2012, most nonelderly adults in Massachusetts retained the same coverage over the year, with only 13.0 percent reporting a change in their coverage, including changes in insurance type or health insurance plan (data not shown). Most often that change was related to a change in employment, either a change in the job or in the hours of work (40.1 percent of those with a change) or a change in the coverage that the employer made available to workers (13.8 percent of those with a change). Employment-

related factors were also the most important reasons given for gaining or losing coverage, with 28.3 percent of those who gained coverage and 41.0 percent of those who lost coverage over the year attributing the change to employment issues.

**Confidence in ability to keep health insurance coverage in the future.** In 2012, over half of the nonelderly adults who were insured at the time of the survey (55.1 percent) reported being "very confident" of their ability to retain their insurance coverage in the coming year (Exhibit III.3). Another 28.7 percent reported that they were "somewhat confident." Much smaller shares were concerned about their ability to maintain their coverage, with 8.8 percent reporting that they were "not too confident" and 6.4 percent that they were "not confident at all."

**EXHIBIT III.3: CONFIDENCE IN ABILITY TO KEEP HEALTH INSURANCE COVERAGE IN THE FUTURE FOR ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2012**




Source: 2012 Massachusetts Health Reform Survey (N=3,076).
Note: These are simple (unadjusted) estimates.

**Characteristics of current health insurance coverage.** Nonelderly adults were generally happy with their health insurance coverage, with roughly two-thirds rating their plan as very good or excellent in terms of the range of services available, the choice of doctors and other providers, and the quality of care. These ratings have tended to improve over time; the shares of adults rating the range of services available and the choice of doctors and other providers as very good or excellent was higher in 2012 than in 2006. Barriers to access to specialist care have also decreased, with 48.8 percent of nonelderly adults reporting their plan required a referral to see a specialist in 2012, down from 58.0 percent in 2006.

**EXHIBIT III.4: REGRESSION-ADJUSTED TRENDS IN SCOPE OF HEALTH INSURANCE COVERAGE BY INSURED ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2012**

| | FALL 2006 | FALL 2008 | FALL 2010 | FALL 2012 |
|---|---|---|---|---|
| **Characteristics of health plan** | | | | |
| Need referral to see specialist | 58.0% | 49.3% ** | 48.0% ** | 48.8% ** |
| Health plan has a deductible | 33.3% | 33.9% | 42.2% ** ^^ | 47.1% ** ^ |
| Health plan has a deductible greater than $1,000 per person | | 7.4% | 16.1% ^^ | 18.2% |
| Health plan has a deductible greater than $1,000 per person and includes a health savings account | | 0.9% | 2.6% ^^ | 3.8% |
| **Individual rates health plan as very good or excellent** | | | | |
| Range of services available | 59.9% | 64.2% * | 62.6% | 66.6% ** ^ |
| Choice of doctors and other providers | 63.7% | 65.9% | 66.7% | 66.6% * |
| Quality of care available | 64.0% | 66.7% | 65.3% | 67.0% |
| Location of doctors and other providers | | | 66.7% | 67.1% |
| Ability to get specialist care | | | 63.8% | 64.1% |
| Financial protection against high medical bills | | | 50.8% | 53.1% |
| **Problems with health coverage in past 12 months** | 42.6% | 39.3% | 40.6% | 41.1% |
| Had expensive medical bills for services not covered by plan | 17.1% | 16.7% | 18.2% | 17.2% |
| Doctor charged a lot more than health insurance would pay and individual had to pay the difference | 12.4% | 13.6% | 15.7% * | 16.4% ** |
| Had to contact health insurance company because bill was not paid promptly or payment was denied | 28.9% | 24.3% ** | 21.7% ** | 23.2% ** |
| Doctor's office did not accept individual's type of health insurance | 11.4% | 11.8% | 13.6% * | 15.3% ** |

Source: 2006-2012 Massachusetts Health Reform Survey (N=11,296).
Notes: The regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, whether the individual has a chronic health condition 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 2012 sample would have had if they had been observed in the preceding study years.
*(**) Value is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) In 2010 and 2012, value is significantly different from the value two years prior at the .05 (.01) level, two-tailed test.

Some trends, however, suggest that Massachusetts residents are increasingly concerned about costs under their health insurance plans. Among nonelderly adults who were insured at the time of the survey in 2012, roughly half had a plan with a deductible (47.1 percent) (Exhibit III.4). This represents an increase in the share with a deductible under their health plan since 2006 and reflects growth in cost sharing under health insurance coverage in the state over time. Consistent with that, the share of individuals with a health plan with a deductible of $1,000 or more also increased over the study period, as did the share with a high-deductible health plan with a health savings account, although the latter was still relatively rare in 2012. And 3.8 percent of adults

had a high-deductible health plan with a health savings account in 2012, compared with fewer than 2 percent in 2008.

**Problems with current health insurance coverage.** While most insured adults did not report problems with their health insurance coverage (Exhibit III.4), the share of nonelderly adults reporting that a doctor charged a lot more than their health insurance would pay and they had to pay the difference increased by 4.0 percentage points, from 12.4 percent to 16.4 percent, between 2006 and 2012. Also, the share reporting that a doctor's office did not accept their type of health insurance increased by 3.9 percentage points, from 11.4 percent to 15.3 percent. At the same time, the share of respondents reporting they had had to contact their health insurance company because a bill was not paid promptly or payment was denied has declined over time, dropping from 28.9 to 23.2 percent between 2012 and 2006. There was no change over the study period in adults reporting expensive medical bills for services not covered by their insurance plan.

**EXHIBIT III.5: SCOPE OF HEALTH PLAN NETWORK INCENTIVES FOR INSURED ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2012**

| | | FALL 2012 |
|---|---|---|
| **Encouraged by health plan to use a network of providers** | | 68.0% |
| **Among those encouraged to use a network of providers, health plan pays for costs associated with seeing a doctor who is not part of the health plan's network** | | |
| Yes | | 54.2% |
| No | | 27.9% |
| Don't know/refused | | 17.9% |
| **Among those encouraged to use a network of providers, health plan provides tiered network** | | |
| **For doctors or hospitals** | Yes | 31.4% |
| | No | 46.5% |
| | Don't know/refused | 22.0% |
| **For doctors** | Yes | 26.6% |
| | No | 52.3% |
| | Don't know/refused | 21.1% |
| **For hospitals** | Yes | 22.7% |
| | No | 52.2% |
| | Don't know/refused | 25.1% |
| **Among those whose health plan provided a tiered network** | | |
| Knows how to obtain information about providers in the tiered network | | 67.5% |
| Used information about providers in the tiered network when choosing doctors or hospitals | | 50.8% |

Source: 2012 Massachusetts Health Reform Survey (N=2,949).
Notes: These are simple (unadjusted) estimates. A network is a group of providers, such as physicians, hospitals, and pharmacies, who contract with a health plan to provide health care services to members of that health plan. In a tiered network, health insurers sort providers into different groups (or tiers) based on cost-efficiency and quality performance with more cost-efficient high-quality providers available at lower cost to the consumer. Estimates may not sum to 100 percent due to rounding.

**Availability of tiered networks in current health insurance coverage.** Since 2011, Massachusetts has required insurers to offer tiered networks, in which plan members are encouraged to use more cost-effective, high-quality providers through lower levels of cost sharing. In 2012, 68.0 percent of nonelderly adults were enrolled in a plan that encourages using a network of pro-

viders. Roughly one third (31.4 percent) of the adults in health plans with a network of providers (or 26.6 percent of adults overall [data not shown]) reported that their health plan offered a tiered network (Exhibit III.5). The remaining adults with a provider network reported either that their plan did not offer tiered networks (46.5 percent, or 51.8 percent of adults overall [data not shown]) or that they did not know whether tiered networks were offered (22.0 percent, or 21.5 percent of adults overall [data not shown]).

Among the adults who reported the availability of tiered networks, two-thirds (67.5 percent) knew how to obtain the information needed to determine whether a provider was included in a network with lower cost sharing, and half (50.8 percent) reported using that information in selecting a provider. As shown in Exhibit III.6, the adults who knew how to obtain information on providers in the tiered networks differed from those who did not on several dimensions. In particular, they had higher levels of educational attainment (48.9 percent versus 30.3 percent were college graduates) and had higher incomes (38.8 percent versus 24.3 percent had incomes at or above 500 percent of the FPL). The adults who knew how to obtain information were also more likely to be in very good or excellent health (64.3 percent versus 48.7 percent).

**EXHIBIT III.6: CHARACTERISTICS OF INSURED ADULTS 19 TO 64 IN MASSACHUSETTS PARTICIPATING IN A TIERED NETWORK, BY WHETHER KNOW HOW TO OBTAIN INFORMATION ABOUT PROVIDERS IN THE TIERED NETWORK, FALL 2012**

| | ADULTS WHO KNOW HOW TO OBTAIN INFORMATION | ADULTS WHO DO NOT KNOW HOW TO OBTAIN INFORMATION | DIFFERENCE |
|---|---|---|---|
| **Age** | | | |
| 19 to 25 years | 15.6% | 21.3% | -5.7 |
| 26 to 34 years | 13.5% | 10.9% | 2.5 |
| 35 to 49 years | 34.8% | 34.8% | 0.0 |
| 50 to 64 years | 36.2% | 33.0% | 3.1 |
| **Race/ethnicity** | | | |
| White, non-Hispanic | 77.1% | 47.9% | 29.2 ** |
| Non-white, non-Hispanic | 12.8% | 26.6% | -13.7 ** |
| Hispanic | 10.0% | 25.6% | -15.5 ** |
| **Female** | 53.9% | 44.8% | 9.1 |
| **U.S. citizen** | 94.5% | 87.7% | 6.8 |
| **Marital status** | | | |
| Married | 57.0% | 40.4% | 16.6 * |
| Living with partner | 6.7% | 9.6% | -2.9 |
| Divorced, separated, widowed | 9.8% | 13.9% | -4.2 |
| Never married | 26.5% | 36.1% | -9.6 |
| **Parent of one or more children under 18** | 37.6% | 33.1% | 4.5 |
| **Education** | | | |
| Less than high school | 5.3% | 15.3% | -10.0 * |
| High school graduate (includes some college) | 45.8% | 54.4% | -8.6 |
| College graduate or higher | 48.9% | 30.3% | 18.6 ** |

(continued)

**EXHIBIT III.6:** (CONTINUED)

| | ADULTS WHO KNOW HOW TO OBTAIN INFORMATION | ADULTS WHO DO NOT KNOW HOW TO OBTAIN INFORMATION | DIFFERENCE |
|---|---|---|---|
| **Work status** | | | |
| Full-time | 59.9% | 44.1% | 15.7 ** |
| Part-time | 17.3% | 19.6% | -2.2 |
| Not working | 22.8% | 36.3% | -13.5 * |
| **Self-employed** | 9.3% | 7.1% | 2.2 |
| **Works at a firm with fewer than 51 employees** | 15.4% | 20.5% | -5.0 |
| **Self-reported health status** | | | |
| Very good or excellent | 64.3% | 48.7% | 15.6 * |
| Good | 25.0% | 27.8% | -2.8 |
| Fair or poor | 10.7% | 23.5% | -12.8 ** |
| **Has a health condition** [a] | 59.2% | 64.2% | -5.0 |
| **Activities are limited by health problem** | 17.9% | 25.9% | -8.0 |
| **Family income relative to the federal poverty level (FPL)** | | | |
| Less than 100% of FPL | 13.7% | 29.9% | -16.2 ** |
| 100-299% of FPL | 25.7% | 28.4% | -2.6 |
| 300-499% of FPL | 21.8% | 17.4% | 4.4 |
| 500% of FPL or more | 38.8% | 24.3% | 14.5 ** |
| **Health insurance coverage over the past 12 months** | | | |
| Always insured | 92.5% | 90.8% | 1.8 |
| Part-year insured/part-year uninsured | 7.5% | 9.2% | -1.8 |
| **Current health insurance coverage** | | | |
| Employer-sponsored insurance | 72.8% | 50.2% | 22.6 ** |
| Public or other coverage | 27.2% | 49.8% | -22.6 ** |
| **Region** | | | |
| Boston | 12.4% | 20.7% | -8.4 * |
| Metro West | 33.7% | 36.2% | -2.5 |
| Northeast | 12.9% | 7.8% | 5.1 |
| Central | 14.1% | 7.0% | 7.0 ** |
| West | 9.2% | 16.8% | -7.5 |
| Southeast | 17.7% | 11.4% | 6.3 |

Source: 2012 Massachusetts Health Reform Survey (N=785).
Notes: These are simple (unadjusted) estimates.
*(**) Significantly different from zero at the .05 (.01) level, two-tailed test.
[a] Includes adults who report they have ever been told by a doctor or other health professional that they have at least one of the following: hypertension or high blood pressure; heart disease or congestive heart failure; diabetes; asthma; any other chronic or long-term health condition or health problem; or are pregnant.

In contrast, we find few differences between the adults who reported using information on tiered networks in selecting a provider and those who did not (Exhibit III.7). Understanding the role of cost and quality in consumers' choices of providers requires more in-depth information than is available in the MHRS.

**EXHIBIT III.7: CHARACTERISTICS OF ADULTS 19 TO 64 IN MASSACHUSETTS PARTICIPATING IN A TIERED NETWORK, BY WHETHER USE INFORMATION ON THE TIERED NETWORK IN CHOOSING A PROVIDER, FALL 2012**

| | ADULTS WHO USE INFORMATION ON THE TIERED NETWORK | ADULTS WHO DO NOT USE INFORMATION ON THE TIERED NETWORK | DIFFERENCE |
|---|---|---|---|
| **Age** | | | |
| 19 to 25 years | 17.2% | 13.9% | 3.3 |
| 26 to 34 years | 14.0% | 12.9% | 1.0 |
| 35 to 49 years | 37.9% | 31.6% | 6.4 |
| 50 to 64 years | 30.9% | 41.6% | -10.7 * |
| **Race/ethnicity** | | | |
| White, non-Hispanic | 77.5% | 76.8% | 0.7 |
| Non-white, non-Hispanic | 13.0% | 12.7% | 0.3 |
| Hispanic | 9.6% | 10.5% | -1.0 |
| **Female** | 52.1% | 55.7% | -3.5 |
| **U.S. citizen** | 95.3% | 93.7% | 1.6 |
| **Marital status** | | | |
| Married | 58.7% | 55.3% | 3.4 |
| Living with partner | 6.1% | 7.4% | -1.3 |
| Divorced, separated, widowed | 9.8% | 9.8% | 0.0 |
| Never married | 25.5% | 27.6% | -2.0 |
| **Parent of one or more children under 18** | 40.1% | 35.1% | 5.1 |
| **Education** | | | |
| Less than high school | 5.8% | 4.8% | 1.0 |
| High school graduate (includes some college) | 50.9% | 40.5% | 10.4 |
| College graduate or higher | 43.3% | 54.7% | -11.5 |
| **Work status** | | | |
| Full-time | 58.4% | 61.4% | -3.0 |
| Part-time | 18.7% | 16.0% | 2.7 |
| Not working | 22.9% | 22.6% | 0.3 |
| **Self-employed** | 5.3% | 13.4% | -8.0 * |
| **Works at a firm with fewer than 51 employees** | 17.7% | 13.1% | 4.6 |
| **Self-reported health status** | | | |
| Very good or excellent | 59.1% | 69.7% | -10.6 |
| Good | 29.4% | 20.4% | 9.0 |
| Fair or poor | 11.5% | 9.9% | 1.6 |
| **Has a health condition [a]** | 63.1% | 55.1% | 8.0 |
| **Activities are limited by health problem** | 22.2% | 13.3% | 8.9 * |

(continued)

**EXHIBIT III.7:** (CONTINUED)

| | ADULTS WHO USE INFORMATION ON THE TIERED NETWORK | ADULTS WHO DO NOT USE INFORMATION ON THE TIERED NETWORK | DIFFERENCE |
|---|---|---|---|
| **Family income relative to the federal poverty level (FPL)** | | | |
| Less than 100% of FPL | 15.2% | 12.1% | 3.2 |
| 100-299% of FPL | 24.8% | 26.7% | -1.8 |
| 300-499% of FPL | 24.9% | 18.5% | 6.5 |
| 500% of FPL or more | 35.0% | 42.8% | -7.8 |
| **Health insurance coverage over the past 12 months** | | | |
| Always insured | 96.0% | 88.9% | 7.1 ** |
| Part-year insured/part-year uninsured | 4.0% | 11.1% | -7.1 ** |
| **Current health insurance coverage** | | | |
| Employer-sponsored insurance | 77.3% | 68.2% | 9.1 |
| Public or other coverage | 22.7% | 31.8% | -9.1 |
| **Region** | | | |
| Boston | 13.1% | 11.6% | 1.5 |
| Metro West | 31.6% | 35.9% | -4.4 |
| Northeast | 10.6% | 15.3% | -4.7 |
| Central | 16.7% | 11.3% | 5.4 * |
| West | 11.4% | 7.0% | 4.4 |
| Southeast | 16.6% | 18.9% | -2.3 |

Source: 2012 Massachusetts Health Reform Survey (N=546).
Notes: These are simple (unadjusted) estimates.
*(**) Significantly different from zero at the .05 (.01) level, two-tailed test.
[a] Includes adults who report they have ever been told by a doctor or other health professional that they have at least one of the following: hypertension or high blood pressure; heart disease or congestive heart failure; diabetes; asthma; any other chronic or long-term health condition or health problem; or are pregnant.

**Health plan choice under current health insurance coverage.** About half of nonelderly adults (56.6 percent) reported that they had a choice of health plans when they last enrolled in coverage, with 40.2 percent of those adults reporting that their health plan choices included either a limited network plan or a tiered network plan (Exhibit III.8). Most of the remaining adults who were offered a choice of health plans reported that they did not have those options (47.5 percent), although 12.3 percent did not know whether those options were available. Almost three-quarters (71.6 percent) of adults who were offered the choice of a tiered network and the opportunity for lower cost sharing when using certain providers reported that they took that option and enrolled in a plan with a tiered network.

## EXHIBIT III.8: SCOPE OF HEALTH PLAN NETWORK OFFERINGS FOR INSURED ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2012

| | | FALL 2012 |
|---|---|---|
| **Could choose from among more than one health plan when last enrolling in a health plan** | | 56.6% |
| **Among those who could choose between more than one health plan when last enrolling in a health plan:** | | |
| **Was offered either a plan option with a limited network or a tiered network** | Yes | 40.2% |
| | No | 47.5% |
| | Don't know/refused | 12.3% |
| **Was offered a plan option with a limited network** | Yes | 33.0% |
| | No | 49.7% |
| | Don't know/refused | 17.3% |
| **Was offered a plan option with a tiered network** | Yes | 26.1% |
| | No | 55.0% |
| | Don't know/refused | 18.9% |
| **Among those who could choose between more than one health plan and had a choice of a tiered network, share with a tiered network** | | 71.6% |

Source: 2012 Massachusetts Health Reform Survey (N=2,949).
Notes: These are simple (unadjusted) estimates. A network is a group of providers, such as physicians, hospitals, and pharmacies, who contract with a health plan to provide health care services to members of that health plan. In a tiered network, health insurers sort providers into different groups (or tiers) based on cost-efficiency and quality performance with more cost-efficient high-quality providers available at lower cost to the consumer. A limited network plan is a health plan that has a smaller network of doctors or hospitals available to enrollees as a way to keep premiums lower.

# IV. HEALTH CARE ACCESS AND USE FOR NONELDERLY ADULTS

Access to care remained strong in Massachusetts in 2012 (Exhibit IV.1). Most nonelderly adults (87.8 percent) reported having a place they usually go when they are sick or need advice about their health, and most (81.9 percent) had had a doctor visit in the past 12 months, including a preventive care visit (74.7 percent). The majority (72.4) also rated the quality of the care they had received over the past year as very good or excellent.

**EXHIBIT IV.1: REGRESSION-ADJUSTED TRENDS IN HEALTH CARE ACCESS AND USE FOR ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2012**

| | FALL 2006 | FALL 2008 | FALL 2010 | FALL 2012 |
|---|---|---|---|---|
| **Has a usual source of care (excluding the emergency department [ED])** | 85.3% | 90.9%** | 90.1%** | 87.8% |
| Usual source of care is doctor's office or private clinic | 62.9% | 69.0%** | 70.1%** | 65.4% ^^ |
| **Any general doctor visit in past 12 months** | 79.9% | 83.8%** | 81.5% | 81.9% |
| Visit for preventive care | 70.4% | 76.0%** | 75.9%** | 74.7%** |
| Multiple doctor visits | 65.9% | 69.0% | 70.1%** | 67.5% |
| **Any specialist visit in past 12 months** | 51.0% | 52.7% | 54.1% | 50.5% ^ |
| **Any dental care visit in past 12 months** | 66.2% | 73.4%** | 71.8%** | 70.3%* |
| **Saw a nurse practitioner, physician assistant, or midwife rather than a general doctor for a health care visit in the past 12 months** | | | 36.0% | 39.4% ^ |
| **Any hospital stay in the past 12 months (excluding for birth)** | 12.4% | 11.7% | 10.3%* | 10.6% |
| **Took any prescription drugs in past 12 months** | 56.8% | 61.0%** | 58.3% | 59.5% |
| **Any ED visits in past 12 months** | 36.5% | 35.2% | 32.2%** ^ | 32.3%* |
| Three or more ED visits | 10.5% | 9.3% | 8.1%* | 8.1%* |
| Most recent ED visit was for non-emergency condition [a] | 17.4% | 16.1% | 13.6%** | 15.0% |
| Any ED visit related to a chronic health condition | 7.4% | 6.9% | 7.4% | 5.7%* ^ |
| **Among those who used care in the past 12 months, share rating quality of care as very good or excellent** | 61.7% | 67.9%** | 67.4%** | 72.4%** ^^ |

Source: 2006-2012 Massachusetts Health Reform Survey (N=12,820).
Notes: The regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, whether the individual has a chronic health condition 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 2012 sample would have had if they had been observed in the preceding study years.
*(**) Value is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) In 2010 and 2012, value is significantly different from the value two years prior 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.

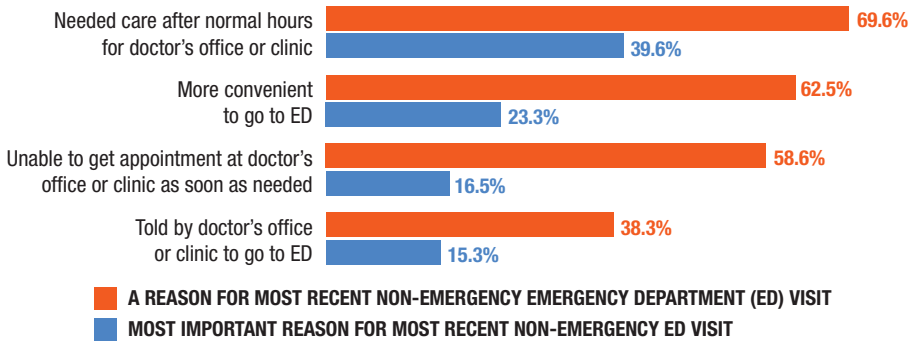
Some of the gains in access to health care in the early years under health reform, however, appear to be eroding over time. For example, by 2012, the share of adults reporting that they had a usual source of care was no longer significantly larger than it had been in 2006, nor was the share reporting a general doctor visit. In 2012, visits to general doctors returned to approximately

pre-reform levels, possibly reflecting changing practice patterns. In 2010, the MHRS added a question on visits to nurse practitioners, physician assistants, and midwives as a substitute for general doctor visits. As Exhibit IV.1 shows, 39.4 percent of nonelderly adults reported seeing such a mid-level practitioner rather than a general doctor in 2012—up from 36.0 percent in 2010.

**Use of the emergency department.** Changing care patterns may also be a factor in the decline in emergency department (ED) use by nonelderly adults between 2006 and 2012. The shares of nonelderly adults reporting any ED visit, multiple ED visits (defined as three or more visits over the year), ED visits related to a chronic condition, and ED visits for non-emergency conditions[41] in the past 12 months were all lower in 2012 than they were in 2006, although the decline in non-emergency ED visits was not statistically significant. Reductions in multiple ED visits, ED visits for non-emergency conditions, and ED visits for chronic conditions, in particular, are patterns of care that are consistent with improvements in access to care and improved care delivery in the community.[42] Reductions in ED use since 2006 have also been documented in studies using administrative data, including work by S. Miller (2012).[43]

In 2012, as was true in previous years, the most common reasons for non-emergency ED visits were needing care after normal hours at the doctor's office or clinic (69.6 percent), the convenience of the ED (62.5 percent), an inability to get an appointment at a doctor's office or clinic as soon as it was needed (58.6 percent), and being told by a doctor's office or clinic to go to the ED (38.3 percent) (Exhibit IV.2). Needing care after normal hours was the one of these reasons most commonly cited as the most important, reported by 39.6 percent of the adults.

**EXHIBIT IV.2: REPORTED REASONS FOR NON-EMERGENCY EMERGENCY DEPARTMENT USE FOR ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2012**




Source: 2012 Massachusetts Health Reform Surveys (N=3,076).
Notes: These are simple (unadjusted) estimates. Non-emergency ED visits are visits for a condition that the respondent thought could have been treated by a regular doctor if one had been available.

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

42 This decline in ED use by 2012 may also reflect the lingering effects of the recent economic downturn, as well as the effects of a $4.5 million grant from the Centers for Medicare & Medicaid Services to support an ED diversion program in Massachusetts. See Eccleston S. *Challenges in Coordination of Health Care Services.* Boston, MA: Massachusetts Division of Health Care Finance and Policy, 2011, http://www.mass.gov/chia/docs/cost-trend-docs/cost-trends-docs-2011/eccleston-stacey-june-30.pdf.

43 Miller S. "The Effect of Insurance on Emergency Room Visits: An Analysis of the 2006 Massachusetts Health Reform." *Journal of Public Economics*, 96(11-12): 893-908, 2012.

**After-hours care.** In 2012, 21.9 percent of nonelderly adult respondents reported needing after-hours care at some point over the past 12 months (Exhibit IV.3). Most adults reported relying on the hospital ED for after-hours care (60.8 percent). However, the use of urgent care centers has increased over time, with 13.2 percent relying on urgent care centers for after-hours care in 2012, up from 8.4 percent in 2010. While not statistically significant, there were decreases between 2010 and 2012 in after-hours care in community health centers (down 1.3 percentage points), in doctor's offices (down 0.8 percentage points), and by on-call doctors or doctors via telephone (down 2.7 percentage points), as well as in ED use (down 0.3 percentage points.) This suggests that urgent care centers may be serving as a substitute for primary care in many different settings.

**EXHIBIT IV.3: REGRESSION-ADJUSTED TRENDS IN AFTER-HOURS CARE FOR ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2010 TO FALL 2012**

| | FALL 2010 | FALL 2012 |
|---|---|---|
| **Needed after-hours care in past 12 months** | 20.9% | 21.9% |
| **Among those who needed after-hours care, reason for most recent episode of after-hours care** | | |
| Needed care right away | 64.9% | 64.4% |
| Not able to get to doctor's office or clinic during regular hours | 33.4% | 32.2% |
| Other reasons/do not know | 1.8% | 3.4% |
| **Among those who needed after-hours care, site of most recent after-hours care** | | |
| Did not get after-hours care | 7.6% | 7.0% |
| Hospital emergency department | 61.1% | 60.8% |
| Urgent care center | 8.4% | 13.2% ^ |
| Retail clinic | 5.6% | 5.0% |
| Community health center or other public clinic | 5.5% | 4.2% |
| Doctor's office | 4.1% | 3.3% |
| Doctor was on call/via phone | 5.5% | 2.8% |
| Other place | 2.2% | 3.6% |

Source: 2010-2012 Massachusetts Health Reform Survey (N=6,019).
Notes: The regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, whether the individual has a chronic health condition 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 2012 sample would have had if they had been observed in the preceding study years.
^(^^) In 2012, value is significantly different from the value two years prior at the .05 (.01) level, two-tailed test.

**Unmet need for care.** The frequency with which residents go without needed health care is another measure of access to health care. In 2012, one-third (33.5 percent) of nonelderly adults reported going without needed care in the past 12 months, with unmet need highest for dental care (15.4 percent), prescription drugs (14.0 percent), and medical tests, treatment, or follow-up care (10.7 percent) (Exhibit IV.4). The most common reason for unmet need was the cost of care, cited by 49.3 percent of those who went without needed care. In the 2012 MHRS, the questions on unmet need were simplified to free up survey time to address other issues. As a result, the measures of unmet need in 2012 are not comparable to those in earlier years of the survey.

**EXHIBIT IV.4: UNMET NEED FOR HEALTH CARE FOR ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2012**

| | FALL 2012 |
|---|---|
| **Did not get needed care in past 12 months** | 33.5% |
| Doctor care | 8.4% |
| Specialist care | 7.5% |
| Medical tests, treatment, or follow-up care | 10.7% |
| Preventive care screening | 5.5% |
| Prescription drugs | 14.0% |
| Dental care | 15.4% |
| **Among those who did not get needed care in the past 12 months, reasons for not getting care** | |
| Cost of care | 49.3% |
| Trouble finding a provider who would see them | 17.9% |
| Trouble getting an appointment with a provider | 20.2% |
| Difficulty getting to the place of care | 14.1% |
| Hours that care were available were not convenient | 18.6% |

Source: 2012 Massachusetts Health Reform Survey (N=3,076).
Note: These are simple (unadjusted) estimates.

Exhibit IV.5 compares the adults who reported unmet need for care in 2012 with those who did not report such unmet need. As shown, the adults with unmet need for care reported more health issues and fewer economic resources than did the adults without unmet need. For example, the adults with unmet need were more likely to report that their health was fair or poor, more likely to report a health condition, and more likely to report that their activities were limited by a health problem. At the same time, the adults with unmet need tended to report lower incomes, lower levels of insurance coverage, and, among those with coverage, lower levels of coverage through an employer. In fact, those with unmet needs for care were twice as likely to have public coverage.

**EXHIBIT IV.5: CHARACTERISTICS OF ADULTS 19 TO 64 IN MASSACHUSETTS, BY WHETHER HAD UNMET NEED FOR HEALTH CARE, FALL 2012**

| | ADULTS WITH UNMET NEED FOR HEALTH CARE | ADULTS WITH NO UNMET NEED FOR HEALTH CARE | DIFFERENCE |
|---|---|---|---|
| **Age** | | | |
| 19 to 25 years | 19.6% | 16.2% | 3.4 |
| 26 to 34 years | 19.1% | 15.0% | 4.0 |
| 35 to 49 years | 30.7% | 35.3% | -4.6 |
| 50 to 64 years | 30.6% | 33.5% | -2.9 |
| **Race/ethnicity** | | | |
| White, non-Hispanic | 72.6% | 77.7% | -5.1 * |
| Non-white, non-Hispanic | 13.2% | 13.6% | -0.4 |
| Hispanic | 14.1% | 8.6% | 5.5 ** |

(continued)

**EXHIBIT IV.5:** (CONTINUED)

| | ADULTS WITH UNMET NEED FOR HEALTH CARE | ADULTS WITH NO UNMET NEED FOR HEALTH CARE | DIFFERENCE |
|---|---|---|---|
| **Female** | 56.9% | 48.4% | 8.4 ** |
| **U.S. citizen** | 93.7% | 92.9% | 0.7 |
| **Marital status** | | | |
| Married | 41.7% | 56.5% | -14.8 ** |
| Living with partner | 9.2% | 6.0% | 3.2 * |
| Divorced, separated, widowed | 14.6% | 8.8% | 5.7 ** |
| Never married | 34.5% | 28.7% | 5.8 * |
| **Parent of one or more children under 18** | 39.2% | 39.8% | -0.7 |
| **Education** | | | |
| Less than high school | 11.7% | 5.3% | 6.4 ** |
| High school graduate (includes some college) | 58.6% | 45.3% | 13.3 ** |
| College graduate or higher | 29.7% | 49.3% | -19.6 ** |
| **Work status** | | | |
| Full-time | 40.1% | 56.8% | -16.7 ** |
| Part-time | 21.0% | 18.1% | 3.0 |
| Not working | 38.9% | 25.2% | 13.7 ** |
| **Self-employed** | 8.7% | 11.0% | -2.3 |
| **Works at a firm with fewer than 51 employees** | 20.2% | 14.7% | 5.5 * |
| **Self-reported health status** | | | |
| Very good or excellent | 45.5% | 67.5% | -22.1 ** |
| Good | 31.7% | 23.0% | 8.7 ** |
| Fair or poor | 22.9% | 9.5% | 13.4 ** |
| **Has a health condition** [a] | 66.2% | 49.4% | 16.7 ** |
| **Activities are limited by health problem** | 33.4% | 15.0% | 18.4 ** |
| **Family income relative to the federal poverty level (FPL)** | | | |
| Less than 100% of FPL | 29.6% | 13.3% | 16.3 ** |
| 100-299% of FPL | 33.8% | 24.1% | 9.7 ** |
| 300-499% of FPL | 16.0% | 22.9% | -7.0 ** |
| 500% of FPL or more | 20.7% | 39.7% | -19.0 ** |
| **Health insurance coverage over the past 12 months** | | | |
| Always insured | 80.4% | 92.1% | -11.7 ** |
| Part-year insured/part-year uninsured | 15.6% | 5.7% | 9.8 ** |
| Always uninsured | 4.1% | 2.1% | 2.0 |
| **Current health insurance coverage** | | | |
| Employer-sponsored insurance | 45.8% | 72.9% | -27.1 ** |
| Public or other coverage | 45.7% | 23.6% | 22.1 ** |
| Uninsured | 8.5% | 3.5% | 5.0 ** |

(continued)

**EXHIBIT IV.5:** (CONTINUED)

| | ADULTS WITH UNMET NEED FOR HEALTH CARE | ADULTS WITH NO UNMET NEED FOR HEALTH CARE | DIFFERENCE |
|---|---|---|---|
| **Region** | | | |
| Boston | 13.2% | 11.1% | 2.1 |
| Metro West | 30.9% | 35.5% | -4.5 |
| Northeast | 9.5% | 12.0% | -2.5 |
| Central | 11.7% | 12.6% | -1.0 |
| West | 14.8% | 10.9% | 3.9 ** |
| Southeast | 19.9% | 17.9% | 2.0 |

Source: 2012 Massachusetts Health Reform Survey (N=3,076).
Notes: These are simple (unadjusted) estimates.
*(**) Significantly different from zero at the .05 (.01) level, two-tailed test.
[a] Includes adults who report they have ever been told by a doctor or other health professional that they have at least one of the following: hypertension or high blood pressure; heart disease or congestive heart failure; diabetes; asthma; any other chronic or long-term health condition or health problem; or are pregnant.

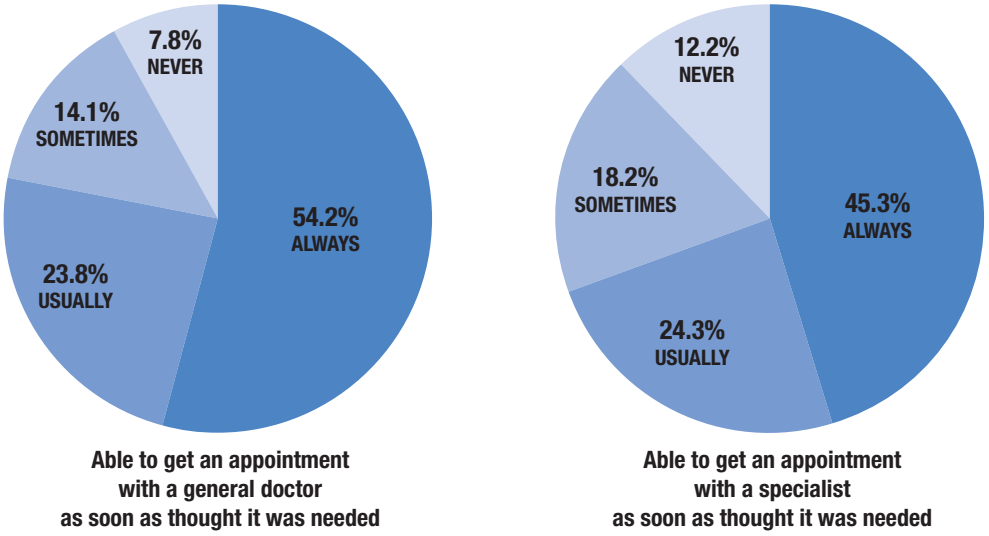
**Problems getting care and ability to get appointments when needed.** More than one in 10 nonelderly adults in Massachusetts (13.0 percent) reported being told by a doctor's office or clinic that it was not accepting new patients in 2012 (Exhibit IV.6). This is a lower share than in 2008, but it is not significantly different from 2010. In 2012, problems getting care were equally likely in accessing primary care and specialty care, as reported problems obtaining primary care have declined over time.

**EXHIBIT IV.6: REGRESSION-ADJUSTED TRENDS IN PROBLEMS OBTAINING CARE FOR ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2008 TO FALL 2012**

| | FALL 2008 | FALL 2010 | FALL 2012 |
|---|---|---|---|
| **Had problems getting care in the past 12 months** | 21.6% | 18.5%* | 19.2% |
| Told by doctor's office or clinic it was not accepting new patients | 16.4% | 12.8%** | 13.0%** |
| Told by doctor's office or clinic it was not accepting insurance type | 13.0% | 11.8% | 12.0% |
| **Had problems getting primary care in the past 12 months** | 14.1% | 13.3% | 10.9%* ^ |
| **Had problems getting specialty care in the past 12 months** | 8.8% | 8.9% | 9.6% |

Source: 2008-2012 Massachusetts Health Reform Survey (N=9,908).
Notes: The regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, whether the individual has a chronic health condition 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 2012 sample would have had if they had been observed in the preceding study years.
*(**) Value is significantly different from the value in 2008 at the .05 (.01) level, two-tailed test.
^(^^) In 2012, value is significantly different from the value two years prior at the .05 (.01) level, two-tailed test.

**EXHIBIT IV.7: ASSESSMENT OF ABILITY TO GET AN APPOINTMENT WITH A GENERAL DOCTOR AND A SPECIALIST AS SOON AS NEEDED FOR ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2012**




Source: 2012 Massachusetts Health Reform Survey (N=3,076).
Notes: These are simple (unadjusted) estimates. These estimates exclude respondents who did not make or try to make an appointment and a small share of respondents who did not respond to the question. Totals may not sum to 100 percent due to rounding.

One element of accessing care is getting an appointment with a provider. The 2012 MHRS added a question on the ease of getting appointments with general doctors and specialists. As shown in Exhibit IV.7, more than three-quarters of nonelderly adults (78.0 percent) reported that they were usually or always able to get an appointment with a general doctor as soon as they thought it was needed over the past 12 months. It was more difficult for nonelderly adults to get an appointment with a specialist, with only 69.6 percent reporting that they were usually or always able to get an appointment as soon as they thought one was needed. Nearly one in 10 (7.8 percent) of the adults reported that they were never able to get an appointment for primary care, and more than one in 10 (12.2 percent) were never able to get an appointment for specialty care.[44]

Exhibit IV.8 compares the characteristics of the adults who reported difficulty getting an appointment with a general doctor in 2012 with those who did not report such problems. As shown, problems getting an appointment for a general doctor visit were more common for adults with more health issues and those with fewer economic resources, including insurance coverage. In particular, the adults who had problems getting an appointment were more likely to have public or other coverage or to be uninsured, and less likely to have private coverage.

44 Unfortunately, there are no national data sources to use for benchmarking the measures of difficulty in getting an appointment.

**EXHIBIT IV.8: CHARACTERISTICS OF ADULTS 19 TO 64 IN MASSACHUSETTS, BY WHETHER ALWAYS OR USUALLY ABLE TO GET AN APPOINTMENT WITH A GENERAL DOCTOR AS SOON AS NEEDED, FALL 2012**

| | ADULTS WHO HAD DIFFICULTY GETTING AN APPOINTMENT WITH A GENERAL DOCTOR | ADULTS WHO DID NOT HAVE DIFFICULTY GETTING AN APPOINTMENT WITH A GENERAL DOCTOR | DIFFERENCE |
|---|---|---|---|
| **Age** | | | |
| 19 to 25 years | 26.4% | 15.0% | 11.4 ** |
| 26 to 34 years | 23.2% | 13.7% | 9.5 ** |
| 35 to 49 years | 25.3% | 35.7% | -10.4 ** |
| 50 to 64 years | 25.1% | 35.6% | -10.5 ** |
| **Race/ethnicity** | | | |
| White, non-Hispanic | 64.9% | 79.4% | -14.6 ** |
| Non-white, non-Hispanic | 17.1% | 12.0% | 5.1 * |
| Hispanic | 18.0% | 8.5% | 9.5 ** |
| **Female** | 47.3% | 54.3% | -7.0 * |
| **U.S. citizen** | 88.1% | 95.6% | -7.5 ** |
| **Marital status** | | | |
| Married | 38.7% | 54.9% | -16.3 ** |
| Living with partner | 7.2% | 6.6% | 0.7 |
| Divorced, separated, widowed | 8.6% | 11.7% | -3.1 |
| Never married | 45.5% | 26.8% | 18.7 ** |
| **Parent of one or more children under 18** | 37.0% | 40.3% | -3.3 |
| **Education** | | | |
| Less than high school | 14.2% | 6.1% | 8.1 ** |
| High school graduate (includes some college) | 54.6% | 49.1% | 5.6 |
| College graduate or higher | 31.1% | 44.8% | -13.7 ** |
| **Work status** | | | |
| Full-time | 44.5% | 51.7% | -7.2 * |
| Part-time | 18.8% | 19.1% | -0.2 |
| Not working | 36.7% | 29.3% | 7.4 * |
| **Self-employed** | 7.8% | 9.5% | -1.7 |
| **Works at a firm with fewer than 51 employees** | 23.9% | 14.5% | 9.4 ** |
| **Self-reported health status** | | | |
| Very good or excellent | 48.7% | 61.0% | -12.3 ** |
| Good | 33.5% | 24.9% | 8.6 ** |
| Fair or poor | 17.9% | 14.1% | 3.8 |
| **Has a health condition** [a] | 57.3% | 57.6% | -0.3 |
| **Activities are limited by health problem** | 26.3% | 21.4% | 4.9 |

(continued)

**EXHIBIT IV.8:** (CONTINUED)

| | ADULTS WHO HAD DIFFICULTY GETTING AN APPOINTMENT WITH A GENERAL DOCTOR | ADULTS WHO DID NOT HAVE DIFFICULTY GETTING AN APPOINTMENT WITH A GENERAL DOCTOR | DIFFERENCE |
|---|---|---|---|
| **Family income relative to the federal poverty level (FPL)** | | | |
| Less than 100% of FPL | 32.0% | 15.8% | 16.2 ** |
| 100-299% of FPL | 30.2% | 25.9% | 4.3 |
| 300-499% of FPL | 16.4% | 21.8% | -5.3 * |
| 500% of FPL or more | 21.4% | 36.5% | -15.2 ** |
| **Health insurance coverage over the past 12 months** | | | |
| Always insured | 79.9% | 91.9% | -12.1 ** |
| Part-year insured/part-year uninsured | 13.5% | 7.3% | 6.2 * |
| Always uninsured | 6.2% | 0.8% | 5.4 * |
| **Current health insurance coverage** | | | |
| Employer-sponsored insurance | 47.8% | 68.3% | -20.5 ** |
| Public or other coverage | 42.5% | 28.9% | 13.6 ** |
| Uninsured | 9.7% | 2.8% | 6.9 ** |
| **Region** | | | |
| Boston | 15.4% | 10.9% | 4.5 |
| Metro West | 26.8% | 34.7% | -7.9 ** |
| Northeast | 11.1% | 11.5% | -0.3 |
| Central | 13.9% | 12.4% | 1.4 |
| West | 14.2% | 11.7% | 2.5 |
| Southeast | 18.6% | 18.8% | -0.2 |

Source: 2012 Massachusetts Health Reform Survey (N=3,076).
Notes: These are simple (unadjusted) estimates.
*(**) Significantly different from zero at the .05 (.01) level, two-tailed test.
[a] Includes adults who report they have ever been told by a doctor or other health professional that they have at least one of the following: hypertension or high blood pressure; heart disease or congestive heart failure; diabetes; asthma; any other chronic or long-term health condition or health problem; or are pregnant.

**Role of cost and quality in provider choice.** The 2012 MHRS added questions on the role of cost and quality in provider choice. As shown in Exhibit IV.9, most (85.4 percent) of the adults reported that cost of care, quality of care, or provider ranking/rating was a major factor in their choice of a doctor or hospital. Quality of care was more often considered to be a major factor (81.7 percent), followed by provider ranking/rating (52.7 percent), and cost of care (29.7 percent). Cost was somewhat more important in selecting a hospital (24.0 percent) than in selecting a doctor (20.2 percent).

**EXHIBIT IV.9: MAJOR FACTORS CONSIDERED WHEN CHOOSING PROVIDERS FOR ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2012**

| | FALL 2012 |
|---|---|
| **Major factors when choosing a doctor or hospital** | |
| Cost of care, quality of care, or provider ranking or rating | 85.4% |
| • Cost of care | 29.7% |
| • Quality of care | 81.7% |
| • Provider rank or rating | 52.7% |
| **Major factors when choosing a doctor** | |
| Cost of care, quality of care, or provider ranking or rating | 82.3% |
| • Cost of care | 20.2% |
| • Quality of care | 76.8% |
| • Provider rank or rating | 39.0% |
| **Major factors when choosing a hospital** | |
| Cost of care, quality of care, or provider ranking or rating | 77.9% |
| • Cost of care | 24.0% |
| • Quality of care | 74.0% |
| • Provider rank or rating | 45.6% |

Source: 2012 Massachusetts Health Reform Survey (N=3,076).
Note: These are simple (unadjusted) estimates.

Exhibit IV.10 compares the adults who considered cost of care to be a major factor in provider choice with those who did not consider cost to be a major factor. Not surprisingly, lower-income adults and adults who were uninsured were more likely to consider cost of care as a major factor in choosing a provider. In contrast, when we compare adults who considered quality of care or provider rank/rating to be a major factor in choosing a provider with those who did not consider those attributes to be a major factor, we find a very different pattern (Exhibit IV.11). Higher-income adults and adults who had employer-sponsored insurance were more likely to view quality of care and provider rank/rating as a major factor in provider choice.

**EXHIBIT IV.10: CHARACTERISTICS OF ADULTS 19 TO 64 IN MASSACHUSETTS, BY WHETHER COST WAS A MAJOR FACTOR IN PROVIDER CHOICE, FALL 2012**

| | ADULTS WHO REPORTED COST AS A MAJOR FACTOR | ADULTS WHO DID NOT REPORT COST AS A MAJOR FACTOR | DIFFERENCE |
|---|---|---|---|
| **Age** | | | |
| 19 to 25 years | 22.6% | 15.2% | 7.4 ** |
| 26 to 34 years | 18.2% | 15.6% | 2.7 |
| 35 to 49 years | 30.9% | 34.9% | -4.0 |
| 50 to 64 years | 28.2% | 34.3% | -6.1 ** |
| **Race/ethnicity** | | | |
| White, non-Hispanic | 63.9% | 80.9% | -17.1 ** |
| Non-white, non-Hispanic | 18.9% | 11.4% | 7.5 ** |
| Hispanic | 17.2% | 7.6% | 9.6 ** |
| **Female** | 53.9% | 49.9% | 3.9 |
| **U.S. citizen** | 88.6% | 95.1% | -6.5 ** |
| **Marital status** | | | |
| Married | 44.5% | 54.2% | -9.7 ** |
| Living with partner | 8.9% | 6.2% | 2.7 |
| Divorced, separated, widowed | 11.6% | 10.5% | 1.1 |
| Never married | 35.0% | 29.1% | 5.9 * |
| **Parent of one or more children under 18** | 41.1% | 38.8% | 2.2 |
| **Education** | | | |
| Less than high school | 11.8% | 5.7% | 6.1 ** |
| High school graduate (includes some college) | 58.1% | 46.4% | 11.6 ** |
| College graduate or higher | 30.1% | 47.8% | -17.7 ** |
| **Work status** | | | |
| Full-time | 47.5% | 52.6% | -5.0 |
| Part-time | 20.5% | 18.3% | 2.3 |
| Not working | 31.9% | 29.2% | 2.8 |
| **Self-employed** | 11.5% | 9.6% | 1.8 |
| **Works at a firm with fewer than 51 employees** | 18.4% | 15.6% | 2.8 |
| **Self-reported health status** | | | |
| Very good or excellent | 52.8% | 63.0% | -10.3 ** |
| Good | 27.4% | 25.2% | 2.2 |
| Fair or poor | 19.9% | 11.8% | 8.1 ** |
| **Has a health condition [a]** | 55.8% | 55.0% | 0.8 |
| **Activities are limited by health problem** | 25.8% | 19.6% | 6.1 * |
| **Family income relative to the federal poverty level (FPL)** | | | |
| Less than 100% of FPL | 27.3% | 15.4% | 11.9 ** |
| 100-299% of FPL | 34.5% | 24.3% | 10.2 ** |
| 300-499% of FPL | 18.2% | 21.5% | -3.3 |
| 500% of FPL or more | 20.1% | 38.8% | -18.7 ** |

(continued)

**EXHIBIT IV.10:** (CONTINUED)

| | ADULTS WHO REPORTED COST AS A MAJOR FACTOR | ADULTS WHO DID NOT REPORT COST AS A MAJOR FACTOR | DIFFERENCE |
|---|---|---|---|
| **Health insurance coverage over the past 12 months** | | | |
| Always insured | 82.5% | 90.3% | -7.8 ** |
| Part-year insured/part-year uninsured | 12.5% | 7.8% | 4.7 * |
| Always uninsured | 5.0% | 1.8% | 3.2 * |
| **Current health insurance coverage** | | | |
| Employer-sponsored insurance | 52.3% | 68.3% | -16.0 ** |
| Public or other coverage | 39.6% | 27.4% | 12.2 ** |
| Uninsured | 8.1% | 4.2% | 3.9 * |
| **Region** | | | |
| Boston | 13.3% | 11.2% | 2.1 |
| Metro West | 29.8% | 35.8% | -5.9 * |
| Northeast | 12.1% | 10.7% | 1.4 |
| Central | 16.0% | 10.8% | 5.3 * |
| West | 10.8% | 12.8% | -1.9 |
| Southeast | 17.9% | 18.9% | -1.0 |

Source: 2012 Massachusetts Health Reform Survey (N=3,076).
Notes: These are simple (unadjusted) estimates.
*(**) Significantly different from zero at the .05 (.01) level, two-tailed test.
[a] Includes adults who report they have ever been told by a doctor or other health professional that they have at least one of the following: hypertension or high blood pressure; heart disease or congestive heart failure; diabetes; asthma; any other chronic or long-term health condition or health problem; or are pregnant.

**EXHIBIT IV.11: CHARACTERISTICS OF ADULTS 19 TO 64 IN MASSACHUSETTS, BY WHETHER QUALITY OF CARE OR PROVIDER RANK OR RATING WAS A MAJOR FACTOR IN PROVIDER CHOICE, FALL 2012**

| | ADULTS WHO REPORTED QUALITY OF CARE OR PROVIDER RANK OR RATING AS A MAJOR FACTOR | ADULTS WHO DID NOT REPORT QUALITY OF CARE OR PROVIDER RANK OR RATING AS A MAJOR FACTOR | DIFFERENCE |
|---|---|---|---|
| **Age** | | | |
| 19 to 25 years | 16.6% | 21.1% | -4.5 |
| 26 to 34 years | 15.8% | 19.1% | -3.3 |
| 35 to 49 years | 35.1% | 27.7% | 7.4 * |
| 50 to 64 years | 32.6% | 32.1% | 0.5 |
| **Race/ethnicity** | | | |
| White, non-Hispanic | 78.0% | 66.5% | 11.5 ** |
| Non-white, non-Hispanic | 12.7% | 17.8% | -5.1 |
| Hispanic | 9.3% | 15.8% | -6.5 * |
| **Female** | 53.3% | 41.2% | 12.2 ** |
| **U.S. citizen** | 93.7% | 90.6% | 3.1 |

(continued)

**EXHIBIT IV.11:** (CONTINUED)

| | ADULTS WHO REPORTED QUALITY OF CARE OR PROVIDER RANK OR RATING AS A MAJOR FACTOR | ADULTS WHO DID NOT REPORT QUALITY OF CARE OR PROVIDER RANK OR RATING AS A MAJOR FACTOR | DIFFERENCE |
|---|---|---|---|
| **Marital status** | | | |
| Married | 53.5% | 41.6% | 11.9 ** |
| Living with partner | 6.7% | 8.4% | -1.7 |
| Divorced, separated, widowed | 10.5% | 12.3% | -1.8 |
| Never married | 29.3% | 37.7% | -8.4 |
| **Parent of one or more children under 18** | 40.8% | 33.7% | 7.1 * |
| **Education** | | | |
| Less than high school | 5.8% | 15.4% | -9.6 ** |
| High school graduate (includes some college) | 48.2% | 57.3% | -9.1 ** |
| College graduate or higher | 46.0% | 27.3% | 18.7 ** |
| **Work status** | | | |
| Full-time | 52.3% | 45.6% | 6.7 * |
| Part-time | 19.5% | 16.4% | 3.1 |
| Not working | 28.2% | 38.0% | -9.8 * |
| **Self-employed** | 9.9% | 11.5% | -1.7 |
| **Works at a firm with fewer than 51 employees** | 16.5% | 16.2% | 0.3 |
| **Self-reported health status** | | | |
| Very good or excellent | 62.1% | 50.4% | 11.7 ** |
| Good | 24.6% | 31.4% | -6.8 |
| Fair or poor | 13.3% | 18.2% | -4.8 |
| **Has a health condition** [a] | 56.2% | 51.0% | 5.2 |
| **Activities are limited by health problem** | 20.1% | 27.4% | -7.3 * |
| **Family income relative to the federal poverty level (FPL)** | | | |
| Less than 100% of FPL | 17.2% | 26.8% | -9.7 * |
| 100-299% of FPL | 26.0% | 33.3% | -7.3 * |
| 300-499% of FPL | 20.4% | 21.0% | -0.5 |
| 500% of FPL or more | 36.4% | 18.9% | 17.5 ** |
| **Health insurance coverage over the past 12 months** | | | |
| Always insured | 89.2% | 82.4% | 6.8 ** |
| Part-year insured/part-year uninsured | 8.8% | 10.9% | -2.1 |
| Always uninsured | 2.0% | 6.2% | -4.2 ** |
| **Current health insurance coverage** | | | |
| Employer-sponsored insurance | 66.9% | 48.8% | 18.0 ** |
| Public or other coverage | 29.2% | 39.4% | -10.2 * |
| Uninsured | 3.9% | 11.8% | -7.9 ** |

(continued)

**EXHIBIT IV.11:** (CONTINUED)

| | ADULTS WHO REPORTED QUALITY OF CARE OR PROVIDER RANK OR RATING AS A MAJOR FACTOR | ADULTS WHO DID NOT REPORT QUALITY OF CARE OR PROVIDER RANK OR RATING AS A MAJOR FACTOR | DIFFERENCE |
|---|---|---|---|
| **Region** | | | |
| Boston | 11.4% | 13.6% | -2.2 |
| Metro West | 35.4% | 27.5% | 7.9 ** |
| Northeast | 11.2% | 11.0% | 0.2 |
| Central | 11.9% | 14.2% | -2.3 |
| West | 11.6% | 15.0% | -3.5 |
| Southeast | 18.6% | 18.6% | 0.0 |

Source: 2012 Massachusetts Health Reform Survey (N=3,076).
Notes: These are simple (unadjusted) estimates.
*(**) Significantly different from zero at the .05 (.01) level, two-tailed test.
[a] Includes adults who report they have ever been told by a doctor or other health professional that they have at least one of the following: hypertension or high blood pressure; heart disease or congestive heart failure; diabetes; asthma; any other chronic or long-term health condition or health problem; or are pregnant.

When choosing a provider, nonelderly adults reported relying on many different sources of information, including their doctor or health care provider (45.0 percent), their health plan (37.8 percent), and the Internet (26.1 percent) (Exhibit IV.12). More than one in 10 of the adults (12.6 percent) reported relying on information from state or government agencies, with 4.8 percent reporting that they had used the state's "My Health Care Options" website to obtain information on hospitals or medical groups.

**EXHIBIT IV.12: SOURCES OF INFORMATION WHEN CHOOSING PROVIDERS FOR ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2012**

| | FALL 2012 |
|---|---|
| **Sources of information when last choosing a provider** | |
| A health plan | 37.8% |
| A doctor or other health care provider | 45.0% |
| A state or government agency | 12.6% |
| The Internet | 26.1% |
| Multiple sources | 36.2% |
| None of these sources | 24.6% |
| Used "My Health Care Options" website to get information on hospitals or medical groups | 4.8% |

Source: 2012 Massachusetts Health Reform Survey (N=3,076).
Note: These are simple (unadjusted) estimates.

# V. AFFORDABILITY OF HEALTH CARE FOR NONELDERLY ADULTS

In 2012, as in 2006, health care costs were a burden for many nonelderly adults in Massachusetts (Exhibit V.1). Nearly one in 10 (8.4 percent) nonelderly adults in the state reported out-of-pocket health care costs[45] greater than 10 percent of family income, almost one in five (17.9 percent) reported problems paying medical bills over the past 12 months, and one in five (20.3 percent) reported having medical bills that they were paying off over time. Furthermore, in 2012, 16.4 percent reported going without needed care over the past 12 months because of cost, most often for dental care (10.2 percent) and prescription drugs (7.3 percent) (Exhibit V.2).

**EXHIBIT V.1: REGRESSION-ADJUSTED TRENDS IN SCOPE OF HEALTH INSURANCE COVERAGE BY INSURED ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2012**

| | FALL 2006 | FALL 2008 | FALL 2010 | FALL 2012 | |
|---|---|---|---|---|---|
| **Out-of-pocket health care spending over the past 12 months relative to family income for those whose income was less than 500% of the federal poverty level (FPL)[a]** | | | | | |
| At 5% or more of family income | 23.0% | 19.4% | 18.2%* | 22.3% | ^ |
| At 10% or more of family income | 10.3% | 8.3% | 6.6%** | 8.4% | |
| **Had problems paying medical bills in past 12 months** | 20.4% | 17.5%* | 17.9% | 17.9% | |
| **Have medical bills that are paying off over time** | 19.5% | 18.9% | 20.0% | 20.3% | |
| **Among those paying medical bills over time, amount of medical debt** | | | | | |
| Less than $2,000 | 65.2% | 61.4% | 56.9%* | 59.4% | |
| $2,000 to $9,999 | 31.8% | 33.5% | 37.0% | 34.7% | |
| $10,000 or more | 3.1% | 5.1% | 6.1%* | 6.0%* | |
| **Among those paying off medical bills over time, year problems paying medical bills began** | | | | | |
| Within the last year | | | 54.6% | 50.3% | |
| 1 or more years ago | | | 45.4% | 49.7% | |
| 5 or more years ago | | | 8.1% | 4.1% | ^ |
| **Among those paying off medical bills over time, share contacted by a collection agency in past year** | | | | 46.3% | |
| **Had problems paying other bills in past 12 months** | 24.9% | 24.5% | 25.9% | 24.1% | |
| **Have a health care flexible spending account** | 11.8% | 17.1%** | 18.6%** | 19.0%** | |

Source: 2006-2012 Massachusetts Health Reform Survey (N=12,820).
Notes: The regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, whether the individual has a chronic health condition 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 2012 sample would have had if they had been observed in the preceding study years.
*(**) Value is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) In 2010 and 2012, value is significantly different from the value two years prior at the .05 (.01) level, two-tailed test.
[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.

45 Out-of-pocket costs include spending for health care—including deductibles, co-payments and uncovered services—but do not include health insurance premiums.

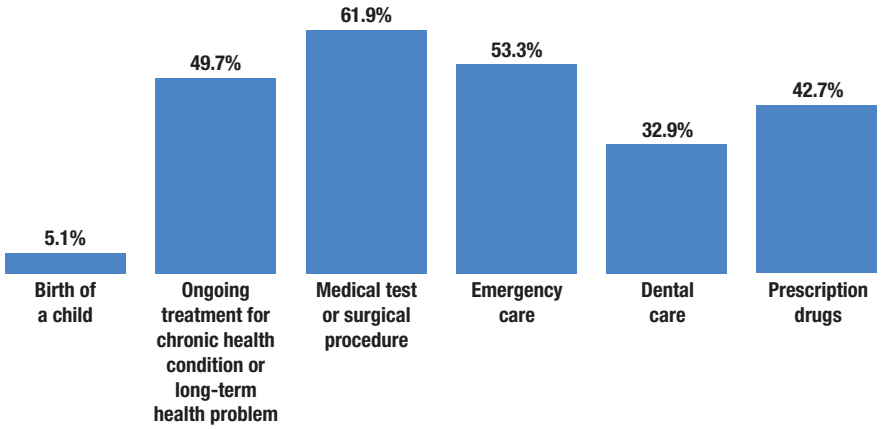
**EXHIBIT V.2: UNMET NEED FOR CARE BECAUSE OF COST FOR ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2012**

| | FALL 2012 |
|---|---|
| **Did not get needed care because of cost in the past 12 months** | 16.4% |
| Doctor care | 3.2% |
| Specialist care | 2.0% |
| Medical tests, treatment, or follow-up care | 3.8% |
| Preventive care screening | 1.9% |
| Prescription drugs | 7.3% |
| Dental care | 10.2% |

Source: 2012 Massachusetts Health Reform Survey (N=3,076).
Note: These are simple (unadjusted) estimates.

**Problems with medical bills.** The medical bills that caused problems for the adults in 2012 were often related to medical tests or surgical procedures (61.9 percent), emergency care (53.3 percent), or ongoing treatment for a chronic condition or a long-term health problem (49.7 percent) (Exhibit V.3). Of the adults struggling with medical debt, almost half (46.3 percent) reported that they were contacted by a collection agency about medical bills in the past year (Exhibit V.1).

**EXHIBIT V.3: TYPE OF CARE LEADING TO PROBLEMS PAYING MEDICAL BILLS FOR ADULTS 19 TO 64 IN MASSACHUSETTS WITH PROBLEMS PAYING MEDICAL BILLS, FALL 2012**




Source: 2012 Massachusetts Health Reform Survey (N=571).
Note: These are simple (unadjusted) estimates.

Exhibit V.4 compares adults who reported problems paying medical bills with those who did not report such problems. The adults with problems paying medical bills were much more likely to have health issues, including being in fair or poor health (28.5 percent versus 11.1 percent), having a health condition (69.9 percent versus 52.0 percent), and having their activities limited by a health problem (39.2 percent versus 17.6 percent). They were also more likely to have fewer economic resources, with only 14.5 percent at or above 500 percent of the FPL as compared with 37.4 percent for adults without problems paying medical bills. Problems with medical bills particularly affected middle-income adults with incomes between 100 and 299 percent of the FPL and adults who were uninsured.

**EXHIBIT V.4: CHARACTERISTICS OF ADULTS 19 TO 64 IN MASSACHUSETTS, BY WHETHER HAD PROBLEMS PAYING MEDICAL BILLS, FALL 2012**

| | ADULTS WITH PROBLEMS PAYING MEDICAL BILLS | ADULTS WITHOUT PROBLEMS PAYING MEDICAL BILLS | DIFFERENCE |
|---|---|---|---|
| **Age** | | | |
| 19 to 25 years | 15.0% | 17.9% | -2.9 |
| 26 to 34 years | 21.0% | 15.4% | 5.6 |
| 35 to 49 years | 32.5% | 34.0% | -1.5 |
| 50 to 64 years | 31.5% | 32.7% | -1.2 |
| **Race/ethnicity** | | | |
| White, non-Hispanic | 73.1% | 76.5% | -3.4 |
| Non-white, non-Hispanic | 12.1% | 14.0% | -1.9 |
| Hispanic | 14.8% | 9.5% | 5.3 |
| **Female** | 56.7% | 49.9% | 6.8 |
| **U.S. citizen** | 95.2% | 92.7% | 2.5 |
| **Marital status** | | | |
| Married | 44.4% | 52.8% | -8.4 * |
| Living with partner | 6.9% | 7.0% | -0.1 |
| Divorced, separated, widowed | 13.8% | 10.2% | 3.7 * |
| Never married | 34.8% | 30.0% | 4.8 |
| **Parent of one or more children under 18** | 41.4% | 39.1% | 2.4 |
| **Education** | | | |
| Less than high school | 12.2% | 6.5% | 5.7 * |
| High school graduate (includes some college) | 65.4% | 46.5% | 18.9 ** |
| College graduate or higher | 22.4% | 47.0% | -24.7 ** |
| **Work status** | | | |
| Full-time | 44.3% | 52.5% | -8.3 * |
| Part-time | 20.9% | 18.5% | 2.3 |
| Not working | 34.9% | 28.9% | 5.9 |
| **Self-employed** | 9.4% | 10.4% | -1.0 |
| **Works at a firm with fewer than 51 employees** | 20.4% | 15.5% | 4.9 |

(continued)

**EXHIBIT V.4:** (CONTINUED)

| | ADULTS WITH PROBLEMS PAYING MEDICAL BILLS | ADULTS WITHOUT PROBLEMS PAYING MEDICAL BILLS | DIFFERENCE |
|---|---|---|---|
| **Self-reported health status** | | | |
| Very good or excellent | 38.5% | 64.6% | -26.1 ** |
| Good | 33.0% | 24.3% | 8.8 ** |
| Fair or poor | 28.5% | 11.1% | 17.4 ** |
| **Has a health condition** [a] | 69.9% | 52.0% | 17.8 ** |
| **Activities are limited by health problem** | 39.2% | 17.6% | 21.6 ** |
| **Family income relative to the federal poverty level (FPL)** | | | |
| Less than 100% of FPL | 19.3% | 18.8% | 0.5 |
| 100-299% of FPL | 48.0% | 22.8% | 25.2 ** |
| 300-499% of FPL | 18.2% | 21.0% | -2.8 |
| 500% of FPL or more | 14.5% | 37.4% | -22.9 ** |
| **Health insurance coverage over the past 12 months** | | | |
| Always insured | 73.5% | 91.1% | -17.6 ** |
| Part-year insured/part-year uninsured | 20.3% | 6.8% | 13.6 ** |
| Always uninsured | 6.2% | 2.0% | 4.2 |
| **Current health insurance coverage** | | | |
| Employer-sponsored insurance | 48.1% | 67.0% | -18.9 ** |
| Public or other coverage | 38.5% | 29.5% | 9.0 * |
| Uninsured | 13.4% | 3.6% | 9.9 ** |
| **Region** | | | |
| Boston | 11.7% | 11.8% | 0.0 |
| Metro West | 28.4% | 35.2% | -6.8 * |
| Northeast | 10.4% | 11.3% | -1.0 |
| Central | 13.1% | 12.2% | 0.9 |
| West | 15.5% | 11.5% | 4.0 |
| Southeast | 20.9% | 18.1% | 2.9 |

Source: 2012 Massachusetts Health Reform Survey (N=3,076).
Notes: These are simple (unadjusted) estimates.
*(**) Significantly different from zero at the .05 (.01) level, two-tailed test.
[a] Includes adults who report they have ever been told by a doctor or other health professional that they have at least one of the following: hypertension or high blood pressure; heart disease or congestive heart failure; diabetes; asthma; any other chronic or long-term health condition or health problem; or are pregnant.

**Unmet need for care because of costs.** As was true of adults with problems paying medical bills, adults with unmet need because of costs were more likely than those without such unmet need to have health issues and to have few economic resources, including insurance coverage (Exhibit V.5). Of particular concern, adults with unmet need because of costs reported poorer health status, were more likely to report a health condition, and were more likely to report an activity limitation because of a health problem, suggesting gaps in health care access for particularly vulnerable adults.

**EXHIBIT V.5: CHARACTERISTICS OF ADULTS 19 TO 64 IN MASSACHUSETTS, BY WHETHER HAD UNMET NEED FOR HEALTH CARE BECAUSE OF COSTS, FALL 2012**

| | ADULTS WITH UNMET NEED FOR HEALTH CARE BECAUSE OF COSTS | ADULTS WITH NO UNMET NEED FOR HEALTH CARE BECAUSE OF COSTS | DIFFERENCE |
|---|---|---|---|
| **Age** | | | |
| 19 to 25 years | 16.0% | 17.7% | -1.7 |
| 26 to 34 years | 21.3% | 15.4% | 5.9 |
| 35 to 49 years | 33.2% | 33.8% | -0.6 |
| 50 to 64 years | 29.5% | 33.1% | -3.6 |
| **Race/ethnicity** | | | |
| White, non-Hispanic | 72.7% | 76.5% | -3.8 |
| Non-white, non-Hispanic | 10.9% | 14.2% | -3.3 |
| Hispanic | 16.4% | 9.3% | 7.1 * |
| **Female** | 60.4% | 49.3% | 11.1 ** |
| **U.S. citizen** | 93.1% | 93.1% | -0.1 |
| **Marital status** | | | |
| Married | 37.0% | 54.2% | -17.1 ** |
| Living with partner | 9.5% | 6.6% | 2.9 |
| Divorced, separated, widowed | 18.0% | 9.3% | 8.6 ** |
| Never married | 35.5% | 29.9% | 5.6 |
| **Parent of one or more children under 18** | 37.4% | 39.9% | -2.5 |
| **Education** | | | |
| Less than high school | 12.3% | 6.6% | 5.7 * |
| High school graduate (includes some college) | 64.2% | 47.0% | 17.2 ** |
| College graduate or higher | 23.5% | 46.4% | -22.8 ** |
| **Work status** | | | |
| Full-time | 37.2% | 53.8% | -16.5 ** |
| Part-time | 19.9% | 18.8% | 1.1 |
| Not working | 42.8% | 27.5% | 15.4 ** |
| **Self-employed** | 9.6% | 10.3% | -0.7 |
| **Works at a firm with fewer than 51 employees** | 21.0% | 15.5% | 5.4 |
| **Self-reported health status** | | | |
| Very good or excellent | 39.3% | 64.1% | -24.8 ** |
| Good | 33.3% | 24.4% | 8.9 ** |
| Fair or poor | 27.5% | 11.5% | 16.0 ** |
| **Has a health condition [a]** | 69.4% | 52.4% | 17.0 ** |
| **Activities are limited by health problem** | 41.4% | 17.5% | 23.9 ** |
| **Family income relative to the federal poverty level (FPL)** | | | |
| Less than 100% of FPL | 31.1% | 16.5% | 14.5 ** |
| 100-299% of FPL | 38.7% | 25.0% | 13.6 ** |
| 300-499% of FPL | 13.8% | 21.8% | -8.0 ** |
| 500% of FPL or more | 16.4% | 36.6% | -20.1 ** |

(continued)

**EXHIBIT V.5:** (CONTINUED)

| | ADULTS WITH UNMET NEED FOR HEALTH CARE BECAUSE OF COSTS | ADULTS WITH NO UNMET NEED FOR HEALTH CARE BECAUSE OF COSTS | DIFFERENCE |
|---|---|---|---|
| **Health insurance coverage over the past 12 months** | | | |
| Always insured | 74.4% | 90.6% | -16.2 ** |
| Part-year insured/part-year uninsured | 18.6% | 7.4% | 11.2 ** |
| Always uninsured | 7.0% | 1.9% | 5.1 |
| **Current health insurance coverage** | | | |
| Employer-sponsored insurance | 39.0% | 68.5% | -29.5 ** |
| Public or other coverage | 49.3% | 27.4% | 21.9 ** |
| Uninsured | 11.7% | 4.1% | 7.5 * |
| **Region** | | | |
| Boston | 14.2% | 11.3% | 2.9 |
| Metro West | 31.3% | 34.6% | -3.2 |
| Northeast | 8.4% | 11.7% | -3.3 * |
| Central | 12.1% | 12.3% | -0.2 |
| West | 15.3% | 11.6% | 3.8 * |
| Southeast | 18.6% | 18.6% | 0.1 |

Source: 2012 Massachusetts Health Reform Survey (N=3,076).
Notes: These are simple (unadjusted) estimates.
*(**) Significantly different from zero at the .05 (.01) level, two-tailed test.
[a] Includes adults who report they have ever been told by a doctor or other health professional that they have at least one of the following: hypertension or high blood pressure; heart disease or congestive heart failure; diabetes; asthma; any other chronic or long-term health condition or health problem; or are pregnant.

**Underinsurance.** Health insurance coverage is intended to protect individuals from financial trouble in the event of a serious illness or injury. Limited benefits and high cost sharing under health plans place more of the financial burden of high health care costs on the individual. While individuals with higher incomes may have the resources to cover the cost of a health crisis, lower- and moderate-income individuals may find themselves in financial difficulties if the cost of the care they need exceeds the coverage under their health plan. Similarly, individuals with health problems are at greater financial risk if they are underinsured, given their higher expected health care costs.

A complete assessment of the adequacy of insurance coverage requires detailed information on the coverage and cost-sharing provisions of the individual's health insurance plan. Given the data available in the MHRS over time, we are limited to a narrower focus that considers the individual's out-of-pocket health care costs. High out-of-pocket costs provide a conservative, lower-bound estimate of underinsurance, as out-of-pocket costs capture inadequate insurance coverage only for those who had high health care costs in the last year. This measure of underinsurance does not include any of the individuals with similar health insurance coverage who did not have high health care costs during the year.

We define an individual as being at risk of underinsurance if he or she had health insurance coverage for the full year and had high health care costs that were not covered by his or her health plan. The definition of "high" out-of-pocket health care costs is somewhat arbitrary. We follow the approach of C. Schoen and colleagues in defining underinsurance as having out-of-pocket health care costs of 5.0 percent or more of family income for those with family income of less than 200 percent of the FPL or 10.0 percent or more of family income for individuals with family income above that level.[46,47] The lower threshold for lower-income individuals is consistent with the cost-sharing provisions of the Children's Health Insurance Program (CHIP).

Exhibit V.6 examines the extent of underinsurance among insured nonelderly adults in Massachusetts over time. The focus is on adults who had insurance coverage for the full year. As shown, 13.4 percent of nonelderly adults in Massachusetts who were insured for the full year were underinsured in 2012—a level that was not significantly different from the level of underinsurance in 2006.[48] Thus, despite increases in health care costs over the 2006 to 2012 period, the problem of underinsurance (insofar as it is measured here) did not worsen.

**EXHIBIT V.6: REGRESSION-ADJUSTED TRENDS IN UNDERINSURANCE AMONG FULL-YEAR INSURED ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2012**

| | FALL 2006 | FALL 2008 | FALL 2010 | FALL 2012 |
|---|---|---|---|---|
| **All full-year insured adults** | | | | |
| Insured all year, not underinsured | 87.8% | 87.2% | 87.9% | 86.6% |
| Insured all year, underinsured | 12.2% | 12.8% | 12.1% | 13.4% |
| **Full-year insured adults with a health problem** | | | | |
| Insured all year, not underinsured | 83.0% | 84.5% | 83.5% | 82.8% |
| Insured all year, underinsured | 17.0% | 15.5% | 16.5% | 17.2% |

Source: 2006-2012 Massachusetts Health Reform Survey (N=10,604 for full year insured adults; N=6,831 for full-year insured adults with a health problem).
Notes: The regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, whether the individual has a chronic health condition 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 2012 sample would have had if they had been observed in the preceding study years.
*(**) Value is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) In 2010 and 2012, value is significantly different from the value two years prior at the .05 (.01) level, two-tailed test.

Among adults with a health problem, defined as either a physical, mental, or emotional problem that limits the kind or amount of work the individual can do or a report of poor or fair health

46 See, for example, Schoen C, Doty MM, Robertson RH. and Collins SR. "Affordable Care Act Reforms Could Reduce the Number of Uninsured US Adults by 70 Percent." *Health Affairs*, 30(9): 1762-1771, 2011.

47 The MHRS obtains information on family income in poverty ranges (that is, income of less 100 percent of the FPL, income of 100 to 149 percent of the FPL, etc.). In order to provide a conservative estimate of underinsurance, out-of-pocket costs relative to income are calculated using the maximum income level in the individual's reported income range based on the categories available in 2006. For a small number of adults who are in the highest income group (income at or above 500 percent of the FPL), it is not possible to determine whether they have out-of-pocket health care costs of 10 percent or more of family income. For this analysis, we assume that individuals with income at or above 500 percent of the FPL are not underinsured.

48 This estimate is lower than that reported for the nation as a whole, which was estimated to be 16.0 percent in 2012 based on Collins S, Robertson R, Garber T, and Doty MM. *Insuring the Future: Current Trends in Health Coverage and the Effects of Implementing the Affordable Care Act.* New York, NY: Commonwealth Fund, 2012, http://www.commonwealthfund.org/Publications/Fund-Reports/2013/Apr/Insuring-the-Future.aspx. However, the national measure of underinsurance differs from that used here. While both surveys define underinsured as having out-of-pocket health care costs of 5 percent or more of family income for those with family income of less than 200 percent of the FPL or 10 percent or more of family income for individuals with family income above that level, Collins et al. also includes deductibles of 5 percent or more of income as part of their definition.

status, the underinsurance level in Massachusetts was higher, at 17.2 percent, in 2012. As with the overall population of nonelderly adults, the level of underinsurance reported for this group between 2006 and 2012 did not change.

**Adults who are underinsured.** In this section, we focus on the characteristics and circumstances of the insured adults who were identified as underinsured, as compared with the adults who were not identified as underinsured. We combine MHRS data for 2010 and 2012 to increase the sample size available for this analysis.

**EXHIBIT V.7: CHARACTERISTICS OF ADULTS 19 TO 64 IN MASSACHUSETTS WITH HEALTH INSURANCE FOR PAST 12 MONTHS, BY WHETHER UNDERINSURED OVER THE PAST YEAR, FALL 2010 AND FALL 2012**

| | ADULTS WHO WERE UNDERINSURED OVER THE PAST YEAR | ADULTS WHO WERE NOT UNDERINSURED OVER THE PAST YEAR | DIFFERENCE |
|---|---|---|---|
| **Age** | | | |
| 19 to 25 years | 25.5% | 13.9% | 11.6 ** |
| 26 to 34 years | 10.9% | 16.1% | -5.2 * |
| 35 to 49 years | 26.0% | 37.1% | -11.1 ** |
| 50 to 64 years | 37.6% | 32.9% | 4.7 |
| **Race/ethnicity** | | | |
| White, non-Hispanic | 73.2% | 79.9% | -6.8 ** |
| Non-white, non-Hispanic | 13.3% | 12.6% | 0.7 |
| Hispanic | 13.5% | 7.4% | 6.1 ** |
| **Female** | 61.2% | 51.3% | 9.9 ** |
| **U.S. citizen** | 93.6% | 93.7% | -0.1 |
| **Marital status** | | | |
| Married | 34.8% | 58.0% | -23.2 ** |
| Living with partner | 7.9% | 7.0% | 1.0 |
| Divorced, separated, widowed | 18.2% | 10.8% | 7.4 ** |
| Never married | 39.0% | 24.2% | 14.8 ** |
| **Parent of one or more children under 18** | 31.3% | 42.0% | -10.6 ** |
| **Education** | | | |
| Less than high school | 15.6% | 6.6% | 9.0 ** |
| High school graduate (includes some college) | 62.0% | 46.4% | 15.6 ** |
| College graduate or higher | 22.5% | 47.0% | -24.6 ** |
| **Work status** | | | |
| Full-time | 27.9% | 55.8% | -27.8 ** |
| Part-time | 22.1% | 17.7% | 4.4 |
| Not working | 50.0% | 26.6% | 23.4 ** |
| **Self-employed** | 8.7% | 9.6% | -0.9 |
| **Works at a firm with fewer than 51 employees** | 15.8% | 14.9% | 0.9 |
| **Self-reported health status** | | | |
| Very good or excellent | 36.6% | 65.2% | -28.6 ** |
| Good | 32.4% | 22.9% | 9.5 ** |
| Fair or poor | 31.0% | 11.8% | 19.1 ** |

(continued)

**EXHIBIT V.7:** (CONTINUED)

| | ADULTS WHO WERE UNDERINSURED OVER THE PAST YEAR | ADULTS WHO WERE NOT UNDERINSURED OVER THE PAST YEAR | DIFFERENCE |
|---|---|---|---|
| **Has a health condition [a]** | 73.5% | 51.8% | 21.7 ** |
| **Activities are limited by health problem** | 47.5% | 17.3% | 30.2 ** |
| **Family income relative to the federal poverty level (FPL)** | | | |
| Less than 100% of FPL | 44.4% | 12.8% | 31.6 ** |
| 100-299% of FPL | 48.7% | 23.5% | 25.2 ** |
| 300-499% of FPL | 5.5% | 24.0% | -18.5 ** |
| 500% of FPL or more | 1.4% | 39.7% | -38.3 ** |
| **Current insurance coverage** | | | |
| Employer-sponsored insurance | 45.2% | 74.2% | -29.0 ** |
| Public or other coverage | 54.8% | 25.8% | 29.0 ** |
| **Region** | | | |
| Boston | 12.0% | 11.0% | 1.0 |
| Metro West | 27.0% | 34.5% | -7.5 * |
| Northeast | 12.5% | 11.2% | 1.3 |
| Central | 12.5% | 12.5% | 0.0 |
| West | 13.7% | 12.4% | 1.4 |
| Southeast | 22.2% | 18.4% | 3.8 |

Source: 2010-2012 Massachusetts Health Reform Survey (N=5,278).
Notes: These are simple (unadjusted) estimates.
*(**) Significantly different from zero at the .05 (.01) level, two-tailed test.
[a] Includes adults who report they have ever been told by a doctor or other health professional that they have at least one of the following: hypertension or high blood pressure; heart disease or congestive heart failure; diabetes; asthma; any other chronic or long-term health condition or health problem; or are pregnant.

Relative to the insured adults who were not identified as underinsured in 2010/2012, the underinsured adults reported more health issues and fewer economic resources (Exhibit V.7). In particular, the underinsured adults were more likely to be female (61.2 versus 51.3 percent), to report their health status as fair or poor (31.0 percent versus 11.8 percent), to report that they had a health condition (73.5 versus 51.8 percent), and to report that their activities were limited by a health problem (47.5 percent versus 17.3 percent). As would be expected for a population with poorer health status, the underinsured were also more likely to have used health care over the past year (Exhibit V.8). For example, these adults were more likely to report doctor visits (including multiple doctor visits) and visits to specialists, ED visits (including multiple ED visits), and hospital stays. Additionally, underinsured adults were more likely to have their most recent ED visit be for a non-emergency condition than were those who were adequately insured (23.1 percent versus 12.2 percent). Given that the definition of underinsurance used here is limited to those who had high health care expenditures, it is not surprising that those defined as underinsured had higher health care needs and use.

**EXHIBIT V.8: HEALTH CARE ACCESS AND USE FOR ADULTS 19 TO 64 IN MASSACHUSETTS WITH HEALTH INSURANCE FOR PAST 12 MONTHS, BY WHETHER UNDERINSURED OVER THE PAST YEAR, FALL 2010 AND FALL 2012**

| | ADULTS WHO WERE UNDERINSURED OVER THE PAST YEAR | ADULTS WHO WERE NOT UNDERINSURED OVER THE PAST YEAR | DIFFERENCE |
|---|---|---|---|
| **Has a usual source of care (excluding the emergency department [ED])** | 91.5% | 92.1% | -0.6 |
| Usual source of care is doctor's office or private clinic | 63.9% | 72.5% | -8.6 ** |
| **Any general doctor visit in past 12 months** | 88.8% | 84.3% | 4.5 * |
| Visit for preventive care | 82.8% | 77.8% | 5.0 |
| Multiple doctor visits | 85.0% | 70.1% | 14.9 ** |
| **Any specialist visit in past 12 months** | 67.7% | 53.0% | 14.7 ** |
| **Any dental care visit in past 12 months** | 65.0% | 75.1% | -10.0 ** |
| **Saw a nurse practitioner, physician assistant, or midwife rather than a general doctor for health care visit** | 46.6% | 37.7% | 8.9 ** |
| **Any hospital stay in the past 12 months (excluding for birth)** | 19.1% | 9.3% | 9.8 ** |
| **Took any prescription drugs in past 12 months** | 75.5% | 59.1% | 16.4 ** |
| **Any ED visits in past 12 months** | 53.1% | 29.3% | 23.8 ** |
| Three or more ED visits | 19.5% | 6.9% | 12.5 ** |
| Most recent ED visit was for non-emergency condition [a] | 23.1% | 12.2% | 10.9 ** |
| Any ED visit related to a chronic health condition in the past 12 months | 13.3% | 5.0% | 8.2 ** |
| **Among those who used care in the past 12 months, share rating quality of care as very good or excellent** | 62.7% | 73.1% | -10.4 ** |

Source: 2010-2012 Massachusetts Health Reform Survey (N=5,278).
Notes: These are simple (unadjusted) estimates.
*(**) Significantly different from zero 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.

The underinsured adults reported substantially lower incomes than did the adults who were not identified as underinsured (44.4 versus 12.8 percent with income of less than 100 percent of the FPL), and were much more likely to have public or other coverage (54.8 versus 24.8 percent) (Exhibit V.7). When asked to rate their insurance coverage, the underinsured adults were less likely to rate their coverage as very good or excellent on any of the dimensions examined, including the range of services available (55.0 versus 65.6 percent) and financial protection against high medical bills (40.4 versus 53.3 percent) (Exhibit V.9). They were also more likely to report problems with their coverage on each of the dimensions examined, including having medical bills for services not covered by their plan (28.3 versus 16.3 percent) and being charged a lot more than health insurance would pay and having to pay the difference (21.1 versus 15.4 percent).

**EXHIBIT V.9: CHARACTERISTICS OF SCOPE OF HEALTH INSURANCE COVERAGE OF ADULTS 19 TO 64 IN MASSACHUSETTS WITH HEALTH INSURANCE FOR PAST 12 MONTHS, BY WHETHER UNDERINSURED OVER THE PAST YEAR, FALL 2010 AND FALL 2012**

| | ADULTS WHO WERE UNDERINSURED OVER THE PAST YEAR | ADULTS WHO WERE NOT UNDERINSURED OVER THE PAST YEAR | DIFFERENCE |
|---|---|---|---|
| **Individual rates health plan as very good or excellent** | | | |
| Range of services available | 55.0% | 65.6% | -10.6 ** |
| Choice of doctors and other providers | 59.4% | 67.3% | -7.9 ** |
| Quality of care available | 54.7% | 67.4% | -12.6 ** |
| Location of doctors and other providers | 55.4% | 68.4% | -13.0 ** |
| Ability to get specialist care | 50.4% | 65.6% | -15.2 ** |
| Financial protection against high medical bills | 40.4% | 53.3% | -12.9 ** |
| **Problems with health coverage in past 12 months** | 54.8% | 38.9% | 15.9 ** |
| Had expensive medical bills for services not covered by plan | 28.3% | 16.3% | 11.9 ** |
| Doctor charged a lot more than health insurance would pay and individual had to pay the difference | 21.1% | 15.4% | 5.7 * |
| Had to contact health insurance company because bill was not paid promptly or payment was denied | 29.1% | 21.5% | 7.6 ** |
| Doctor's office did not accept individual's type of health insurance | 26.0% | 12.9% | 13.1 ** |

Source: 2010-2012 Massachusetts Health Reform Survey (N=5,278).
Notes: These are simple (unadjusted) estimates.
*(**) Significantly different from zero at the .05 (.01) level, two-tailed test.

Not surprisingly, the underinsured adults reported a range of problems with health care affordability and reported experiencing these to a greater degree than those who were not underinsured. As shown in Exhibit V.10, nearly two-thirds (63.6 percent) of underinsured adults reported that health care spending had been a problem in the past year, leading some to go without needed care (24.8 percent), to have problems paying medical bills (34.1 percent), and to incur medical debt (32.3 percent). Many were worried about their ability to pay medical bills in the future, including 32.3 percent who were very worried.

**EXHIBIT V.10: PREVALENCE OF PROBLEMS WITH HEALTH CARE AFFORDABILITY FOR ADULTS 19 TO 64 IN MASSACHUSETTS WITH HEALTH INSURANCE FOR PAST 12 MONTHS, BY WHETHER UNDERINSURED OVER THE PAST YEAR, FALL 2010 AND FALL 2012**

| | ADULTS WHO WERE UNDERINSURED OVER THE PAST YEAR | ADULTS WHO WERE NOT UNDERINSURED OVER THE PAST YEAR | DIFFERENCE |
|---|---|---|---|
| **Health care costs were a problem in the past year** | 63.6% | 35.6% | 28.0 ** |
| Went without needed health care because of cost | 24.8% | 11.0% | 13.8 ** |
| Health care spending caused financial problems | 50.5% | 22.5% | 28.0 ** |
| Had problems paying medical bills | 34.1% | 13.2% | 20.9 ** |
| Have medical bills that are paying off over time | 32.3% | 17.0% | 15.3 ** |

(continued)

**EXHIBIT V.10:** (CONTINUED)

| | ADULTS WHO WERE UNDERINSURED OVER THE PAST YEAR | ADULTS WHO WERE NOT UNDERINSURED OVER THE PAST YEAR | DIFFERENCE |
|---|---|---|---|
| **Among those who went without needed health care because of cost, did not get** | | | |
| Doctor care | 3.5% | 1.5% | 2.1 * |
| Specialist care | 3.7% | 1.2% | 2.5 * |
| Medical tests, treatment, or follow-up care | 5.7% | 2.3% | 3.4 * |
| Preventive care screening | 2.8% | 0.8% | 2.0 * |
| Prescription drugs | 11.8% | 4.1% | 7.8 ** |
| Dental care | 15.5% | 6.3% | 9.1 ** |
| **Among those for whom health care spending caused financial problems, strategies for addressing those financial problems** | | | |
| Cut back on health care | 60.3% | 47.5% | 12.8 ** |
| Cut back on other spending | 90.6% | 86.6% | 4.0 |
| Cut back on saving or took money from savings | 80.7% | 76.2% | 4.5 |
| Increased work hours or took another job | 34.5% | 35.6% | -1.1 |
| Borrowed or took on credit card debt | 52.6% | 37.3% | 15.4 ** |
| Declared bankruptcy | 3.5% | 3.7% | -0.1 |
| **Among those with problems paying medical bills, reason for care that generated those bills** | | | |
| Birth of a child | 6.9% | 4.7% | 2.2 |
| Ongoing treatment for chronic health condition or long-term health problem | 53.1% | 44.1% | 9.0 |
| Medical test or surgical procedure | 57.5% | 52.8% | 4.8 |
| Emergency care | 52.8% | 47.9% | 4.9 |
| Dental care | 31.8% | 33.1% | -1.3 |
| Prescription drugs | 52.5% | 40.2% | 12.3 * |
| **Among those paying off medical bills over time, amount of medical debt** | | | |
| Less than $2,000 | 51.1% | 59.6% | -8.6 |
| $2,000 to $9,999 | 42.3% | 35.2% | 7.1 |
| $10,000 or more | 6.7% | 5.2% | 1.5 |
| **Among those paying off medical bills over time, year problems paying medical bills began** | | | |
| Within the last year | 48.1% | 52.6% | -4.4 |
| 1 or more years ago | 51.9% | 47.4% | 4.4 |
| 5 or more years ago | 6.2% | 6.3% | -0.1 |
| **Worried about being able to pay medical bills in the future** | | | |
| Very worried | 32.3% | 19.3% | 13.0 ** |
| Somewhat worried | 30.9% | 34.0% | -3.2 |
| Not at all worried | 36.9% | 46.7% | -9.8 * |
| **Among those paying off medical bills over time, share contacted by a collection agency in past year** | 44.2% | 44.6% | -0.4 |

Source: 2010-2012 Massachusetts Health Reform Survey (N=5,278).
Notes: These are simple (unadjusted) estimates. Estimates may not add up to 100% due to rounding.
*(**) Significantly different from zero at the .05 (.01) level, two-tailed test.

While such concerns were less common among insured adults who were not identified as underinsured, more than one-third of those adults (35.6 percent) also reported that health care spending had been a problem for them in the past year and nearly one in five (19.3 percent) reported that they were "very worried" about being able to pay medical bills in the future.

The responses to the problems caused by health care costs were generally very similar for the adults who were identified as underinsured and other insured adults, although the underinsured adults were more likely to report that they cut back on health care spending and borrowed or took on credit card debt to pay for care. On the whole, the sources of medical bills, scope of medical debt, and experiences with collection agencies were similar for the underinsured adults and the other insured adults who did not meet the definition used here for underinsurance.

**Financial problems due to health care costs.** The burden of high health care costs affects the overall financial outlook of many Massachusetts families. In 2012, more than one-quarter (27.0 percent) of nonelderly adults in Massachusetts reported that health care spending in the past year had caused financial problems for their family beyond just the ability to access health care, comparable to the level reported in 2010 (28.9 percent) (data not shown). The adults facing such financial problems reported employing a range of strategies to address those problems (Exhibits V.11 and V.12). Most of the adults reported cutting back on non-health-related spending (89.0 percent) and cutting back on savings or taking money from savings (77.0 percent). Many also reported cutting back on health care use (57.2 percent). Some (39.2 percent) increased work hours or took on another job, while others borrowed or took on credit card debt (42.7 percent). A small but significant share of the adults (4.8 percent) reported that they had declared bankruptcy as a result of financial problems caused by health care spending.

**EXHIBIT V.11: PREVALENCE OF PROBLEMS WITH HEALTH CARE AFFORDABILITY FOR ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2012**

| | FALL 2012 |
|---|---|
| **Health care costs were a problem in the past year** | 42.5% |
| Went without needed health care because of cost | 16.4% |
| Health care spending caused financial problems | 27.0% |
| Had problems paying medical bills | 17.9% |
| Have medical bills that are paying off over time | 20.3% |
| **Among those who went without needed health care because of cost, did not get** | |
| Doctor care | 3.2% |
| Specialist care | 2.0% |
| Medical tests, treatment, or follow-up care | 3.8% |
| Preventive care screening | 1.9% |
| Prescription drugs | 7.3% |
| Dental care | 10.2% |
| **Among those for whom health care spending caused financial problems, strategies for addressing those financial problems** | |
| Cut back on health care | 57.2% |
| Cut back on other spending | 89.0% |

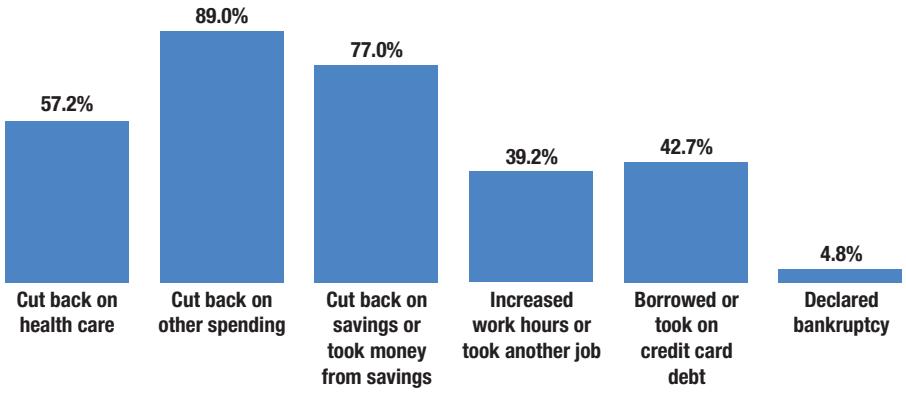
(continued)

**EXHIBIT V.11:** (CONTINUED)

| | FALL 2012 |
|---|---|
| Cut back on saving or took money from savings | 77.0% |
| Increased work hours or took another job | 39.2% |
| Borrowed or took on credit card debt | 42.7% |
| Declared bankruptcy | 4.8% |
| **Among those with problems paying medical bills, reason for care that generated those bills** | |
| Birth of a child | 5.1% |
| Ongoing treatment for chronic health condition or long-term health problem | 49.6% |
| Medical test or surgical procedure | 61.7% |
| Emergency care | 53.1% |
| Dental care | 32.8% |
| Prescription drugs | 42.6% |
| **Among those paying medical bills off over time, amount of medical debt** | |
| Less than $2,000 | 59.4% |
| $2,000 to $9,999 | 34.7% |
| $10,000 or more | 6.0% |
| **Among those paying medical bills off over time, year problems paying medical bills began** | |
| Within the last year | 50.3% |
| 1 or more years ago | 49.7% |
| 5 or more years ago | 4.1% |
| **Worry about being able to pay medical bills in the future** | |
| Very worried | 24.3% |
| Somewhat worried | 33.5% |
| Not at all worried | 42.2% |
| **Among those paying medical bills off over time, share contacted by a collection agency in past year** | 46.3% |

Source: 2012 Massachusetts Health Reform Survey (N=3,076).
Note: These are simple (unadjusted) estimates.

**EXHIBIT V.12: REPORTED STRATEGIES TO ADDRESS FINANCIAL PROBLEMS CAUSED BY HEALTH CARE SPENDING FOR ADULTS 19 TO 64 IN MASSACHUSETTS WITH FINANCIAL PROBLEMS CAUSED BY HEALTH CARE SPENDING, FALL 2012**




Source: 2012 Massachusetts Health Reform Survey (N=919).
Note: These are simple (unadjusted) estimates.

**Adults with medical debt.** Medical debt is a problem for many nonelderly adults in Massachusetts. As was reported in Exhibit V.1, in 2012 one in five (20.3 percent) nonelderly adults in Massachusetts reported having medical bills that were being paid off over time. About half of the adults with medical debt reported that they their problems paying medical bills had begun a year or more ago, with a small share (4.1 percent) reporting problems for five years or more. The majority of the adults with medical debt (59.4 percent) owed less than $2,000; however, 6.0 percent reported owing $10,000 or more. In this section, we focus on the characteristics and circumstances of the adults who reported problems with medical debt, as compared with the adults who did not report medical debt. We combine MHRS data for 2010 and 2012 to increase the sample size available for this analysis.

Exhibit V.13 compares the adults who had medical debt with those who did not report medical debt in 2010/2012. Adults with medical debt were more likely to report their health status as fair or poor (19.8 percent versus 12.7 percent), report that they had a health condition (61.1 versus 51.7 percent), and report that their activities were limited by a health problem (25.7 percent versus 19.2 percent). As would be expected for a population with poorer health status, the adults with medical debt were also more likely to have used health care over the past year, including inpatient care and ED visits (Exhibit V.14).

**EXHIBIT V.13: CHARACTERISTICS OF ADULTS 19 TO 64 IN MASSACHUSETTS, BY WHETHER PAYING OFF MEDICAL BILLS OVER TIME, FALL 2010 AND FALL 2012**

| | ADULTS WHO REPORTED PAYING OFF MEDICAL BILLS OVER TIME | ADULTS WHO DID NOT REPORT PAYING OFF MEDICAL BILLS OVER TIME | DIFFERENCE |
|---|---|---|---|
| **Age** | | | |
| 19 to 25 years | 12.7% | 18.2% | -5.6 ** |
| 26 to 34 years | 17.3% | 16.7% | 0.6 |
| 35 to 49 years | 38.8% | 33.5% | 5.3 * |
| 50 to 64 years | 31.2% | 31.6% | -0.3 |
| **Race/ethnicity** | | | |
| White, non-Hispanic | 77.7% | 77.5% | 0.2 |
| Non-white, non-Hispanic | 12.7% | 13.3% | -0.6 |
| Hispanic | 9.6% | 9.2% | 0.4 |
| **Female** | 59.5% | 49.0% | 10.5 ** |
| **U.S. citizen** | 94.2% | 92.5% | 1.6 |
| **Marital status** | | | |
| Married | 55.8% | 51.2% | 4.6 * |
| Living with partner | 9.6% | 7.7% | 1.9 |
| Divorced, separated, widowed | 12.3% | 11.4% | 0.9 |
| Never married | 22.3% | 29.7% | -7.4 ** |
| **Parent of one or more children under 18** | 47.5% | 37.5% | 10.0 ** |

(continued)

**EXHIBIT V.13:** (CONTINUED)

| | ADULTS WHO REPORTED PAYING OFF MEDICAL BILLS OVER TIME | ADULTS WHO DID NOT REPORT PAYING OFF MEDICAL BILLS OVER TIME | DIFFERENCE |
|---|---|---|---|
| **Education** | | | |
| Less than high school | 7.4% | 8.0% | -0.5 |
| High school graduate (includes some college) | 61.5% | 47.8% | 13.8 ** |
| College graduate or higher | 31.0% | 44.2% | -13.2 ** |
| **Work status** | | | |
| Full-time | 47.9% | 51.3% | -3.3 |
| Part-time | 21.8% | 18.4% | 3.4 * |
| Not working | 30.3% | 30.3% | 0.0 |
| **Self-employed** | 9.8% | 9.8% | 0.0 |
| **Works at a firm with fewer than 51 employees** | 17.8% | 15.7% | 2.1 |
| **Self-reported health status** | | | |
| Very good or excellent | 51.8% | 63.9% | -12.1 ** |
| Good | 28.4% | 23.4% | 5.0 * |
| Fair or poor | 19.8% | 12.7% | 7.1 ** |
| **Has a health condition** [a] | 61.1% | 51.7% | 9.4 ** |
| **Activities are limited by health problem** | 25.7% | 19.2% | 6.5 ** |
| **Family income relative to the federal poverty level (FPL)** | | | |
| Less than 100% of FPL | 13.0% | 19.0% | -6.0 ** |
| 100-299% of FPL | 38.5% | 26.3% | 12.2 ** |
| 300-499% of FPL | 23.1% | 20.5% | 2.6 |
| 500% of FPL or more | 25.3% | 34.2% | -8.8 ** |
| **Health insurance coverage** | | | |
| Uninsured all year | 3.4% | 2.8% | 0.7 |
| Uninsured part year | 16.7% | 7.4% | 9.3 ** |
| Insured all year | 79.9% | 89.7% | -9.9 ** |
| **Current health insurance coverage** | | | |
| Employer-sponsored insurance | 63.9% | 64.5% | -0.6 |
| Public or other coverage | 27.8% | 30.4% | -2.6 |
| Uninsured | 8.3% | 5.0% | 3.3 * |
| **Region** | | | |
| Boston | 9.4% | 12.2% | -2.8 |
| Metro West | 27.9% | 34.9% | -7.0 ** |
| Northeast | 10.7% | 11.4% | -0.7 |
| Central | 14.1% | 11.5% | 2.6 * |
| West | 13.7% | 12.1% | 1.6 |
| Southeast | 24.2% | 17.8% | 6.4 ** |

Source: 2010-2012 Massachusetts Health Reform Survey (N=6,019).
Notes: These are simple (unadjusted) estimates.
*(**) Significantly different from zero at the .05 (.01) level, two-tailed test.
[a] Includes adults who report they have ever been told by a doctor or other health professional that they have at least one of the following: hypertension or high blood pressure; heart disease or congestive heart failure; diabetes; asthma; any other chronic or long-term health condition or health problem; or are pregnant.

**EXHIBIT V.14: HEALTH CARE ACCESS AND USE FOR ADULTS 19 TO 64 IN MASSACHUSETTS, BY WHETHER PAYING OFF MEDICAL BILLS OVER TIME, FALL 2010 AND FALL 2012**

| | ADULTS WHO REPORTED PAYING OFF MEDICAL BILLS OVER TIME | ADULTS WHO DID NOT REPORT PAYING OFF MEDICAL BILLS OVER TIME | DIFFERENCE |
|---|---|---|---|
| **Has a usual source of care (excluding the emergency department [ED])** | 88.1% | 89.0% | -0.8 |
| Usual source of care is doctor's office or private clinic | 67.1% | 68.2% | -1.1 |
| **Any general doctor visit in past 12 months** | 83.5% | 81.0% | 2.4 |
| Visit for preventive care | 75.3% | 74.9% | 0.3 |
| Multiple doctor visits | 72.8% | 67.4% | 5.4 * |
| **Any specialist visit in past 12 months** | 56.6% | 50.7% | 6.0 ** |
| **Any dental care visit in past 12 months** | 70.2% | 71.0% | -0.8 |
| **Saw a nurse practitioner, physician assistant, or midwife rather than a general doctor for health care visit** | 42.6% | 36.3% | 6.2 ** |
| **Any hospital stay in the past 12 months (excluding for birth)** | 13.6% | 9.5% | 4.1 ** |
| **Took any prescription drugs in past 12 months** | 66.4% | 56.3% | 10.1 ** |
| **Any ED visits in past 12 months** | 44.9% | 28.9% | 16.0 ** |
| Three or more ED visits | 12.3% | 7.0% | 5.3 ** |
| Most recent ED visit was for non-emergency condition [a] | 20.3% | 12.6% | 7.7 ** |
| Any ED visit related to a chronic health condition in the past 12 months | 9.2% | 5.0% | 4.3 ** |
| **Among those who used care in the past 12 months, share rating quality of care as very good or excellent** | 60.6% | 72.5% | -12.0 ** |

Source: 2010-2012 Massachusetts Health Reform Survey (N=6,019).
Notes: These are simple (unadjusted) estimates.
*(**) Significantly different from zero 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.

In terms of their economic circumstances, the adults with medical debt were less likely to be in the lowest income group (13.0 percent with medical debt versus 19.0 percent without such debt among those with income of less than 100 percent of the FPL) and in the highest income group (25.3 versus 34.2 percent among those with income at or above 500 percent of the FPL), suggesting that medical debt is most often a problem for middle-income families. Not surprisingly, adults with medical debt were more likely to have been uninsured at some point over the past 12 months, with 3.4 percent uninsured all year and 16.7 percent uninsured for part of the year.

Medical debt was just one component of the financial challenges facing the adults who were paying off medical bills over time (Exhibit V.15). More than half the adults with medical debt reported that health care spending had caused broader financial problems in the past year (61.3 percent) and that they had problems paying their current medical bills (52.3 percent). Such problems were less common among the adults without medical debt, although many of these adults reported

problems as well; 19.3 percent reported that health care spending had caused financial problems, and 9.4 percent reported problems paying current medical bills.

**EXHIBIT V.15: PREVALENCE OF PROBLEMS WITH HEALTH CARE AFFORDABILITY FOR ADULTS 19 TO 64 IN MASSACHUSETTS, BY WHETHER PAYING OFF MEDICAL BILLS OVER TIME, FALL 2010 AND FALL 2012**

| | ADULTS WHO REPORTED PAYING OFF MEDICAL BILLS OVER TIME | ADULTS WHO DID NOT REPORT PAYING OFF MEDICAL BILLS OVER TIME | DIFFERENCE |
|---|---|---|---|
| **Health care costs were a problem in the past year** | 100.0% | 27.7% | 72.3 ** |
| Health care spending caused financial problems | 61.3% | 19.3% | 42.1 ** |
| Had problems paying medical bills | 52.3% | 9.4% | 43.0 ** |
| **Among those who went without needed health care because of cost, did not get** | | | |
| Doctor care | 8.0% | 2.0% | 6.0 ** |
| Specialist care | 5.4% | 1.6% | 3.7 ** |
| Medical tests, treatment, or follow-up care | 9.6% | 2.3% | 7.3 ** |
| Preventive care screening | 4.6% | 1.5% | 3.1 ** |
| Prescription drugs | 13.3% | 4.1% | 9.2 ** |
| Dental care | 16.6% | 7.2% | 9.4 ** |
| **Among those for whom health care spending caused financial problems, strategies for addressing those financial problems** | | | |
| Cut back on health care | 62.0% | 50.0% | 12.0 ** |
| Cut back on other spending | 91.9% | 84.8% | 7.1 ** |
| Cut back on saving or took money from savings | 84.5% | 71.5% | 13.0 ** |
| Increased work hours or took another job | 47.1% | 32.9% | 14.2 ** |
| Borrowed or took on credit card debt | 54.0% | 33.2% | 20.8 ** |
| Declared bankruptcy | 4.1% | 5.3% | -1.2 |
| **Among those with problems paying medical bills, reason for care that generated those bills** | | | |
| Birth of a child | 5.2% | 4.2% | 1.0 |
| Ongoing treatment for chronic health condition or long-term health problem | 52.8% | 37.6% | 15.1 ** |
| Medical test or surgical procedure | 60.4% | 45.5% | 14.9 ** |
| Emergency care | 55.1% | 46.9% | 8.3 * |
| Dental care | 33.6% | 31.9% | 1.8 |
| Prescription drugs | 39.2% | 47.8% | -8.6 |
| **Worry about being able to pay medical bills in the future** | | | |
| Very worried | 44.0% | 19.4% | 24.6 ** |
| Somewhat worried | 35.5% | 32.9% | 2.7 |
| Not at all worried | 20.5% | 47.7% | -27.2 ** |

Source: 2010-2012 Massachusetts Health Reform Survey (N=6,019).
Notes: These are simple (unadjusted) estimates.
*(**) Significantly different from zero at the .05 (.01) level, two-tailed test.

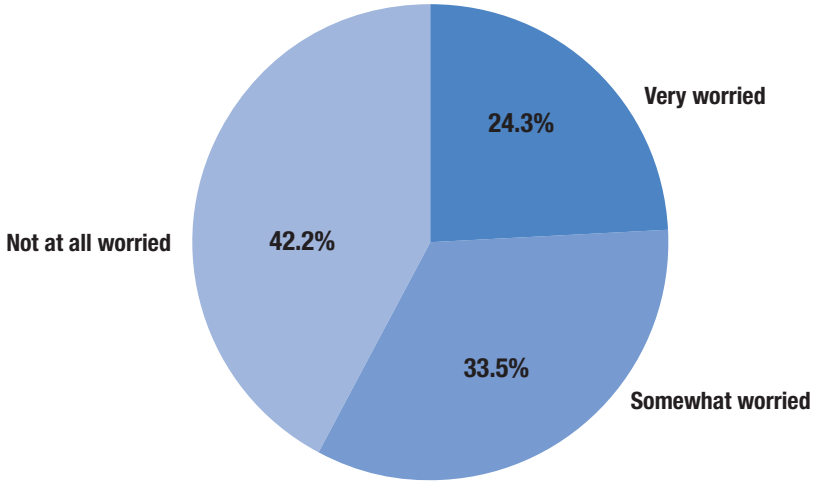
Among the adults who reported that health care spending had caused financial problems, the adults with medical debt reported more frequent use of various strategies to address those problems. Adults with medical debt were more likely to cut back on health care (62.0 percent

versus 50.0 percent), cut back on other spending (91.9 percent versus 84.8 percent), cut back on saving or take money from savings (84.5 percent versus 71.5 percent), and borrow or take on credit card debt (54.0 percent versus 33.2). A small share of both the adults with medical debt and those without such debt reported declaring bankruptcy.

Among the adults with problems paying current medical bills, the adults with medical debt were more likely to report that those problems were due to ongoing treatment for a health condition (52.8 percent versus 37.6 percent), a medical test or surgical procedure (60.4 percent versus 45.5 percent), or emergency care (55.1 percent versus 46.9 percent).

**Worry about affording health care in the future.** In 2012, 24.3 percent of nonelderly adults in Massachusetts reported that they were "very worried" and 33.5 percent reported that they were "somewhat worried" about their ability to pay medical bills in the future if they got sick or had an accident (Exhibit V.16). The remaining adults (42.2 percent) reported that they were "not at all worried" about their ability to afford health care in the future.

**EXHIBIT V.16: WORRY ABOUT ABILITY TO PAY MEDICAL BILLS IN THE FUTURE FOR ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2012**




Source: 2012 Massachusetts Health Reform Survey (N=3,076).
Notes: These are simple (unadjusted) estimates. These estimates exclude a small share of respondents who did not respond to the question.

Similar to the adults who reported problems with the affordability of health care (e.g., medical debt, underinsurance, unmet need) and those who considered cost a major factor in choosing a provider, the adults who were worried about affording health care in the future tended to have fewer economic resources and to have greater health care needs (Exhibit V.17) than those who were not worried. For example, lower-income adults, uninsured adults, and adults who reported a poorer health status or a chronic health condition were more likely to be worried about their ability to pay medical bills in the future.

**EXHIBIT V.17: CHARACTERISTICS OF ADULTS 19 TO 64 IN MASSACHUSETTS, BY WHETHER WORRIED ABOUT ABILITY TO PAY MEDICAL BILLS IN THE FUTURE, FALL 2012**

| | ADULTS WHO WERE WORRIED ABOUT THEIR ABILITY TO PAY MEDICAL BILLS | ADULTS WHO WERE NOT WORRIED ABOUT THEIR ABILITY TO PAY MEDICAL BILLS | DIFFERENCE |
|---|---|---|---|
| **Age** | | | |
| 19 to 25 years | 15.0% | 20.8% | -5.8 * |
| 26 to 34 years | 18.9% | 12.9% | 6.0 ** |
| 35 to 49 years | 35.7% | 31.2% | 4.5 |
| 50 to 64 years | 30.4% | 35.1% | -4.7 * |
| **Race/ethnicity** | | | |
| White, non-Hispanic | 71.1% | 82.3% | -11.2 ** |
| Non-white, non-Hispanic | 15.3% | 11.4% | 3.8 * |
| Hispanic | 13.6% | 6.3% | 7.3 ** |
| **Female** | 53.2% | 48.4% | 4.8 |
| **U.S. citizen** | 90.7% | 96.5% | -5.8 ** |
| **Marital status** | | | |
| Married | 50.7% | 52.3% | -1.6 |
| Living with partner | 8.6% | 4.8% | 3.8 ** |
| Divorced, separated, widowed | 11.7% | 9.5% | 2.2 |
| Never married | 29.0% | 33.4% | -4.4 |
| **Parent of one or more children under 18** | 43.5% | 34.2% | 9.3 ** |
| **Education** | | | |
| Less than high school | 7.9% | 7.0% | 0.8 |
| High school graduate (includes some college) | 53.3% | 45.1% | 8.2 ** |
| College graduate or higher | 38.9% | 47.9% | -9.0 ** |
| **Work status** | | | |
| Full-time | 51.7% | 50.4% | 1.3 |
| Part-time | 20.8% | 16.3% | 4.5 * |
| Not working | 27.5% | 33.3% | -5.8 * |
| **Self-employed** | 10.7% | 9.4% | 1.3 |
| **Works at a firm with fewer than 51 employees** | 19.1% | 12.8% | 6.3 ** |
| **Self-reported health status** | | | |
| Very good or excellent | 54.8% | 67.0% | -12.2 ** |
| Good | 29.4% | 20.9% | 8.5 ** |
| Fair or poor | 15.8% | 12.1% | 3.7 * |
| **Has a health condition [a]** | 57.5% | 52.3% | 5.2 * |
| **Activities are limited by health problem** | 22.1% | 20.5% | 1.7 |
| **Family income relative to the federal poverty level (FPL)** | | | |
| Less than 100% of FPL | 19.0% | 18.8% | 0.2 |
| 100-299% of FPL | 30.3% | 23.0% | 7.3 ** |
| 300-499% of FPL | 23.3% | 16.9% | 6.4 ** |
| 500% of FPL or more | 27.4% | 41.3% | -14.0 ** |

(continued)

**EXHIBIT V.17:** (CONTINUED)

| | ADULTS WHO WERE WORRIED ABOUT THEIR ABILITY TO PAY MEDICAL BILLS | ADULTS WHO WERE NOT WORRIED ABOUT THEIR ABILITY TO PAY MEDICAL BILLS | DIFFERENCE |
|---|---|---|---|
| **Health insurance coverage over the past 12 months** | | | |
| Always insured | 82.8% | 95.1% | -12.3 ** |
| Part-year insured/part-year uninsured | 13.0% | 3.9% | 9.1 ** |
| Always uninsured | 4.1% | 0.8% | 3.4 ** |
| **Current health insurance coverage** | | | |
| Employer-sponsored insurance | 58.4% | 71.1% | -12.7 ** |
| Public or other coverage | 33.9% | 26.9% | 7.0 ** |
| Uninsured | 7.8% | 2.1% | 5.7 ** |
| **Region** | | | |
| Boston | 12.2% | 11.2% | 1.1 |
| Metro West | 32.8% | 35.8% | -3.0 |
| Northeast | 11.4% | 10.7% | 0.6 |
| Central | 11.4% | 13.7% | -2.3 |
| West | 13.0% | 11.2% | 1.8 |
| Southeast | 19.3% | 17.5% | 1.8 |

Source: 2012 Massachusetts Health Reform Survey (N=3,076).
Notes: These are simple (unadjusted) estimates.
*(**) Significantly different from zero at the .05 (.01) level, two-tailed test.
[a] Includes adults who report they have ever been told by a doctor or other health professional that they have at least one of the following: hypertension or high blood pressure; heart disease or congestive heart failure; diabetes; asthma; any other chronic or long-term health condition or health problem; or are pregnant.

# VI. OUTCOMES FOR LOWER-INCOME ADULTS AND ADULTS WITH A CHRONIC CONDITION

## A. LOWER-INCOME ADULTS

Lower-income nonelderly adults with income below 300 percent of the FPL were a target population for many of the elements of Massachusetts' 2006 health reform initiative, given their historically higher level of uninsurance. Earlier work has shown that many of the gains under health reform were concentrated among the state's lower-income adults, including significant gains in coverage, access to and use of care, and the affordability of care.[49] In 2012, lower-income nonelderly adults in Massachusetts continued to report high levels of insurance coverage, with 90.1 percent of the adults reporting insurance coverage in 2012, a share well above the 75.7 percent who were insured in 2006 (Exhibit VI.1). Nearly 80 percent of the lower-income adults (79.2 percent) reported having insurance coverage for the full year in 2012, as compared with only 64.3 percent in 2006.

**EXHIBIT VI.1: REGRESSION-ADJUSTED TRENDS IN HEALTH INSURANCE COVERAGE FOR LOWER-INCOME ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2012**

| | FALL 2006 | FALL 2008 | FALL 2010 | FALL 2012 |
|---|---|---|---|---|
| **Current insurance coverage** | | | | |
| Any insurance coverage | 75.7% | 91.3% ** | 90.1% ** | 90.1% ** |
| • Employer-sponsored insurance coverage | 30.6% | 37.6% ** | 37.0% ** | 34.8% |
| – In own name | 17.8% | 20.5% | 21.8% * | 18.1% ^ |
| – In family member's name | 12.8% | 17.1% * | 15.2% | 16.8% |
| • Public or other coverage | 45.1% | 53.7% ** | 53.1% ** | 55.3% ** |
| Uninsured | 24.3% | 8.7% ** | 9.9% ** | 9.9% ** |
| **Uninsurance over the past 12 months** | | | | |
| Always uninsured | 16.2% | 4.2% ** | 4.9% ** | 4.9% ** |
| Ever uninsured | 35.7% | 19.1% ** | 19.8% ** | 20.8% ** |
| Never uninsured | 64.3% | 80.9% ** | 80.2% ** | 79.2% ** |

Source: 2006-2012 Massachusetts Health Reform Survey (N=6,105).
Notes: Lower-income is defined as having a family income below 300 percent of the federal poverty line. The regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, whether the individual has a chronic health condition 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 2012 sample would have had if they had been observed in the preceding study years.
*(**) Value is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) In 2010 and 2012, value is significantly different from the value two years prior at the .05 (.01) level, two-tailed test.

49 Long SK, Stockley K, and Dahlen H. *Health Reform in Massachusetts as of Fall 2010: Getting Ready for the Affordable Care Act & Addressing Affordability.* Boston, MA: Blue Cross Blue Shield of Massachusetts Foundation, 2012.

As with insurance coverage, access to care for lower-income adults was better in 2012 than in 2006 (Exhibit VI.2). In particular, lower-income adults were more likely in 2012 than in 2006 to have a preventive care visit and a dental visit, and less likely to have multiple ED visits. They were also much more likely in 2012 than in 2006 to rate the care that they did receive as very good or excellent. This was a new positive finding that was not reported in previous years of the survey. Still, in 2012 almost half of the lower-income adults (46.1 percent) reported unmet need for health care over the past 12 months (Exhibit VI.3). Unmet need was most common for dental care (24.9 percent) and prescription drugs (19.4 percent), and was often related to the cost of care. More than half of the lower-income adults with unmet need for care (54.3 percent) reported cost of care as a factor.

**EXHIBIT VI.2: REGRESSION-ADJUSTED TRENDS IN HEALTH CARE ACCESS AND USE FOR LOWER-INCOME ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2012**

| | FALL 2006 | FALL 2008 | FALL 2010 | FALL 2012 |
|---|---|---|---|---|
| **Has a usual source of care (excluding the emergency department [ED])** | 78.9% | 86.5% ** | 84.1% * | 81.5% |
| Usual source of care is doctor's office or private clinic | 46.0% | 53.8% ** | 55.4% ** | 51.8% * |
| **Any general doctor visit in past 12 months** | 75.9% | 79.6% | 78.2% | 78.5% |
| Visit for preventive care | 65.9% | 72.3% ** | 72.7% ** | 71.9% * |
| Multiple doctor visits | 62.9% | 66.6% | 69.0% * | 65.9% |
| **Any specialist visit in past 12 months** | 47.1% | 49.2% | 51.5% | 46.0% ^ |
| **Any dental care visit in past 12 months** | 47.3% | 61.5% ** | 58.7% ** | 59.2% ** |
| **Any hospital stay in the past 12 months (excluding for birth)** | 16.4% | 15.7% | 13.9% | 14.9% |
| **Took any prescription drugs in past 12 months** | 57.7% | 61.5% | 57.8% | 60.7% |
| **Any ED visits in past 12 months** | 49.2% | 49.1% | 46.1% | 45.7% |
| Three or more ED visits | 18.3% | 16.9% | 14.6% | 13.8% * |
| Most recent ED visit was for non-emergency condition [a] | 25.5% | 24.4% | 21.7% | 23.8% |
| **Among those who used care in the past 12 months, share rating quality of care as very good or excellent** | 50.2% | 56.6% * | 56.6% * | 66.0% ** ^^ |

Source: 2006-2012 Massachusetts Health Reform Survey (N=6,105).
Notes: Lower-income is defined as having a family income below 300 percent of the federal poverty line. The regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, whether the individual has a chronic health condition 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 2012 sample would have had if they had been observed in the preceding study years.
*(**) Value is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) In 2010 and 2012, value is significantly different from the value two years prior 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.

**EXHIBIT VI.3: UNMET NEED FOR CARE FOR LOWER-INCOME ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2012**

| | FALL 2012 |
|---|---|
| **Did not get needed care in past 12 months** | 46.1% |
| Doctor care | 12.7% |
| Specialist care | 10.8% |
| Medical tests, treatment, or follow-up care | 13.1% |
| Preventive care screening | 6.9% |
| Prescription drugs | 19.4% |
| Dental care | 24.9% |
| **Among those who did not get needed care in the past 12 months, reasons for not getting care** | |
| Cost of care | 54.3% |
| Trouble finding a provider who would see them | 21.1% |
| Trouble getting an appointment with a provider | 20.8% |
| Difficulty getting to the place of care | 16.1% |
| Hours that care were available were not convenient | 19.5% |

Source: 2012 Massachusetts Health Reform Survey (N=1,351).
Notes: Lower-income is defined having as a family income below 300 percent of the federal poverty line. These are simple (unadjusted) estimates.

Additional evidence of the impacts of health care costs on lower-income adults is reported in Exhibit V1.4. As shown, some of the early gains in health care affordability under reform have eroded over time. In particular, there were no longer any differences in the share of lower-income adults reporting high out-of-pocket health care spending relative to family income in 2012 as compared with 2006. However, some gains were maintained through 2012; lower-income adults were less likely to have problems paying medical bills than they had had in 2006 (26.1 percent versus 31.7 percent).

**EXHIBIT VI.4: REGRESSION-ADJUSTED TRENDS IN HEALTH CARE SPENDING, MEDICAL BILLS, AND MEDICAL DEBT FOR LOWER-INCOME ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2012**

| | FALL 2006 | FALL 2008 | FALL 2010 | FALL 2012 |
|---|---|---|---|---|
| **Out-of-pocket health care spending over the past 12 months relative to family income for those with incomes of less than 500% of the federal poverty level (FPL)[a]** | | | | |
| At 5% or more of family income | 26.3% | 21.0% * | 20.0% ** | 24.5% |
| At 10% or more of family income | 13.8% | 11.0% | 7.9% ** ^ | 11.1% ^ |
| **Had problems paying medical bills in past 12 months** | 31.7% | 25.9% ** | 26.3% * | 26.1% * |
| **Have medical bills that are paying off over time** | 24.6% | 23.2% | 22.3% | 22.0% |
| **Among those paying medical bills over time, amount of medical debt** | | | | |
| Less than $2,000 | 66.0% | 60.6% | 57.6% * | 62.0% |
| $2,000 to $9,999 | 31.1% | 34.1% | 35.0% | 32.4% |
| $10,000 or more | 2.9% | 5.3% | 7.4% | 5.5% |

(continued)

**EXHIBIT VI.4:** (CONTINUED)

| | FALL 2006 | FALL 2008 | FALL 2010 | FALL 2012 |
|---|---|---|---|---|
| **Had problems paying other bills in past 12 months** | 35.4% | 37.9% | 38.9% | 35.4% |
| **Have a health care flexible spending account** | 6.3% | 6.6% | 7.2% | 6.0% |

Source: 2006-2012 Massachusetts Health Reform Survey (N=6,105).
Notes: Lower-income is defined as having a family income below 300 percent of the federal poverty line. The regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, whether the individual has a chronic health condition 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 2012 sample would have had if they had been observed in the preceding study years.
*(**) Value is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) In 2010 and 2012, value is significantly different from the value two years prior at the .05 (.01) level, two-tailed test.
[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.

## B. ADULTS WITH A CHRONIC CONDITION

Access and affordability of care for adults with a chronic health condition (defined as hypertension or high blood pressure, heart disease or congestive heart failure, diabetes, asthma, or any other chronic or long-term health condition or health problem) are important to monitor given the high health care needs of this population. As shown in Exhibit VI.5, nearly all nonelderly adults with a chronic health condition (95.4 percent) reported insurance coverage at the time of the survey in 2012, a share significantly above the 88.2 percent with coverage in 2006. There was also an increase in the share of these adults who were insured all year, up from 81.4 percent in 2006 to 88.3 percent in 2012.

**EXHIBIT VI.5: REGRESSION-ADJUSTED TRENDS IN HEALTH INSURANCE COVERAGE FOR ADULTS 19 TO 64 WITH A CHRONIC HEALTH CONDITION IN MASSACHUSETTS, FALL 2006 TO FALL 2012**

| | FALL 2006 | FALL 2008 | FALL 2010 | FALL 2012 |
|---|---|---|---|---|
| **Current insurance coverage** | | | | |
| Any insurance coverage | 88.2% | 96.1% ** | 94.1% ** ^ | 95.4% ** |
| • Employer-sponsored insurance coverage | 55.7% | 60.1% ** | 57.6% | 57.1% |
| – In own name | 37.0% | 35.9% | 35.6% | 33.8% |
| – In family member's name | 18.7% | 24.2% ** | 22.1% | 23.3% * |
| • Public or other coverage | 32.5% | 36.1% * | 36.4% ** | 38.3% ** |
| Uninsured | 11.8% | 3.9% ** | 5.9% ** ^ | 4.6% ** |
| **Uninsurance over the past 12 months** | | | | |
| Always uninsured | 7.1% | 1.4% ** | 2.8% ** ^ | 2.2% ** |
| Ever uninsured | 18.6% | 10.0% ** | 11.5% ** | 11.7% ** |
| Never uninsured | 81.4% | 90.0% ** | 88.5% ** | 88.3% ** |

Source: 2006-2012 Massachusetts Health Reform Survey (N=7,420).
Notes: A chronic health condition is defined as at least one of the following: hypertension or high blood pressure; heart disease or congestive heart failure; diabetes; asthma; or any other chronic or long-term health condition or health problem. The regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, whether the individual has a specific chronic health condition, 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 2012 sample would have had if they had been observed in the preceding study years.
*(**) Value is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) In 2010 and 2012, value is significantly different from the value two years prior at the .05 (.01) level, two-tailed test.

Similar to the findings for lower-income adults, sustained gains in insurance coverage for adults with a chronic health condition have not translated into sustained gains in access to care (Exhibit VI.6). On many dimensions, access to care for these adults in 2012 had returned to levels that were similar to those in 2006. However, the gains that did persist include increased use of dental care and reductions in hospital stays and multiple ED visits. Further, there was an increase in the share of adults with a chronic condition who rated the quality of the care they received as very good or excellent—up from 62.4 percent in 2006 to 71.8 percent in 2012. Nonetheless, 40.5 percent of these vulnerable adults reported unmet need for care in 2012, including 19.4 percent reporting unmet need for dental care and 17.6 percent reporting unmet need for prescription drugs (Exhibit VI.7). In addition, roughly one in 10 reported unmet need for doctor care, specialist care, and medical tests, treatment or follow-up care, all important elements of care for persons with chronic conditions. The cost of care was the most important reason reported for the unmet need.

**EXHIBIT VI.6: REGRESSION-ADJUSTED TRENDS IN HEALTH CARE ACCESS AND USE FOR ADULTS 19 TO 64 WITH A CHRONIC HEALTH CONDITION IN MASSACHUSETTS, FALL 2006 TO FALL 2012**

| | FALL 2006 | FALL 2008 | FALL 2010 | FALL 2012 |
|---|---|---|---|---|
| **Has a usual source of care (excluding the emergency department [ED])** | 88.5% | 92.9% ** | 90.8% | 90.3% |
| Usual source of care is doctor's office or private clinic | 63.3% | 68.7% ** | 70.2% ** | 67.0% * |
| **Any general doctor visit in past 12 months** | 87.1% | 91.8% ** | 86.3% ^^ | 87.9% |
| Visit for preventive care | 76.9% | 84.4% ** | 80.7% * ^ | 80.4% |
| Multiple doctor visits | 78.6% | 83.5% ** | 80.6% ^ | 79.5% |
| **Any specialist visit in past 12 months** | 61.3% | 65.9% * | 63.6% | 61.2% |
| **Any dental care visit in past 12 months** | 63.0% | 71.6% ** | 70.4% ** | 68.8% * |
| **Any hospital stay in the past 12 months (excluding for birth)** | 19.3% | 16.0% * | 14.6% * | 14.6% ** |
| **Took any prescription drugs in past 12 months** | 77.5% | 81.3% * | 75.9% ^^ | 78.2% |
| **Any ED visits in past 12 months** | 44.8% | 44.8% | 39.8% * ^ | 41.3% |
| Three or more ED visits | 15.8% | 14.3% | 12.0% * | 11.7% * |
| Most recent ED visit was for non-emergency condition [a] | 20.1% | 20.8% | 16.9% ^ | 18.0% |
| **Among those who used care in the past 12 months, share rating quality of care as very good or excellent** | 62.4% | 68.0% * | 65.0% | 71.8% ** ^^ |

Source: 2006-2012 Massachusetts Health Reform Survey (N=7,420).
Notes: A chronic health condition is defined as at least one of the following: hypertension or high blood pressure; heart disease or congestive heart failure; diabetes; asthma; or any other chronic or long-term health condition or health problem. The regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, whether the individual has a specific chronic health condition, 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 2012 sample would have had if they had been observed in the preceding study years.
*(**) Value is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) In 2010 and 2012, value is significantly different from the value two years prior 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.

**EXHIBIT VI.7: UNMET NEED FOR CARE FOR ADULTS 19 TO 64 WITH A CHRONIC HEALTH CONDITION IN MASSACHUSETTS, FALL 2012**

| | FALL 2012 |
|---|---|
| **Did not get needed care in past 12 months** | 40.5% |
| Doctor care | 10.9% |
| Specialist care | 10.2% |
| Medical tests, treatment, or follow-up care | 13.3% |
| Preventive care screening | 7.9% |
| Prescription drugs | 17.6% |
| Dental care | 19.4% |
| **Among those who did not get needed care in the past 12 months, reasons for not getting care** | |
| Cost of care | 52.6% |
| Trouble finding a provider who would see them | 21.3% |
| Trouble getting an appointment with a provider | 22.8% |
| Difficulty getting to the place of care | 17.6% |
| Hours that care were available were not convenient | 20.0% |

Source: 2012 Massachusetts Health Reform Survey (N=1,833).
Notes: A chronic health condition is defined as at least one of the following: hypertension or high blood pressure; heart disease or congestive heart failure; diabetes; asthma; or any other chronic or long-term health condition or health problem. These are simple (unadjusted) estimates.

While health care costs continue to be a factor for many adults with a chronic health condition, many of the gains in health care affordability under health reform for these adults have persisted (Exhibit VI.8). In particular, adults with a chronic condition in 2012 were less likely to have high out-of-pocket spending for health care than was the case in 2006 (10.3 percent versus 14.5 percent) and were less likely to report problems paying medical bills (23.0 percent versus 27.6 percent). Still, in 2012, one-quarter of the adults with a chronic condition reported problems paying medical bills and one-quarter reported that they had medical bills that they were paying off over time, which suggests that affordability of care continues to be an issue for many of these adults.

## EXHIBIT VI.8: REGRESSION-ADJUSTED TRENDS IN HEALTH CARE SPENDING, MEDICAL BILLS, AND MEDICAL DEBT FOR ADULTS 19 TO 64 WITH A CHRONIC HEALTH CONDITION IN MASSACHUSETTS, FALL 2006 TO FALL 2012

| | FALL 2006 | FALL 2008 | FALL 2010 | FALL 2012 |
|---|---|---|---|---|
| **Out-of-pocket health care spending over the past 12 months relative to family income for those with income less than 500% of the federal poverty level (FPL)[a]** | | | | |
| At 5% or more of family income | 30.0% | 22.4% ** | 21.0% ** | 25.3% |
| At 10% or more of family income | 14.5% | 10.3% * | 8.2% ** | 10.3% * |
| **Had problems paying medical bills in past 12 months** | 27.6% | 23.2% * | 22.5% ** | 23.0% * |
| **Have medical bills that are paying off over time** | 23.9% | 22.3% | 21.7% | 23.5% |
| **Among those paying medical bills over time, amount of medical debt** | | | | |
| Less than $2,000 | 62.0% | 57.6% | 58.7% | 57.6% |
| $2,000 to $9,999 | 33.2% | 36.4% | 35.7% | 35.6% |
| $10,000 or more | 4.8% | 6.0% | 5.5% | 6.8% |
| **Had problems paying other bills in past 12 months** | 30.6% | 31.4% | 32.1% | 30.9% |
| **Have a health care flexible spending account** | 10.9% | 16.1% ** | 17.8% ** | 16.9% ** |

Source: 2006-2012 Massachusetts Health Reform Survey (N=7,420).
Notes: A chronic health condition is defined as at least one of the following: hypertension or high blood pressure; heart disease or congestive heart failure; diabetes; asthma; or any other chronic or long-term health condition or health problem. The regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, whether the individual has a specific chronic health condition, 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 2012 sample would have had if they had been observed in the preceding study years.
*(**) Value is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) In 2010 and 2012, value is significantly different from the value two years prior at the .05 (.01) level, two-tailed test.
[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.

# VII. EMPLOYER-SPONSORED HEALTH INSURANCE FROM THE PERSPECTIVE OF WORKERS

This chapter examines trends over time in the availability, cost, and scope of employer-sponsored coverage in Massachusetts, as reported by nonelderly workers in the state—the employees' perspective on their insurance coverage. We focus on workers overall and workers in small firms in particular.

**EXHIBIT VII.1: REGRESSION-ADJUSTED TRENDS IN EMPLOYER-SPONSORED INSURANCE AVAILABILITY AND TAKE-UP FOR WORKERS 19 TO 64 IN MASSACHUSETTS, OVERALL AND IN SMALL FIRMS, FALL 2006 TO FALL 2012**

| | FALL 2006 | FALL 2008 | FALL 2010 | FALL 2012 |
|---|---|---|---|---|
| **All workers** | | | | |
| Worker's employer offers employer-sponsored insurance (ESI) coverage | | | | |
| • Employer offers coverage to any workers | 89.9% | 90.1% | 90.4% | 89.3% |
| • Employer offers coverage to this worker | 78.8% | 81.3% ** | 79.1% | 77.4% |
| Take-up of ESI coverage among workers with an offer from their employer | | | | |
| • Any ESI coverage | 92.6% | 93.9% | 94.1% | 90.9% ^ |
| • ESI coverage from their employer | 76.1% | 72.6% | 73.2% | 68.7% ** |
| • ESI coverage through another family member | 16.5% | 21.3% * | 20.9% * | 22.2% ** |
| **Workers in small firms** | | | | |
| Worker's employer offers ESI coverage | | | | |
| • Employer offers coverage to any workers | 69.3% | 69.2% | 70.8% | 67.7% |
| • Employer offers coverage to this worker | 85.2% | 85.5% | 86.8% | 79.4% ^ |
| Take-up of ESI coverage among workers with an offer from their employer | | | | |
| • Any ESI coverage | 88.9% | 87.8% | 87.4% | 82.0% |
| • ESI coverage from their employer | 65.6% | 62.0% | 62.4% | 59.1% |
| • ESI coverage through another family member | 23.4% | 25.8% | 24.9% | 22.8% |

Source: 2006-2012 Massachusetts Health Reform Survey (N=8,635 all workers; N=1,970 workers in small firms).
Notes: Small firms are defined as having fewer than 51 employees. The regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, whether the individual has a chronic health condition 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 2012 sample would have had if they had been observed in the preceding study years.
^(^^) In 2010 and 2012, value for year is significantly different from the value two years prior at the .05 (.01) level, two-tailed test.

In 2012, 89.3 percent of Massachusetts workers were employed by firms that offered coverage to one or more workers at the firm, and 77.4 percent were employed by a firm that offered coverage to them specifically (Exhibit VII.1).[50] As shown, the overall share of workers in Massachusetts

50 The estimated offer rate, which is based on responses by workers, is generally consistent with the estimate from the Insurance Component of the Medical Expenditure Panel Survey (MEPS-IC), which provides data from a national sample of employers. The MEPS-IC reports that 92.2 percent of private-sector employees in Massachusetts worked for a firm that offered coverage to any worker in 2011. The comparable estimate for the nation as a whole was 85.3 percent. Estimates obtained from the tabulator at www.meps.ahrq.gov/mepsweb/data_stats/MEPSnetIC.jsp. Note that the estimates for the MHRS are for all employees in Massachusetts, including public sector employees.

with an employer who offers coverage has remained steady since prior to health reform in 2006. This trend holds true for workers in small firms (50 or fewer workers) as well. Among workers in small firms, there were no significant changes in the shares reporting that their employer offered coverage to any workers between 2006 and 2012, and no changes in the shares reporting that their employer offered coverage to them specifically.

The share of employees taking up their employer's offer of coverage also remained high in 2012, with 90.9 percent of workers with an ESI offer reporting coverage through an employer. Like the employer offer rate, the employee take-up rate for ESI coverage has changed little relative to 2006. While the overall share of workers taking up ESI coverage has not changed significantly since prior to health reform, there has been a shift in ESI policyholders over time. As the share of workers covered through their own employer has decreased (down by 7.4 percentage points), the share of those covered through the employer of a family member (e.g., a spouse or parent) has increased from 16.5 percent in 2006 to 22.2 percent in 2012.[51] This likely reflects both the impact of the recession and the expansion of dependent coverage under both the Massachusetts reform effort and the ACA.

While the overall rate of employee take-up of ESI is lower in smaller firms, the share of workers in those firms who take up an ESI offer has not changed significantly since 2006. In 2012, roughly four out of five (82.0 percent) of the workers in small firms with an ESI offer reported having ESI coverage. Unlike the situation for all workers, there have been no significant changes between 2006 and 2012 in either the percentage of workers in small firms who are covered through their own employer or covered through the employer of a family member.

**Cost of health insurance to workers.** The cost of health insurance coverage to employees will be reflected in each worker's share of the insurance premium and in their wages. From the Massachusetts Health Reform Survey (MHRS), we have information on the amount of each worker's reported contribution toward premiums; we do not have the information on the overall premium or on the worker's wage.[52] Thus we can only report on one component of the cost of health insurance coverage to workers.

To examine increases in the amount of a worker's contribution toward premiums over time, we focus on changes in the percentage of workers with "high" premiums. We define "high" as a contribution toward a premium relative to the average premium contribution in Massachusetts under two scenarios: 1) a contribution that is 1.5 or more times the average and 2) a contribution that is 2.0 or more times the average. Data from the Insurance Component of the Medical Expenditure Panel Survey (MEPS-IC), a national survey of employers, indicates that in 2006, the average employee contribution toward a premium in Massachusetts was $1,011 for single coverage and $3,128 for family coverage, above the national averages of $788 and $2,890 for single

51 The increase in ESI coverage through a family member in 2012 that was reported in Chapter III reflects increased ESI coverage among nonworkers.

52 Estimates for Massachusetts from the MEPS-IC show no significant change in the average share of the premium paid by workers between 2006 and 2011 for either individual coverage or family coverage. Estimates obtained from the tabulator at www.meps.ahrq.gov/mepsweb/data_stats/MEPSnetIC.jsp. More recent data from the Massachusetts Division of Health Care Finance and Policy's Massachusetts Employer Survey for 2011 show a slight decrease in the worker's share of premiums between 2010 and 2011. See Massachusetts Division of Health Care Finance and Policy. *Massachusetts Health Insurance and Employer Survey Chartbook, Updates for 2011*. Boston, MA: Massachusetts Division of Health Care Finance and Policy, 2013, http://www.mass.gov/chia/docs/r/pubs/13/mhischartpack-1-29-13.pdf.

and family coverage, respectively.[53] By 2011, the average employee contribution to a premium in Massachusetts had increased to $1,438 for single coverage and $4,340 for family coverage. The comparable figures for the nation as a whole were $1,090 and $3,962, respectively. The employee shares of ESI premiums in Massachusetts remain higher than those in the U.S. as a whole and have been increasing more rapidly.

**EXHIBIT VII.2: REGRESSION-ADJUSTED TRENDS IN EMPLOYEE CONTRIBUTIONS TOWARD PREMIUMS FOR WORKERS 19 TO 64 WITH EMPLOYER-SPONSORED INSURANCE COVERAGE IN MASSACHUSETTS, OVERALL AND IN SMALL FIRMS, FALL 2006 TO FALL 2012**

| | FALL 2006 | FALL 2008 | FALL 2010 | FALL 2012 |
|---|---|---|---|---|
| **All workers** | | | | |
| Worker's contribution to employer-sponsored insurance (ESI) coverage relative to average employee contribution to ESI premium in Massachusetts [a] | | | | |
| • At or above the average | 48.3% | 48.4% | 53.0% | 51.7% |
| • At or above 1.5 times the average | 28.0% | 28.3% | 32.0% | 29.8% |
| • At or above 2.0 times the average | 14.9% | 17.3% | 20.4% ** | 18.9% * |
| • Worker's health plan has a deductible greater than $1,000 per person | | 10.3% | 21.0% ^^ | 25.1% |
| • Worker's health plan has a deductible greater than $1,000 per person and includes a health savings account | | 1.6% | 3.8% ^ | 6.0% |
| **Workers in small firms** | | | | |
| Worker's contribution to ESI coverage relative to average employee contribution to ESI premium in Massachusetts [a] | | | | |
| • At or above the average | 42.4% | 48.3% | 46.6% | 46.4% |
| • At or above 1.5 times the average | 31.1% | 36.4% | 30.4% | 32.5% |
| • At or above 2.0 times the average | 15.3% | 25.2% * | 17.4% | 23.5% |
| • Worker's health plan has a deductible greater than $1,000 per person | | 11.9% | 24.2% ^^ | 33.7% |
| • Worker's health plan has a deductible greater than $1,000 per person and includes a health savings account | | 0.9% | 4.6% ^ | 7.1% |

Source: 2006-2012 Massachusetts Health Reform Survey (N=6,309 all workers; N=1,179 workers in small firms).
Notes: Small firms are defined as having fewer than 51 employees. The regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, whether the individual has a chronic health condition 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 2012 sample would have had if they had been observed in the preceding study years.
*(**) Value for year is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) In 2010 and 2012, value for year is significantly different from the value two years prior at the .05 (.01) level, two-tailed test.
[a] See text for description of measure of average employee contribution to ESI premium.

With health insurance premiums in Massachusetts continuing to rise, there was an increase between 2006 and 2012 in the overall percentage of workers reporting premium contributions

53 Data from Medical Expenditure Panel Survey-Insurance Component Summary Data Tables X.C.1 and X.D.1 for 2006 and 2011. Rockville, MD: Agency for Healthcare Research and Quality, Center for Financing, Access and Cost Trends. Available at www.meps.ahrq.gov/mepsweb/data_stats/quick_tables.jsp. Since some of the respondents in the MHRS report their premium contributions by category (e.g., less than $40/month, between $40 and $125/month, etc.), we are not able to construct an average level of employee contributions to premiums in Massachusetts using the MHRS. Differences in how premiums are reported also means that we are not able to compare the estimates of the distribution of premiums in Massachusetts based on the survey used in this study with other data sources on ESI premiums for Massachusetts.

that were 2.0 times the average employee contribution (Exhibit VII.2).[54] In 2006, 14.9 percent of workers reported a premium contribution at or above 2.0 times the average, and 18.9 percent did so in 2012—an increase of 4.0 percentage points.[55] This increase in workers with relatively high premium contributions occurred at the same time that there was an increase in the share of workers reporting that they had a health plan with a deductible of $1,000 or more, suggesting that the increase might have been even greater if not for a shift toward lower-premium, high-deductible plans. In 2012, 25.1 percent of workers had a high-deductible health plan, as compared with 10.3 percent in 2008.

The increase in workers reporting high premium contributions seems to be concentrated among workers in larger firms. We see no comparable increase for workers in firms with 50 or fewer workers; however, workers in small firms were more likely in 2012 to report participation in a health plan with a high deductible. Among workers in small firms in 2012, 33.7 percent reported a high-deductible plan, as compared with 11.9 percent in 2008.

**Workers' assessment of their coverage.** Rather than eliminating coverage altogether, employers could decide to reduce their health insurance costs by scaling back the benefits covered under their plans, limiting the choice of providers, or increasing deductibles and co-payments. While we do not have the data to report on direct measures of such changes, Exhibit VII.3 reports on the shares of workers who rated their employer-sponsored plans as very good or excellent on several important dimensions related to the scope of coverage and provider choice[56] and who reported problems with their employer-sponsored health plans.

As shown, the majority of workers in Massachusetts (more than 70 percent) rated their health plans as very good or excellent in 2012 in terms of the range of services offered, their choice of doctors and other providers, and the overall quality of care available under the plan. Further, the levels of satisfaction reported in 2012 were as good as or better than those reported in 2006. In particular, more workers rated the range of services available under their plan (71.5 versus 64.7 percent) as very good or excellent in 2012 than in 2006.[57]

The increase since 2006 in the share of workers giving high ratings for the range of services offered by their plan may reflect firms expanding their benefit package to comply with the minimum creditable coverage standards for health insurance coverage that were established under health reform in Massachusetts.[58] Despite high levels of satisfaction for the range of services offered,

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54 Data from the Massachusetts Division of Health Care Finance and Policy's Massachusetts Employer Survey for 2011 also show an increase in premiums for employees in 2011 relative to 2010. See Massachusetts Division of Health Care Finance and Policy. *Massachusetts Health Insurance and Employer Survey Chartbook, Updates for 2011*. Boston, MA: Massachusetts Division of Health Care Finance and Policy, 2013.

55 Tabulations based on median premiums from the Massachusetts Division of Health Care Finance and Policy's Massachusetts Employer Survey for 2011 show a slight decrease in the median premium contribution for employees in 2011 relative to 2010. See Massachusetts Division of Health Care Finance and Policy. *Massachusetts Health Insurance and Employer Survey Chartbook, Updates for 2011*. Boston, MA: Massachusetts Division of Health Care Finance and Policy, 2013.

56 Workers were asked to rate their plans using a scale of excellent, very good, good, fair, or poor.

57 While Massachusetts workers continue to provide a favorable assessment of their ESI plans, there is evidence that the level of benefits covered by private group plans has declined since 2007, while cost sharing has increased. See Massachusetts Division of Health Care Finance and Policy. *Massachusetts Health Care Cost Trends: Premiums and Expenditures*. Boston, MA: Massachusetts Division of Health Care Finance and Policy, 2012, http://www.mass.gov/chia/docs/cost-trend-docs/cost-trends-docs-2012/premiums-and-expenditures.pdf.

58 The "minimum creditable coverage" standards include coverage for a comprehensive set of services: doctor visits for preventive care, without a deductible; limits on out-of-pocket spending; no caps on total benefits for a particular illness or a single year; and prescription drugs. See https://www.mahealthconnector.org/HomePortal/content/conn/UCM/path/Contribution%20Folders/Content%20Folders%20for%20Connector/About/Policy_Center/Rules_and_Regulations/documents/956CMR5.00.pdf.

**EXHIBIT VII.3: REGRESSION-ADJUSTED TRENDS IN SCOPE OF COVERAGE UNDER HEALTH PLANS FOR WORKERS 19 TO 64 WITH EMPLOYER-SPONSORED INSURANCE COVERAGE IN MASSACHUSETTS, FALL 2006 TO FALL 2012**

| | FALL 2006 | FALL 2008 | FALL 2010 | FALL 2012 |
|---|---|---|---|---|
| **Characteristics of health plan** | | | | |
| Need referral to see specialist | 63.2% | 52.0% ** | 49.9% ** | 52.1% ** |
| Health plan has a deductible | 36.9% | 40.3% | 50.5% ** ^^ | 59.3% ** ^^ |
| Health plan has a deductible greater than $1,000 per person | | 10.3% | 21.0% ^^ | 25.1% |
| Health plan has a deductible greater than $1,000 per person and includes a health savings account | | 1.6% | 3.8% ^ | 6.0% |
| **Worker rates health plan as very good or excellent** | | | | |
| Range of services available | 64.7% | 68.3% | 71.3% ** | 71.5% ** |
| Choice of doctors | 69.9% | 73.1% | 75.0% ** | 72.6% |
| Quality of care available | 70.1% | 74.1% | 73.5% | 71.5% |
| Location of doctors and other providers | | | 74.1% | 72.8% |
| Ability to get specialist care | | | 71.1% | 70.1% |
| Financial protection against high medical bills | | | 56.7% | 54.7% |
| **Problems with health coverage in past 12 months** | 41.3% | 37.3% | 37.7% | 41.0% |
| Had expensive medical bills for services not covered by plan | 15.6% | 14.8% | 15.6% | 17.9% |
| Doctor charged a lot more than health insurance would pay and individual had to pay the difference | 13.6% | 14.1% | 15.0% | 18.3% * ^ |
| Had to contact health insurance company because bill was not paid promptly or payment was denied | 30.6% | 26.0% * | 21.8% ** ^ | 25.4% * |
| Doctor's office did not accept individual's type of health insurance | 6.0% | 6.9% | 7.1% | 9.1% * |

Source: 2006-2012 Massachusetts Health Reform Survey (N=6,309 all workers).
Notes: The regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, whether the individual has a chronic health condition 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 2012 sample would have had if they had been observed in the preceding study years.
*(**) Value for year is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) In 2010 and 2012, value for year is significantly different from the value two years prior at the .05 (.01) level, two-tailed test.

only 54.7 percent of workers rated the financial protection their health insurance coverage offered against high medical bills as very good or excellent in 2012.

Turning to workers' experiences with their health insurance coverage, we find no change in the share of workers reporting problems but observe shifts in the type of problems encountered.[59]

59 The information on problems with high health care costs is based on the following question: "I'm going to read you a list of problems some people experience with their health insurance coverage. Please tell me if you have had these problems with your health insurance coverage in the last 12 months. 1) You had expensive medical bills for services NOT covered by your health insurance. Has this happened to you in the past 12 months? 2) Your doctor charged you a lot more than your health insurance would pay and you had to pay the difference. Has this happened to you in the past 12 months?"

For example, between 2006 and 2012, the share of workers reporting that their doctor charged more than their health plan would pay rose by 4.7 percentage points (from 13.6 percent to 18.3 percent), while the share who had to contact their health insurance plan because the bill was not paid promptly or payment was denied dropped by 5.3 percentage points (from 30.6 percent to 25.4 percent). Overall, 41.0 percent of workers reported one or more problems in 2012, as compared with 41.3 percent in 2006.

**EXHIBIT VII.4: REGRESSION-ADJUSTED TRENDS IN SCOPE OF COVERAGE UNDER HEALTH PLANS FOR WORKERS 19 TO 64 WITH EMPLOYER-SPONSORED INSURANCE COVERAGE IN SMALL FIRMS IN MASSACHUSETTS, FALL 2006 TO FALL 2012**

| | FALL 2006 | FALL 2008 | FALL 2010 | FALL 2012 |
|---|---|---|---|---|
| **Characteristics of health plan** | | | | |
| Need referral to see specialist | 71.1% | 56.0% ** | 52.8% ** | 55.9% ** |
| Health plan has a deductible | 35.3% | 43.5% | 55.7% ** ^ | 64.4% ** |
| Health plan has a deductible greater than $1,000 per person | | 11.9% | 24.2% ^^ | 33.7% |
| Health plan has a deductible greater than $1,000 per person and includes a Health Savings Account | | 0.9% | 4.6% ^ | 7.1% |
| **Worker rates health plan as very good or excellent** | | | | |
| Range of services available | 59.9% | 64.9% | 72.8% * | 63.8% ^ |
| Choice of doctors | 65.7% | 72.7% | 74.4% | 65.1% |
| Quality of care available | 67.4% | 74.4% | 70.9% | 64.5% |
| Location of doctors and other providers | | | 66.9% | 71.1% |
| Ability to get specialist care | | | 66.3% | 66.0% |
| Financial protection against high medical bills | | | 51.9% | 51.7% |
| **Problems with health coverage in past 12 months** | 37.5% | 39.1% | 41.7% | 41.6% |
| Had expensive medical bills for services not covered by plan | 14.4% | 16.0% | 16.6% | 20.3% |
| Doctor charged a lot more than health insurance would pay and individual had to pay the difference | 10.2% | 12.2% | 12.6% | 16.9% |
| Had to contact health insurance company because bill was not paid promptly or payment was denied | 27.6% | 28.3% | 27.1% | 25.7% |
| Doctor's office did not accept individual's type of health insurance | 5.5% | 9.8% | 6.9% | 15.8% ** ^^ |

Source: 2006-2012 Massachusetts Health Reform Survey (N=1,179 workers in small firms).
Notes: Small firms are defined as having fewer than 51 employees. The regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, whether the individual has a chronic health condition 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 2012 sample would have had if they had been observed in the preceding study years.
*(**) Value for year is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) In 2010 and 2012, value for year is significantly different from the value two years prior at the .05 (.01) level, two-tailed test.

When we look at workers in small firms, we find that those workers provided an assessment of their health plans in 2012 that was the same as in 2006 in terms of the range of services available, the choice of doctors, and the quality of care (Exhibit VII.4). However, there was evidence

**EXHIBIT VII.5: SCOPE OF HEALTH PLAN NETWORK INCENTIVES FOR WORKERS 19 TO 64 WITH EMPLOYER-SPONSORED INSURANCE COVERAGE IN MASSACHUSETTS, FALL 2012**

| | FALL 2012 |
|---|---|
| **Encouraged by health plan to use a network of providers** | 76.8% |
| **Among those encouraged to use a network of providers, health plan pays for costs associated with seeing a doctor who is not part of the health plan's network** | |
| • Yes | 62.4% |
| • No | 22.1% |
| • Don't know/refused | 15.4% |
| **Among those encouraged to use a network of providers, health plan provides tiered network** | |
| For doctors or hospitals | |
| • Yes | 31.4% |
| • No | 48.6% |
| • Don't know/refused | 19.9% |
| For doctors | |
| • Yes | 27.1% |
| • No | 54.1% |
| • Don't know/refused | 18.7% |
| For hospitals | |
| • Yes | 21.9% |
| • No | 54.2% |
| • Don't know/refused | 23.9% |
| **Among those whose health plan provided a tiered network** | |
| Knows how to obtain information about providers in the tiered network | 75.9% |
| Used information about providers in the tiered network when choosing doctors or hospitals | 53.0% |

Source: 2012 Massachusetts Health Reform Survey (N=1,613).
Notes: These are simple (unadjusted) estimates. A network is a group of providers, such as physicians, hospitals, and pharmacies, who contract with a health plan to provide health care services to members of that health plan. In a tiered network, health insurers sort providers into different groups (or tiers) based on cost-efficiency and quality performance with more cost-efficient high-quality providers available at lower cost to the consumer. Estimates may not sum to 100 percent due to rounding.

of more problems with their health insurance coverage than there was among workers overall. Overall, the share of workers reporting one or more problems rose from 37.5 percent in 2006 to 41.6 percent in 2012. Further, the share of workers who were told by a doctor's office that the provider was not accepting their health plan rose by 10.3 percentage points (from 5.5 percent to 15.8 percent).

**Availability of tiered networks in current health insurance coverage.** In 2012, 76.8 percent of workers were enrolled in plans that encouraged the use of networks of providers (Exhibit VII.5). Among those workers, 27.1 percent (or 23.9 percent of all workers with ESI [data not shown]) reported they had access to a tiered network for doctors, while 54.1 percent (or 58.2 percent of all workers with ESI [data not shown]) reported that their plan did not offer a tiered network for doctors and 18.7 percent did not know whether a tiered network for doctors was offered (or 17.9 percent of all workers with ESI [data not shown]). Fewer workers with ESI whose plans included a provider network were provided a tiered network for hospitals, with 21.9 percent

(or 18.5 percent of all workers with ESI [data not shown]) reporting access. The remaining workers with a network of providers reported that their plan did not offer a tiered network for hospitals (54.2 percent, or 58.5 percent of all workers with ESI [data not shown]) or that they did not know whether a tiered network for hospitals was offered (23.9 percent, or 23.0 percent of all workers with ESI [data not shown]).

Among the adults who reported the availability of a tiered network, the majority (75.9 percent) knew how to obtain the information needed to determine whether a provider was included in a network with lower cost sharing, and more than half (53.0 percent) reported that they used that information in selecting a provider.

# VIII. LOOKING AHEAD

In 2012, Massachusetts continued to benefit from the highest level of health insurance coverage in the country following its 2006 health reform initiative, the template for the 2010 national Affordable Care Act. Health insurance coverage for nonelderly adults in the Bay State in 2012 continued at about 95 percent, well above the 79.2 percent that is estimated for the nation overall.[60] ESI coverage continued to serve as the backbone of insurance coverage in the state. In 2012, 63.6 percent of nonelderly adults in the Bay State had ESI coverage, up from 61.0 percent in 2006. The sustained gains in insurance coverage, including employer-sponsored coverage, in Massachusetts under Chapter 58 highlight the potential for coverage gains for the rest of the nation under the ACA.

Massachusetts residents also have continued to enjoy many of the gains in access to health care and health care affordability that were achieved in the early years following the 2006 initiative. It appears, however, that some of the early gains have been eroding over time, likely reflecting the changing economic circumstances of the state and the nation and the continuing increase in health care costs. Nonetheless, as of 2012, most nonelderly adults in Massachusetts were connected to the health care system and had a place they usually went when they were sick or needed advice about their health (87.8 percent), most reported a doctor visit in the past 12 months (81.9 percent, including 74.7 percent with a visit for preventive care), and most rated the care that they received as very good or excellent (72.4 percent). However, some residents of the state reported problems obtaining the care they needed, including one-third (33.5 percent) who reported going without needed health care.

Reflecting the burden of health care costs in the state, affordability of care was a problem for many nonelderly adults in Massachusetts and their families in 2012. More than one in four Massachusetts adults (27.0 percent) reported that health care spending had caused financial problems over the past year, including problems paying medical bills (17.9 percent), medical debt (20.3 percent), and unmet need because of costs (16.4 percent). This was especially true for lower- and middle-income residents, but concerns about affordability and health care costs were reported by adults at all income levels.

Health insurance coverage does not necessarily eliminate the burden of health care costs: most of the adults reporting problems with medical bills, medical debt, and unmet need for care because of costs were insured for all of the prior year. In 2012, more than one in 10 of nonelderly adults with insurance coverage all year were estimated to be underinsured, defined as having high health care costs that were not covered by their insurance. Given those findings, it is perhaps not surprising that many adults in Massachusetts are worried about the future; 57.8 percent reported that they were “very worried” or “somewhat worried” about paying medical bills if they got sick or had an accident.

60 Martinez ME and Cohen RA. *Health Insurance Coverage: Early Release of Estimates From the National Health Interview Survey, January–September 2012*. Hyattsville, MD: Division of Health Interview Statistics, National Center for Health Statistics, 2013.

Rising health care costs have long been a concern in Massachusetts, leading to enactment of "An Act Improving the Quality of Health Care and Reducing Costs Through Increased Transparency, Efficiency and Innovation" (Chapter 224 of the Acts of 2012).[61] Chapter 224, which builds on earlier cost-containment legislation in the state ("An Act to Promote Cost Containment, Transparency and Efficiency in the Delivery of Quality Health Care" [Chapter 305 of the Acts of 2008] and "An Act to Promote Cost Containment, Transparency and Efficiency in the Provision of Quality Health Insurance for Individuals and Small Businesses" [Chapter 288 of the Acts of 2010]),[62] is intended to bring the rate of growth in per-capita health care spending down to the rate of growth of the state's economy.

The changes to be implemented under Chapter 224, combined with the broad changes to the state's health care system being introduced under the ACA[63] and earlier legislation, make the results from the 2012 Massachusetts Health Reform Survey an important new baseline as the state works to transform the health care system to deliver quality care more efficiently. More efficient care delivery is essential if the sustained gains in insurance coverage in Massachusetts are to translate into sustained gains in access to needed health care for the state's residents.

61 Gosline A and Rodman E. *Summary of Chapter 224 of the Acts of 2012.* Boston, MA: Blue Cross Blue Shield of Massachusetts Foundation, 2012.

62 Mechanic RE, Altman SH, and McDonough JE. "The New Era of Payment Reform, Spending Targets and Cost Containment in Massachusetts: Early Lessons for the Nation." Health Affairs, 31(10): 2334-2342, 2012.

63 Seifert RW and Cohen AP. *Re-forming Reform: What the Patient Protection and Affordable Care Act Means for Massachusetts.* Boston, MA: Blue Cross Blue Shield of Massachusetts Foundation, 2011.