HEALTH REFORM IN MASSACHUSETTS AS OF FALL 2010:

GETTING READY FOR THE AFFORDABLE CARE ACT & ADDRESSING AFFORDABILITY

JANUARY 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), 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 fall 2006, just prior to the implementation of key elements of the law. That survey, called the Massachusetts Health Reform Survey (MHRS), has been fielded in the fall of most subsequent years.[1]

With the 2010 passage of the federal *Patient Protection and Affordable Care Act* (ACA), the focus of the MHRS was expanded to include the collection of additional data to help track the impacts of the ACA. Although the ACA draws heavily on the Commonwealth's 2006 health reform initiative, including an expansion of publicly subsidized coverage, the creation of health insurance exchanges to facilitate access to coverage, and the implementation of an individual mandate, there are key differences between the two laws.[2] Most notably, under the ACA, Massachusetts will need to reassess its affordability standards, subsidy levels, and benefit packages, which do not currently match ACA requirements.

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1 The first three years of the survey (2006, 2007, and 2008) were funded jointly with the Commonwealth Fund and the Robert Wood Johnson Foundation.

2 A summary of the implications of the ACA for Massachusetts is provided in Seifert, R.W. and Cohen, A.P. Re-forming Reform: What the Patient Protection and Affordable Care Act Means for Massachusetts. Boston, MA: Blue Cross Blue Shield Foundation, 2011. Available at bluecrossfoundation.org/~/media/Files/Publications/Policypercent20Publications/062110NHRReportFINAL.pdf.

This report provides an update on trends in the state since fall 2006, just prior to the implementation of Chapter 58, along with a more in-depth overview of the circumstances of working-age adults in the state as of fall 2010. The latter, which is prior to the implementation of key components of the ACA, provides a baseline for understanding changes under the ACA in Massachusetts. The outcomes examined include health insurance coverage, health care access and use, health care costs and affordability, and financial problems associated with health care costs, as well attitudes toward health reform in the state. We present estimates for working-age adults overall and, for some analyses, for higher- and lower-income working-age adults. Higher-income adults are defined as those with family income at or above 300 percent of the federal poverty level (FPL) and lower-income adults are those with family income less than 300 percent of the FPL. In 2010, 300 percent of the FPL was $54,930 for a family of three.[3]

KEY FINDINGS: TRENDS FROM FALL 2006 TO FALL 2010

Health Insurance Coverage

- Health insurance coverage continues at high levels in Massachusetts, with coverage among nonelderly adults at 94.2 percent in fall 2010. This is well above the 86.6 percent in fall 2006, and unchanged from the coverage rate in fall 2009. In contrast, insurance coverage for nonelderly adults in the nation as a whole is much lower (78.5 percent in 2010) and has declined since 2006 (80.2 percent).

- A key factor in the continued high levels of insurance coverage in Massachusetts is the sustained role of employer-sponsored insurance (ESI) coverage. ESI coverage in fall 2010, at 68.0 percent, was higher than in fall 2006 (64.4 percent) and higher than in fall 2009 (67.1 percent). There is no evidence of public coverage "crowding out" employer-sponsored coverage under health reform in Massachusetts.

3 https://www.cms.gov/medicaideligibility/downloads/POV10Combo.pdf.

Health Care Access and Use

- There were sustained gains in access to and use of health care between fall 2006 and fall 2010 for nonelderly adults in Massachusetts. For example, nonelderly adults were more likely to have a place they usually go to when they are sick or need advice about their health (up 4.7 percentage points), more likely to have had a preventive care visit (up 5.9 percentage points), more likely to have had multiple doctor visits (up 5.0 percentage points), more likely to have had a specialist visit (up 3.7 percentage points), and more likely to have had a dental care visit (up 5.0 percentage points).
- Between fall 2006 and fall 2010, there were reductions in emergency department use overall (down 3.8 percentage points), frequent emergency department visits (down 1.9 percentage points), and the use of the emergency department for non-emergency conditions (down 3.8 percentage points). This is the first reduction in emergency department use among nonelderly adults in Massachusetts observed in the MHRS.
- The reduced reliance on the emergency department among nonelderly adults may reflect many factors, including the increases in use of other types of health care (e.g., increases in preventive care visits, multiple doctor visits, specialist visits, and dental care) or increases in cost sharing under their health plans.

Health Care Costs and Affordability

- Despite the continuing increase in health care costs in Massachusetts (which predates health reform), fewer nonelderly adults reported high out-of-pocket spending on health care, unmet need for care because of costs, and problems paying medical bills in fall 2010 than in fall 2006. These measures remained unchanged between fall 2009 and fall 2010.

Self-reported Health Status

- The share of nonelderly adults in Massachusetts reporting their health status as very good or excellent increased between fall 2006 and fall 2010 (from 46.7 percent to 53.2 percent). While encouraging, this finding highlights the need for studies assessing changes in health under health reform in Massachusetts using stronger measures.

Support for Health Reform

- Support for health reform among nonelderly adults in Massachusetts remained strong in fall 2010, at 65.7 percent. This is not significantly different from that reported prior to health reform in fall 2006 (68.5 percent) or from that in fall 2009 (66.9 percent). However, among the remaining adults, there has been a shift in the share opposed to health reform. In fall 2006, 14.5 percent of nonelderly adults reported neither supporting nor opposing reform, while 17.0 percent were opposed to reform. By fall 2010, 26.9 percent of adults opposed reform and only 7.4 percent reported neither supporting nor opposing reform.

Offers of ESI Coverage and Employee Take-up

- ESI coverage continues to provide the foundation for insurance coverage in Massachusetts. In fall 2010, as in fall 2006, roughly 90 percent of workers were employed by firms that offered health insurance coverage, and more than 80 percent were employed by firms that offered coverage to them specifically. ESI coverage among workers with an offer from their employer was about 93 percent in both fall 2006 and fall 2010.
- ESI has also remained strong for workers in small firms (defined as those with fewer than 51 employees), with more than 70 percent of those workers employed by firms that offered coverage over the fall 2006 to fall 2010 period. Among those with an offer, nearly all were covered by an employer-sponsored plan.

ESI Premiums and Workers' Assessment of Coverage

- Increasing shares of workers in Massachusetts reported relatively high contributions toward their health insurance premiums in fall 2010 relative to fall 2006, which is consistent with the continued escalation of health care costs in the state, as in the nation as a whole.[4] Health care costs in Massachusetts and the nation continue to rise rapidly, outpacing growth in both wages and inflation.[5]
- Despite the increase in high premium contributions, the majority of workers in Massachusetts in fall 2010 (more than 70 percent) rated their health plans as very good or excellent 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, with the levels of satisfaction reported in fall 2010 as good as or better than those reported in fall 2006.

KEY FINDINGS: GETTING READY FOR THE ACA IN FALL 2010

Health Insurance Coverage

- Insurance coverage was quite high in Massachusetts in fall 2010, particularly among higher-income nonelderly adults. Overall, 94.2 percent of nonelderly adults in Massachusetts were insured, as were 97.4 percent of higher-income adults and 90.1 percent of lower-income adults.
- Continuity of insurance coverage was also high in fall 2010, with 87.9 percent of all nonelderly adults insured for all of the prior year. Full-year coverage was at 94.2 percent for higher-income adults and 79.8 percent for lower-income adults.

4 The Centers for Medicare and Medicaid Services projects that the National Health Expenditures (NHE) will grow from 15.8 percent of Gross Domestic Product (GDP) in 2006 to 17.5 percent in 2010. See http://www.cms.gov/NationalHealthExpendData/downloads/NHEProjections2009to2019.pdf.

5 Massachusetts Division of Health Care Finance and Policy. *Massachusetts Health Care Costs Trends: Trends in Health Expenditures*. Boston, MA: Massachusetts Division of Health Care Finance and Policy, 2011. Available at http://www.mass.gov/Eeohhs2/docs/dhcfp/cost_trend_docs/cost_trends_docs_2011/health_expenditures_report.pdf.

- Consistent with their strong continuity of coverage, in fall 2010, most nonelderly adults (84.0 percent) were confident in their ability to keep their current health insurance coverage over the coming year.
- Roughly two-thirds of nonelderly adults with insurance coverage rated their current health plan as very good or excellent in fall 2010 in terms of the range of services available, their choice of doctors and other health providers, their ability to get specialist care, and the quality of care available to them. Higher-income adults were more likely to rate these aspects of their coverage as very good or excellent than were their lower-income counterparts.
- Only about half (51.4 percent) of the insured adults rated their current health plan's financial protection against high medical bills as very good or excellent. In addition, roughly one in six adults reported expensive medical bills for services not covered by their plan or that their doctor had charged more than their plan would pay over the past year.
- More than one in ten of the insured adults reported that they had been told that a doctor's office did not accept their insurance type, with the problem more common among lower-income adults than higher-income adults (21.0 versus 7.4 percent), likely due to the greater reliance on public coverage among the lower-income group.

Usual Source of Health Care

- In fall 2010, most nonelderly adults in Massachusetts had strong ties to the health care system, with more than 90 percent reporting a usual source of care—often a doctor's office or private clinic (79.7 percent). In addition, most adults with a usual source of care had had that patient-provider relationship for a year or more (92.3 percent), with almost two-thirds reporting the same relationship for five years or more.
- Higher-income adults were more likely than lower-income adults to report a usual source of care (95.2 versus 84.2 percent) and to have a doctor's office or private clinic as their usual source of care (87.1 versus 68.9 percent). They were also more likely to have had the same usual source of care for five years or more (71.3 versus 56.6 percent).

Health Care Use

- In fall 2010, most nonelderly adults in Massachusetts had used health care services over the past year, including 81.7 percent with a visit to a general doctor, 75.8 percent with a preventive care visit, 53.7 percent with a specialist visit, and 72.9 percent with a dental care visit.
- Higher-income adults were more likely than lower-income adults to have had a general doctor visit (84.6 versus 77.9 percent), a preventive care visit (78.6 versus 72.1 percent), and a dental care visit (82.5 versus 60.5 percent) over the prior year, while lower-income adults were more likely than the higher-income adults to have had a visit to a non-physician provider as a substitute for a general doctor visit (39.3 versus 33.5 percent) and a hospital stay (12.4 versus 7.1 percent).

- The majority of nonelderly adults who visited multiple providers over the year reported receiving help coordinating their health care (67.7 percent), with the levels of care coordination similar for higher- and lower-income adults.
- One in five nonelderly adults in Massachusetts reported needing after-hours care at some point over the prior year, which generally resulted in an emergency department visit. Altogether about 30 percent of nonelderly adults reported an emergency department visit over the prior year, with 7.1 percent reporting three or more visits over the year, and 12.2 percent reporting their most recent visit was for a non-emergency condition.
- Lower-income adults were more likely than higher-income adults to report needing after-hours care (25.0 versus 16.1 percent) and more likely to get that care in an emergency room (67.8 versus 53.7 percent). Overall, lower-income adults were more likely to report any emergency department visit (42.4 versus 20.9 percent), frequent emergency department visits (12.6 versus 2.8 percent), and an emergency department visit for a non-emergency condition (18.8 versus 7.1 percent).
- The majority of nonelderly adults who used health care over the prior year rated the quality of the care they received as very good or excellent (68.4 percent). Higher-income adults reported higher levels of satisfaction with their care than did lower-income adults, with a greater share rating the care they had received over the past year as very good or excellent (75.8 versus 58.2 percent).

Unmet Need for Health Care

- More than one in five nonelderly adults in Massachusetts reported that they did not get needed care in the past 12 months, with unmet need for dental care most common—at 11.4 percent. A range of reasons was reported for that unmet need, with cost of care reported most often (at 60.0 percent of those with unmet need).
- Lower-income adults were more likely than higher-income adults to report unmet need for care (31.6 versus 15.9 percent); however, the reported reasons for unmet need were generally similar. The exception was trouble finding a provider who would see them—which was reported by 19.4 percent of lower-income adults with unmet need for care, as compared to 8.4 percent of their higher-income counterparts.

Health Care Costs and Affordability

- Health care costs were an important issue for many families in Massachusetts in fall 2010. About half (49.4 percent) of nonelderly adults in Massachusetts reported their family was spending more on health care in 2010 than in the prior year and a quarter were not confident in their ability to afford care in the coming year.

- More than a quarter of the adults (28.3 percent) reported that their health care spending in 2010 had caused financial problems for their families, often leading them to cut back on health care services and other spending or to reduce savings. Such financial problems were more common for lower-income adults than higher-income adults (37.1 versus 21.5 percent).
- Nearly one in five nonelderly adults (17.5 percent) reported problems paying their medical bills in fall 2010. Most often those bills were for doctor or hospital care. Lower-income adults were more likely than higher-income adults to report problems paying medical bills (26.1 versus 10.9 percent).
- In fall 2010 one in five nonelderly adults had medical bills that they were paying off over time. Almost half of those adults reported that their problems paying medical bills began more than a year earlier. Lower-income adults were more likely than higher-income adults to have medical debt (23.2 versus 17.9 percent) and to report that their problems paying medical bills had begun more than a year ago (53.8 versus 38.1 percent).
- Health care costs can be a barrier to obtaining needed health care. Unmet need because of the cost of care was reported by 13.6 percent of adults, most often for dental care (7.8 percent). The most common reason reported for unmet need was that the service was not covered by insurance, with the share of adults reporting that as a factor ranging from 55.2 percent for unmet need for prescription drugs to 80.4 percent for unmet need for dental care. The share of adults reporting that the unmet need was due to co-pays for the service was lower, ranging from 24.8 percent for unmet need for preventive care screening to 47.2 percent for unmet need for prescription drugs.
- Unmet need because of the cost of care was more common among lower-income adults, with about one in five reporting some type of unmet need due to costs, as compared to one in ten among higher-income adults. Lower-income adults were more likely than higher-income adults to report unmet need for all of the types of services examined, although the difference was not statistically significant for preventive care screenings.
- Underinsurance arises when insurance coverage does not protect an individual from the financial risk associated with serious illness or injury. In fall 2010, 8.9 percent of nonelderly adults in Massachusetts who were insured for the full year were underinsured. This is substantially lower than the national underinsurance rate of 19.0 percent in 2010.[6]

Uninsured Adults

- In fall 2010, 5.8 percent of nonelderly adults in Massachusetts were uninsured at the time the MHRS was fielded, 12.1 percent were uninsured at some point over the prior year, and 2.9 percent were uninsured for all of the prior year.

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6 Schoen, C., Doty, M.M., Robertson, R.H., and Collins, S.R. "Affordable Care Act Reforms Could Reduce the Number of Uninsured US Adults by 70 Percent." *Health Affairs* 2001, 30(9): 1762-1771.

- Relative to the adults who were always insured over the year, adults who were ever uninsured had less of a connection to the health care system and used less health care. Only about 70 percent of the uninsured adults had a usual source of care, as compared to 93.1 percent of the insured adults. About two-thirds of the uninsured adults had had a visit to a general doctor, specialist, or non-physician provider over the past 12 months, as compared to 87.7 percent of the insured adults.

- Adults who were ever uninsured over the year reported more problems obtaining care and more problems paying for health care than did their insured counterparts. This included more unmet need for care (overall and because of costs), higher out-of-pocket health care spending, more problems paying medical bills, and more medical debt. Consistent with these findings, uninsured adults were more likely than insured adults to report that health care spending had caused financial problems for their family over the past year (45.3 percent as compared to 26.0 percent).

- While there was not a significant difference in the shares of insured and uninsured adults who had had an emergency department visit over the prior year, nearly one in five of uninsured adults reported that their most recent visit was for a non-emergency condition, compared to roughly one in ten of the insured adults.

- Information on reasons for being uninsured is only available for those adults who were uninsured at the time of the survey. Among those uninsured adults, 59.0 percent reported that cost was the main reason they were uninsured. For uninsured adults with access to coverage through a job (18.3 percent), the majority (60.4 percent) reported that cost was the main reason they did not take up employer coverage.

- More than half of the adults who were uninsured at the time of the survey (52.4 percent) reported that they had tried to obtain coverage in response to the individual mandate but had not been able to find affordable coverage.

LOOKING AHEAD

Massachusetts' 2006 reform initiative, the template for national reform, continued to fare well in fall 2010, despite a severe economic downturn and the continued escalation of health care costs in the state. Uninsurance in the state remained at a historically low level in fall 2010, with employer-sponsored insurance continuing to be strong. There are no signs that employers in Massachusetts have responded to reform by dropping coverage for their workers or scaling back in key aspects of the scope of coverage.

Perhaps not surprising, given that Massachusetts has maintained near-universal coverage for the last three years, access to health care in Massachusetts is better than it was in fall 2006-—including better access to doctor care; specialist care; medical tests, treatment, and follow-up care; and preventive care screenings. And, for the first time in fall 2010, there were reductions in emergency department use,

including reductions in multiple visits and visits for non-emergency conditions, and in inpatient hospital stays. These changes are suggestive of improvements in the effectiveness of the delivery of health care in the state.

Despite these significant achievements, Massachusetts continues to struggle with escalating health care costs, reflecting the decision to defer addressing costs in the 2006 legislation so as not to hold up the expansion in coverage. Consequently, the affordability of health care and financial problems related to high health care costs are burdens for many families in the state. In the absence of any intervention, the burden of high health care costs will worsen, as health care spending per capita in Massachusetts, already the highest in the country, is projected to nearly double between 2010 and 2020.[7]

Beginning with the Massachusetts Health Care Quality and Cost Council[8] that was created as part of the 2006 legislation, Massachusetts has invested considerable public and private resources over the past five years into understanding the drivers of health care costs in the state.[9] That work has supported wide-ranging discussions across stakeholders of potential strategies to "bend the curve." There is strong consensus in the state on the need to address rising health care costs and, increasingly, consensus on the best way to do so.

Going forward, the success of health reform under the ACA in Massachusetts, and in the rest of the country, will depend on the ability of policymakers and stakeholders to come together to take on the considerable challenge of reining in health care costs. Hopefully Massachusetts will lead the way here, much as the state did in the push toward universal coverage.

7 *Roadmap to Cost Containment: Massachusetts Health Care Quality and Cost Council Final Report*. Boston, MA: Massachusetts Health Care Quality and Cost Council, October 21, 2009. See http://www.mass.gov/Ihqcc/docs/roadmap_to_cost_containment_nov-2009.pdf.

8 http://www.mass.gov/?pageID=hqcchomepage&L=1&L0=Home&sid=Ihqcc.

9 This includes annual public hearings on cost trends sponsored by the Massachusetts Division of Health Care Finance and Policy (DHCFP) (http://www.mass.gov/dhcfp/costtrends) and numerous reports by DHCFP, the Massachusetts Attorney General, and other public and private sources.

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I. INTRODUCTION

In April 2006, Massachusetts enacted health care reform legislation 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 through a combination of Medicaid expansions, subsidized private health insurance coverage, insurance market reforms, and coverage requirements for individuals and employers.[1] 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 fall 2006, just prior to the implementation of key elements of the state's reform legislation. The survey, the Massachusetts Health Reform Survey (MHRS), has been fielded in the fall of each subsequent year.[2] To date, the MHRS has documented strong gains in insurance coverage, improvements in access to and use of care, and progress on the affordability of care for nonelderly adults over time. The findings from research based on the MHRS are generally supported by studies using other data sources, including studies using the Current Population Survey (CPS), the National Health Interview Survey (NHIS), and the Behavioral Risk Factor Surveillance System (BRFSS). Appendix A provides a summary of key findings of prior studies using the MHRS and other data sources to examine changes in insurance coverage, changes in access to and use of health care, and changes in health care affordability under health reform in Massachusetts.

With the 2010 passage of the federal *Patient Protection and Affordable Care Act* (ACA), the focus of the MHRS was expanded to include the collection of additional data to help the state track the impacts of ACA implementation. Although the ACA draws heavily on the Commonwealth's 2006 health reform initiative, including an expansion of publicly subsidized coverage, the establishment of health insurance exchanges to facilitate access to coverage, and the implementation of an individual mandate, there are key differences between the two laws.[3] Most notably, under the ACA, Massachusetts will need to reassess its affordability standards, subsidy levels, and benefit packages, which do not currently match the requirements laid out by the ACA. Given the significant changes that will occur with the implementation of the ACA, the 2010 MHRS was revised to provide a stronger foundation for tracking the implications of the ACA in the Bay State over time. The 2010 MHRS includes new questions to target issues of particular concern, such as health care coordination, access to health care, and quality of coverage. Additionally, the survey sample was expanded to include cell phone households in order to better represent the full population of working-age adults in the state.

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1 For a summary of the provisions of the legislation, see www.bcbsmafoundation.org/foundationroot/en_US/documents/MassHCReformLawSummary.pdf.

2 The first three years of the survey (2006, 2007, and 2008) were funded jointly with the Commonwealth Fund and the Robert Wood Johnson Foundation.

3 A summary of the implications of the ACA for Massachusetts is provided in Seifert, R.W. and Cohen, A.P. *Re-forming Reform: What the Patient Protection and Affordable Care Act Means for Massachusetts. Boston, MA: Blue Cross Blue Shield Foundation, 2011.* Available at bluecrossfoundation.org/~/media/Files/Publications/Policy percent20Publications/062110NHRReportFINAL.pdf.

The 2010 MHRS was also revised to reflect increasing concerns in the state with respect to the affordability of health care, as health care costs in Massachusetts, as in the rest of the country, have continued to grow faster than wages and inflation.[4] In order to provide a better understanding of the implications of escalating health care costs for Massachusetts families as the state grapples with potential solutions, additional questions on health care affordability and costs were added to the 2010 questionnaire.

This report, which incorporates MHRS data from 2006 to 2010, provides an update on insurance coverage and health care trends for nonelderly adults in the state since the implementation of the state's 2006 health reform effort (Chapter III), along with a more in-depth overview of the circumstances of the adults in the state as of fall 2010 with respect to health insurance coverage (Chapter IV), access to and use of care (Chapter V), and the affordability of health care for individuals (Chapter VI). Fall 2010, as it predates the key changes that will be introduced with the ACA, serves as the baseline for assessing the impacts of the ACA in Massachusetts over time.[5] Chapter VII examines trends in workers' perceptions of their employer-sponsored insurance coverage over the 2006 to 2010 period. Finally, Chapter VIII examines the characteristics of nonelderly adults who remained uninsured in Massachusetts in fall 2010. In the report, we present estimates for nonelderly adults overall and, for some analyses, for higher- and lower-income nonelderly adults. Higher-income adults are defined as those with family income at or above 300 percent of the federal poverty level (FPL) and lower-income adults are those with family income less than 300 percent of the FPL. In 2010, 300 percent of the FPL was $54,930 for a family of three.[6]

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4 Massachusetts Division of Health Care Finance and Policy. *Massachusetts Health Care Costs Trends, Trends in Health Expenditures.* Boston, MA: Massachusetts Division of Health Care Finance and Policy, 2011. Available at www.mass.gov/Eeohhs2/docs/dhcfp/cost_trend_docs/cost_trends_docs_2011/health_expenditures_report.pdf.

5 While many of the major changes under the ACA will not be implemented until 2014, several provisions of the law were implemented in 2010, including the establishment of high-risk pools and the expansion of dependent coverage for adult children under a parent's private health insurance plan.

6 https://www.cms.gov/medicaideligibility/downloads/POV10Combo.pdf.

II. DATA AND METHODS

A. THE MASSACHUSETTS HEALTH REFORM SURVEY

The Massachusetts Health Reform Survey (MHRS) is fielded by Social Science Research Solutions (SSRS, formerly International Communications Research) in conjunction with the Urban Institute and the University of Minnesota.[7] The survey is conducted via computer-assisted telephone interviews with a random sample of working-age adults in Massachusetts in the fall of 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 in the state's Massachusetts Health Insurance Survey (MHIS).

Survey samples. In survey years 2006 to 2009 the MHRS was based on stratified random samples 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—uninsured adults, adults with family income below 300 percent of the federal poverty level (FPL), and adults with family income between 300 and 500 percent of the FPL. In 2010, a random sample of cell phones was added to the survey to supplement the landline telephone sample.

The decision to change the survey design in 2010 to include both landline telephones and cell phones 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) show a nationwide increase in the percentage of adults in cell phone-only households from 9.6 percent in January–June 2006 to 27.8 percent in July–December 2010.[8 9] Estimates for Massachusetts, which are only available from 2007 to 2010, also show a large gain in the percentage of adults in cell phone-only households, increasing from 7.9 percent in January–December 2007 to 16.8 percent in July 2009–June 2010.[10]

Oversamples in the landline sample. As noted above, the landline sample oversamples uninsured adults and low- and moderate-income adults. In order to identify uninsured adults for the oversample,

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7 The MHRS survey effort is supervised by David Dutwin at SSRS and Tim Triplett at the Urban Institute.

8 Blumberg, S.J. and Luke, J.V. *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. Available at www.cdc.gov/nchs/nhis.htm.

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

10 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, S.J., Luke, J.V., Ganesh, N., et al. *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. Available at www.cdc.gov/nchs/data/nhsr/nhsr039.pdf.

the survey includes a set of screening questions that ask whether any household members in the appropriate age range (18 to 64 in the pre-2010 years of the survey and 19 to 64 in 2010) are currently covered by any type of health insurance. The question asks about all types of health insurance coverage, including coverage obtained through a job or purchased directly from an insurance company; coverage through government programs like Medicare, MassHealth, and Commonwealth Care; coverage through Commonwealth Choice; and coverage through programs that provide health care to military personnel and their families. Based on the responses to this question, one working-age adult is selected at random from each eligible household to complete the full survey, with an oversample of the adults who are reported to be uninsured. The full survey includes more detailed insurance questions to identify specific types of coverage.

The oversample of low- and moderate-income adults is based on a geographic sampling strategy whereby local telephone exchanges are divided into three groups to reflect areas with high, moderate, and low concentrations of low- and moderate-income households. Disproportionate shares of the sample were drawn from exchanges in the state with high concentrations of low- and moderate-income households.

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. The survey also includes an opinion question drawn from a September 2006 telephone survey in Massachusetts that asked adults about their impressions of Massachusetts' newly enacted health reform law (Chapter 58) to track support for the state's health reform initiative over time.[11]

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 fall 2010 survey included questions on 1) transitions in insurance coverage over the past year, 2) the characteristics of the individual's current insurance coverage, 3) the individual's relationship with his or her usual provider and care coordination, 4) the use of after-hours care, and 5) health care affordability and medical debt.

With few exceptions, the MHRS relies on questions drawn from established, well-validated surveys.[12] 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.[13]

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 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 year),

11 Blendon, R.J., Buhr, T., Fleischfresser, C., and Benson, J.M. *The Massachusetts Health Reform Law: Public Opinion and Perception.* Boston, MA: Blue Cross Blue Shield of Massachusetts Foundation, 2006. Available at bluecrossfoundation.org/foundationroot/en_US/documents/2006HealthReformPollingreport.pdf.

12 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.

13 The MHRS instruments are available at www.urban.org/url.cfm?ID=411649.

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 year).

Survey response rate. The MHRS employs several strategies to increase the response rate to the survey. First, a $10 incentive is offered to all who complete the survey. Second, when addresses are available from reverse directory services, letters are sent to households that initially refused to complete the survey and to those households for whom six call attempts are made without an answer. Third, a toll-free number is provided in the letters to allow sample households to call in to complete the survey if they are motivated to do so. Finally, telephone numbers with no answers or voice messages are called at least 12 times, with attempts made at different times and days of the week. The 12 call attempts also include a rest period of at least seven days between the sixth and seventh calls.

The overall response rate for the survey in fall 2010 was 39.3 percent, which combines the response rates for the landline telephone sample (42 percent) and the cell phone sample (31 percent).[14] While responses rates for cell phone samples are generally lower than those for landline samples[15] 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 shows the trend in response rates for the landline component of the MHRS over time. These response rates are comparable to those achieved in other recent social science and health surveys, as is the decline in the response rate to the survey over time.[16]

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 NHIS estimates of the share of Massachusetts adults in households with landlines and cell phones.[17]

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.[18] 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 their being under-represented in the sample.

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14 The disposition codes used to calculate the response rates for the two components of the survey are consistent with the American Association for Public Opinion Research (AAPOR) standards.

15 Link, M.W., Daily, G., Shuttles, C.D., Bourquin, C., and Yancey, L.T. *Addressing the Cell Phone Only Problem: Cell Phone Sampling Versus Address Based Sampling.* Paper presented at the American Association of Public Opinion Research Conference. New Orleans, LA, 2008. Available at www.amstat.org/sections/srms/proceedings/y2008/Files/link.pdf.

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

17 Blumberg, S.J., Luke, J.V., Ganesh, N., et al. *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. Available at www.cdc.gov/nchs/data/nhsr/nhsr039.pdf.

18 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 [Internet]. Washington, DC: U.S. Census Bureau, 2002. Available at www.census.gov/prod/2002pubs/tp63rv.pdf.

The analyses in this report rely on the combined landline and cell phone sample. As shown in Appendix Exhibit II.1, the characteristics of the sample based on the landline-only sample and the characteristics of the sample based on the combined landline and cell phone samples were quite similar. As would be expected, however, adding in adults in cell phone-only households resulted in a sample that was somewhat younger, less likely to be married, and less likely to have children under 18.

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.[19] We used hot deck procedures[20] 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).

Error in family income in 2010. As noted above, the MHRS asks the survey respondent about family income relative to the federal poverty level for a family of the appropriate size based on a series of income categories (e.g., less than 100 percent of the FPL, between 100 and 150 percent of the FPL, etc.).[21] An error was made in assigning the income categories that were used in the 2010 MHRS questionnaire so that the 2010 family income categories do not match the income categories used in earlier years of the MHRS. Specifically, individuals in the 2010 MHRS were asked about family income relative to the federal poverty level for a family size one person larger than their actual family. For example, an individual in a 3-person family was asked to report family income using the income categories relative to poverty that would apply to a 4-person family.

To address this problem, we used information on the observed distribution of family income from the American Community Survey (ACS) for nonelderly adults who were similar to the adults in the MHRS sample. The ACS is a national survey conducted by the U.S. Census Bureau that provides large, representative samples for all fifty states and the District of Columbia, including a sample of about 80,000 individuals in Massachusetts. Since the ACS collects a continuous measure of family income, we were able to construct two measures of family income in the 2009 ACS:[22] one based on the income categories used in the 2010 MHRS (referred to as the "2010 MHRS income categories") and one based on the income categories that should have been used in the 2010 MHRS (referred to as the "correct income categories"). We used the ability to construct both family income measures in the ACS to map the family income responses in the 2010 MHRS based on the "2010 MHRS income categories" to the responses that would likely have been reported if the MHRS sample had been asked the "correct

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19 In order to identify adults within the income groups that are of relevance to the policy changes in Massachusetts, the MHRS asks about income relative to the federal poverty level. To facilitate asking about income in a telephone survey, the income cut-offs for the poverty level categories are rounded up to the nearest thousand dollars.

20 Hot deck imputation uses the reported values of variables for individuals who responded to the question to fill in or impute values for similar individuals with incomplete data. Hot deck imputation procedures are a common strategy for addressing item nonresponse in surveys and are used in the decennial census and many national surveys, including the Current Population Survey and the American Community Survey.

21 The specific income categories asked about in the MHRS have expanded over time to allow different income breaks in examining the characteristics of the population. For example, in the 2010 MHRS an income category was added to allow an examination of adults with family income at or below 138 percent of the FPL to reflect the new Medicaid eligibility standards under the *Patient Protection and Affordable Care Act* (ACA). The core income categories that have been tracked in the MHRS since fall 2006 are: less than 100 percent of the FPL, 100 up to 150 percent of the FPL, 150 up to 200 percent of the FPL, 200 up to 300 percent of the FPL, 300 up to 500 percent of the FPL, and 500 percent of the FPL or more.

22 The 2010 MHRS asks about income in the prior calendar year (i.e., 2009). The 2009 ACS asks respondents in 2009 about income over the last 12 months.

income categories.” Specifically, we matched the nonelderly adults in the MHRS to similar adults in the ACS based on their “2010 MHRS income category” and age, sex, race/ethnicity, education, family type, and family size. We then assigned the nonelderly adults in the MHRS the “correct income category” for an individual in the ACS who matched them on the variables listed above. As shown in Exhibit II.2, the income distribution in the MHRS was similar to that of the ACS based on the “2010 MHRS income categories” and, after the assignment process, similar to that of the ACS based on the “correct 2010 income categories.” (Because of the significant differences in the ACS and MHRS on a host of other dimensions, including survey design, survey content, question wording and placement, survey fielding strategies and time frame, and survey sponsorship, we would not expect an exact match of the income distributions in the ACS and MHRS based on either the “2010 MHRS income categories” or the “correct 2010 income categories.”)

While the error in the 2010 MHRS has introduced additional measurement error in the family income estimates for 2010 relative to earlier survey years, the core findings from the analyses are not sensitive to the income measure that is used—that is, an income measure using the reported income categories as opposed to an income measure using the adjusted income categories. This consistency in the findings is not surprising since controlling for the characteristics of the individual and his or her family (including family income) in the analysis of trends over time (discussed below) has little impact: simple trends and regression-adjusted trends in measures of insurance coverage, access to and use of care, and health care affordability are quite similar between 2006 and 2010.

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, employer-sponsored insurance (ESI), and non-group coverage, as well as the range of publicly funded programs.[23] 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 year, and whether the individual was ever insured over the past year. Unless otherwise noted, we use “uninsured” in the text to refer to individuals who are 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.[24] [25] 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

23 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.

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

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

coverage and all other types of insurance. An individual reporting both public coverage and ESI coverage (perhaps because they have 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

Trends over time from fall 2006 to fall 2010. In looking at trends over time, the study compares the outcomes for cross-sectional samples of adults in periods following the implementation of health reform (fall 2007, 2008, 2009, and 2010) to the outcomes for a similar cross-sectional sample of adults just prior to the implementation of health reform (fall 2006).[26] Any differences between the baseline time period (fall 2006) and the follow-up time periods (fall 2007, 2008, 2009, and 2010) 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; the severe economic recession that began in December 2007; and the initial implementation of some changes related to the ACA (e.g., the establishment of high-risk pools, the expansion of dependent coverage to adult children, etc.) in 2010. 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.[27] Exhibit II.3 summarizes the characteristics of the sample in each year of the survey, comparing the values in the follow-up years (2007 to 2010) to the value in the baseline year (2006)—with statistically significant differences indicated by asterisks (*)—and comparing the values in each year to the value in the prior year—with statistically significant differences indicated by carets (ˆ). While the characteristics of the samples for the survey have remained relatively stable from year to year, there have been changes over time. Two shifts to note are the improvement in self-reported health status (more of the nonelderly adults reported very good or excellent health in fall 2008, fall 2009, and fall 2010 relative to fall 2006)[28] and an increase in poverty (more of the nonelderly adults reported family income below 100 percent of the FPL in fall 2009 and fall 2010 than in fall 2006).[29]

For ease of comparison across models, we estimate linear probability models. All of the analyses were weighted and control for the complex design of the sample using the survey estimation procedures (svy) in Stata 11.[30] In the text, we focus on estimates that were statistically significant at the five percent level or better, unless otherwise noted.

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26 The fall 2006 survey was fielded as the Commonwealth Care program was beginning for adults with family income under 100 percent of the FPL; however, enrollment started slowly.

27 The variables in the model included age, sex, race/ethnicity, citizenship, marital status, education, employment, firm size, self-reported health status, disability status, whether the individual has chronic conditions or is pregnant, family income, and region fixed effects (to control for the average differences across regions). See Exhibit II.3 for more details on the variables included in the models. The analysis sample is limited to observations with complete data for the regression models.

28 While there are limitations associated with the use of self-reported health status to assess health across and within populations, the sustained increase in health status that is reported over time in the MHRS highlights the need to look at this issue with stronger measures of health. We examine the measure in more detail in an exploratory analysis reported in the next chapter.

29 Data from the American Community Survey for Massachusetts also show an increase in the share of nonelderly adults with family income below poverty over this time period (authors' tabulations).

30 StataCorp. Stata Statistical Software: Release 11. College Station, TX: StataCorp LP, 2009.

In presenting the estimates of trends over time, we report on the outcomes for adults in the state as of fall 2010 and estimates of how those adults would have fared in Massachusetts in earlier years. To calculate the latter, we use the parameter estimates from the regression models to predict the outcomes that the adults in the 2010 sample would have had if they had been observed in each of the preceding study years. This approach controls for changes in the characteristics of the sample of adults over time.

In examining trends over time, we provide estimates for the overall population of nonelderly adults in the state and for lower-income adults with family income less than 300 percent of the FPL—the target population for many of the reforms under Chapter 58. In addition to the regression-adjusted estimates that are reported in the text, simple (unadjusted) estimates are provided in Appendix B. The regression-adjusted estimates and the simple (unadjusted) estimates are generally quite similar.

Baseline for assessing the ACA. For the sections of the report that are focused on the state of working-age adults in Massachusetts in fall 2010, we rely on descriptive methods. We report on all working-age adults and on subgroups of working-age adults defined by family income and, for some analyses, by insurance coverage. As noted above, higher-income adults are defined as those with family income at or above 300 percent of the FPL and lower-income adults are those with family income less than 300 percent of the FPL. As in the trend analysis, we focus on estimates that were statistically significant at the five percent level or better, unless otherwise noted. All of the analyses were weighted and control for the complex design of the sample using the survey estimation procedures (svy) in Stata 11.

EXHIBIT II.1: RESPONSE RATES AND SAMPLE SIZES FOR THE MASSACHUSETTS HEALTH REFORM SURVEY, FALL 2006 TO FALL 2010

	LANDLINE SAMPLE		CELL PHONE SAMPLE	
	RESPONSE RATE	SAMPLE SIZE	RESPONSE RATE	SAMPLE SIZE
SURVEY YEAR				
2006	49%	3,007	—-	0
2007	45%	2,937	—-	0
2008	43%	4,041	—-	0
2009	45%	3,165	—-	0
2010	42%	2,418	31%	622

Note: The larger landline sample size in 2008 reflects oversamples of African American and Hispanic adults and oversamples by geographic areas that were added to that round of the Massachusetts Health Reform Survey.

EXHIBIT II.2: COMPARISON OF FAMILY INCOME DISTRIBUTION FOR NONELDERLY ADULTS IN THE 2010 MASSACHUSETTS HEALTH REFORM SURVEY (MHRS) AND 2009 AMERICAN COMMUNITY SURVEY (ACS) USING ALTERNATIVE INCOME CATEGORIES

	DISTRIBUTION BASED ON THE "2010 MHRS INCOME CATEGORIES"			DISTRIBUTION BASED ON THE "CORRECT 2010 INCOME CATEGORIES"		
	ACS	MHRS	DIFFERENCE	ACS	MHRS	DIFFERENCE
FAMILY INCOME RELATIVE TO THE FEDERAL POVERTY LEVEL (FPL)						
Less than 100% of FPL	20.6%	17.6%	3.0	16.9%	14.1%	2.8
100 to 138% of FPL	6.3%	8.5%	-2.2	5.5%	5.8%	-0.3
139 to 149% of FPL	1.2%	3.5%	-2.3	1.0%	1.1%	-0.1
150 to 199% of FPL	7.2%	7.5%	-0.3	6.0%	9.8%	-3.8
200 to 299% of FPL	15.4%	14.4%	0.3	12.0%	11.8%	0.2
300 to 399% of FPL	12.9%	12.5%	0.4	12.0%	11.2%	0.8
400 to 499% of FPL	10.4%	11.5%	-1.1	10.2%	11.0%	-0.8
500 to 599% of FPL	7.7%	7.8%	-0.1	8.5%	8.9%	-0.4
600% of FPL or more	18.3%	16.7%	1.6	28.0%	26.1%	1.9

Source: 2010 Massachusetts Health Reform Survey and 2009 American Community Survey.
Note: The "2010 MHRS Income Categories" are based on a family size one person larger than the individual's actual family size. The "Correct 2010 Income Categories" are based on the individual's actual family size.

EXHIBIT II.3: CHARACTERISTICS OF MASSACHUSETTS ADULTS 19 TO 64, FALL 2006 TO FALL 2010

	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010
PERCENT					
AGE					
19 to 25 years	14.1	13.8	12.4	14.2	16.7
26 to 34 years	17.7	19.1	17.9	17.6	17.3
35 to 49 years	38.9	39.8	38.6	38.1	35.2 * ^
50 to 64 years	29.3	27.2	31.2 ^^	30.0	30.7
RACE/ETHNICITY					
White, non-Hispanic	80.2	80.1	80.4	80.1	79.2
Non-white, non-Hispanic	13.0	13.3	12.2	12.2	12.6
Hispanic	6.8	6.6	7.5	7.7	8.1
FEMALE	52.3	52.3	51.3	51.7	51.0
U.S. CITIZEN	93.0	93.1	94.2	95.2 *	92.9 ^^
MARITAL STATUS					
Married	58.8	59.2	59.3	58.0	52.8 ** ^^
Living with partner	7.0	8.5	7.5	6.8	8.5
Divorced, separated, widowed	12.4	10.6 *	10.7	11.8	12.8
Never married	21.8	21.8	22.4	23.4	26.0 **
PARENT OF ONE OR MORE CHILDREN UNDER 18	45.5	45.3	46.0	44.6	39.0 ** ^^
EDUCATION					
Less than high school	5.3	6.3	6.1	5.1	5.4
High school graduate (includes some college)	50.8	51.7	48.1	49.4	48.4
College graduate or higher	43.9	42.0	45.8	45.5	46.2
WORK STATUS					
Full-time	52.0	54.3	52.2	49.4	52.2
Part-time	22.2	21.2	21.3	20.2	19.1 *
Not working	25.7	24.4	26.5	30.4 ** ^	28.7
SELF-EMPLOYED	8.4	8.9	9.2	7.9	9.7
WORKS AT A FIRM WITH FEWER THAN 51 EMPLOYEES	18.6	18.5	15.7 * ^	16.6	15.3 *
SELF-REPORTED HEALTH STATUS					
Very good or excellent	59.4	61.4	63.8 *	64.6 **	64.9 **
Good	27.3	26.7	23.4 ** ^	22.4 **	22.6 **
Fair or poor	13.2	11.9	12.8	13.0	12.5
ANY CHRONIC CONDITION[a]	51.8	52.1	53.1	52.6	50.7
Hypertension	20.0	20.9	21.0	20.7	20.3
Heart disease	4.1	3.7	4.4	3.4	4.4
Diabetes	6.7	7.3	6.3	7.1	6.9
Asthma	14.6	13.9	15.0	15.5	14.7

(continued)

EXHIBIT II.3 (CONTINUED)

	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010
ACTIVITIES ARE LIMITED BY HEALTH PROBLEM	18.0	16.7	17.5	18.2	17.8
FAMILY INCOME RELATIVE TO THE FEDERAL POVERTY LEVEL (FPL)					
Less than 100% of FPL	11.5	14.0	13.7	14.9 *	14.7 **
100-299% of FPL	29.7	27.3	26.9	26.2 *	29.2
300-499% of FPL	26.8	23.6	21.6 **	24.2	22.0 **
500% of FPL or more	31.9	35.1	37.9 **	34.6 ^	34.1
REGION					
Boston	10.2	9.5	11.0	11.3	11.5
MetroWest	32.2	32.5	33.0	32.9	32.8
Northeast	11.8	11.8	10.9	11.4	11.5
Central	12.3	12.6	12.8	12.2	12.2
West	12.6	12.9	12.5	12.9	12.6
Southeast	20.9	20.7	19.7	19.3	19.4

Source: 2006–2010 Massachusetts Health Reform Surveys (N=2,902 fall 2006; N=2,812 fall 2007; N=3,868 fall 2008; N=3,028 fall 2009; N=2,934 fall 2010).

*(**) Value for year is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.

^(^^) Value for year is significantly different from the value in the previous year 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. TRACKING CHANGES OVER TIME: TRENDS FROM FALL 2006 TO FALL 2010

KEY FINDINGS

- Health insurance coverage continues at high levels in Massachusetts, with coverage among nonelderly adults at 94.2 percent in fall 2010. This is well above the 86.6 percent in fall 2006, and unchanged from the coverage rate in fall 2009. In contrast, insurance coverage for nonelderly adults in the nation as a whole is much lower (78.5 percent in 2010) and has declined since 2006 (80.2 percent).

- A key factor in the continued high levels of insurance coverage in Massachusetts is the sustained role of employer-sponsored insurance (ESI) coverage. ESI coverage in fall 2010, at 68.0 percent, was higher than in fall 2006 (64.4 percent) and higher than in fall 2009 (67.1 percent). There is no evidence of public coverage "crowding out" employer-sponsored coverage under health reform in Massachusetts.

- There were sustained gains in access to and use of health care between fall 2006 and fall 2010 for nonelderly adults in Massachusetts. For example, nonelderly adults were more likely to have a place they usually go to when they are sick or need advice about their health (up 4.7 percentage points), more likely to have had a preventive care visit (up 5.9 percentage points), more likely to have had multiple doctor visits (up 5.0 percentage points), more likely to have had a specialist visit (up 3.7 percentage points), and more likely to have had a dental care visit (up 5.0 percentage points).

- Between fall 2006 and fall 2010, there were reductions in emergency department use overall (down 3.8 percentage points), frequent emergency department visits (down 1.9 percentage points), and the use of the emergency department for non-emergency conditions (down 3.8 percentage points). This is the first reduction in emergency department use among nonelderly adults in Massachusetts observed in the Massachusetts Health Reform Survey (MHRS).

- The reduced reliance on the emergency department among nonelderly adults may reflect many factors, including the increases in use of other types of health care (e.g., increases in preventive care visits, multiple doctor visits, specialist visits, and dental care) or increases in cost sharing under their health plans.

- Despite the continuing increase in health care costs in Massachusetts (which predates health reform), fewer nonelderly adults reported high out-of-pocket spending on health care, unmet need for care because of costs, and problems paying medical bills in fall 2010 than in fall 2006. These measures remained unchanged between fall 2009 and fall 2010.

- The share of nonelderly adults in Massachusetts reporting their health status as very good or excellent increased between fall 2006 and fall 2010 (from 46.7 percent to 53.2 percent). While encouraging, this finding highlights the need for studies assessing changes in health under health reform in Massachusetts using stronger measures.

- Support for health reform among nonelderly adults in Massachusetts remained strong in fall 2010, at 65.7 percent. This is not significantly different from that reported prior to health reform in fall 2006 (68.5 percent) or from that in fall 2009 (66.9 percent). However, among the remaining adults, there has been a shift in the share opposed to health reform. In fall 2006, 14.5 percent of nonelderly adults reported neither supporting nor opposing reform, while 17.0 percent were opposed to reform. By fall 2010, 26.9 percent of adults opposed reform and only 7.4 percent reported neither supporting nor opposing reform.

This chapter examines trends over time in health insurance coverage, access to and use of health care, health care costs and affordability, and attitudes toward health reform for nonelderly adults in Massachusetts. In addition, although there are limitations to self-reported health status as a measure to assess changes in health over time, we present an examination of trends in that measure of health status as part of an exploratory analysis to encourage more research on the implications of health reform for the health of Massachusetts residents. In this chapter, we focus on the period from fall 2006 to fall 2010, reporting on nonelderly adults overall and lower-income nonelderly adults in particular.

A. ALL NONELDERLY ADULTS

Insurance coverage. In fall 2010, 94.2 percent of nonelderly adults in Massachusetts were insured (Figure III.1). [31] This level is well above the fall 2006 rate of insurance coverage in Massachusetts, which was just prior to the implementation of key elements of the state's health reforms. This upward trend in coverage persists, whether the comparison is based on a regression-adjusted estimate (86.6 percent) or a simple, unadjusted estimate (86.9 percent).[32] As noted above, we focus on the regression-adjusted estimates in the body of this report, with unadjusted estimates provided in Appendix B.

Insurance coverage in Massachusetts has remained high despite the economic recession, with no significant change in the insurance rate between fall 2009 and fall 2010 (Exhibit III.1).[33] However, there does appear to have been a shift in coverage type over that period: employer-sponsored insurance coverage increased (from 67.1 percent to 68.0 percent) and public and other coverage decreased (from 27.4 percent to 26.2 percent) over the fall 2009 to fall 2010 period. This increase in ESI coverage reflects a significant increase in the share of adults who report obtaining their coverage through a family member, such as a parent or spouse. This may be attributable to the expansion of dependent coverage under the *Patient Protection and Affordable Care Act* (ACA), which would have given some young adults in Massachusetts with parents living in other states access to dependent coverage through a parent's ESI coverage, something that was not available with the dependent coverage expansion under Massachusetts' health reform law (Chapter 58).

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31 The estimate for the uninsurance rate for nonelderly adults from the MHRS for fall 2010, at 5.8 percent, is higher than the 2.9 percent estimate from the 2009 Massachusetts Health Insurance Survey (MHIS) which was fielded in the spring of 2010 (see www.mass.gov/Eeohhs2/docs/dhcfp/r/pubs/10/mhis_report_12-2010.pdf). In addition to asking about insurance coverage for different periods of time, the MHRS and MHIS differ on other dimensions that can contribute to differences in the estimated uninsurance rate. For a discussion of differences in insurance estimates in Massachusetts, see Long, S.K., Zuckerman, S., Triplett, T., Cook, A., Nordahl, K., Siegrist, T., and Wacks, C. *Estimates of the Uninsurance Rate in Massachusetts from Survey Data: Why Are They So Different?* Boston, MA: Massachusetts Division of Health Care Finance and Policy, 2008. Available at www.mass.gov/Eeohhs2/docs/dhcfp/r/pubs/08/est_of_uninsur_rate.pdf.

32 Unless otherwise noted, the differences discussed in the text were statistically significant at the five percent level or better.

33 This pattern in consistent with data from the Massachusetts Division of Health Care Finance and Policy, which shows quite similar levels of insurance coverage in the state between 2009 (5.473 million) and 2010 (5.467 million). See Massachusetts Division of Health Care Finance and Policy. *Health Care in Massachusetts: Key Indicators, February 2011 Edition (Release in July 2011).* Boston, MA: Massachusetts Division of Health Care Finance and Policy, 2011. Available at http://www.mass.gov/Eeohhs2/docs/dhcfp/r/pubs/11/2011_key_indicators_february.pdf.

Overall, ESI coverage in Massachusetts in fall 2010 was higher than in fall 2006, with more than two-thirds of nonelderly adults covered by an employer in fall 2010. With ESI coverage nearly four percentage points higher in fall 2010 than it was prior to health reform, there is no evidence that public coverage has "crowded out" ESI coverage under health reform.

Consistent with the gains in insurance coverage in fall 2010, there were sustained reductions in the share of nonelderly adults who were uninsured at the time of the survey, the share always uninsured over the prior year, and the share ever uninsured over the prior year. Massachusetts continued to report low levels of uninsurance in fall 2010, with 5.8 percent of nonelderly adults estimated to be uninsured at the time of the survey and 2.9 percent uninsured for the full year. Comparable measures for nonelderly adults in the nation as a whole were 21.5 percent and 16.0 percent, respectively, based on early release estimates from the 2010 National Health Interview Survey (NHIS).[34] Further, while uninsurance in Massachusetts dropped between 2006 and 2010 for nonelderly adults, uninsurance for that population in the rest of the nation rose—up from 19.8 percent in 2006 to 21.5 percent in 2010.

Access to and use of health care. Coincident with maintaining the gains in health insurance coverage, Massachusetts has largely maintained the gains in access to and use of health care that were achieved under health reform (Exhibit III.2). For example, between fall 2006 and fall 2010, nonelderly adults were more likely to have a place they usually go to when they are sick or need advice about their health (up 4.7 percentage points), more likely to have had a preventive care visit (up 5.9 percentage points), more likely to have had multiple doctor visits (up 5.0 percentage points), more likely to have had a specialist visit (up 3.7 percentage points), and more likely to have had a dental care visit (up 5.0 percentage points).[35] Perhaps reflecting these long-term gains in access to health care and health care use among nonelderly adults in Massachusetts, there was a drop in the share of adults reporting a general doctor visit between fall 2009 and fall 2010.[36]

Additional evidence of gains in access to care in Massachusetts is provided by the decline in emergency department (ED) use between fall 2006 and fall 2010. Relative to fall 2006, the shares of nonelderly adults reporting any ED visit, multiple ED visits (defined as three or more visits over the year), and ED visits that were reported to be for non-emergency conditions[37] were all lower in fall 2010. Much of the drop in ED visits occurred between fall 2009 and fall 2010. The reduction in multiple ED visits and ED visits for non-emergency conditions, in particular, are patterns of care that are consistent with improvements in access to care and improved care delivery in the community.[38] [39]

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34 Cohen, R.A. and Martinez, M.E. *Health Insurance Coverage: Early Release of Estimates from the National Health Interview Survey, January–March 2010.* Hyattsville, MD: National Center for Health Statistics, 2011. Available at www.cdc.gov/nchs/data/nhis/earlyrelease/insur201009.htm. Estimates are for adults 18 to 64 years old.

35 Beyond the changes in access to dental care introduced under Chapter 58, dental care benefits were reduced under MassHealth and Commonwealth Care in July 2010, with the Health Safety Net paying for some dental services for some enrollees in those programs.

36 While we do not have data for earlier years, a new measure collected in the 2010 MHRS shows that more than one-third of nonelderly adults in Massachusetts reported a visit to a nurse practitioner, physician assistant, or midwife in place of a general doctor over the past 12 months.

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

38 Using administrative data on total emergency department use in the state, the Massachusetts Division of Health Care Finance and Policy also shows a decline in population-adjusted ED use overall and for preventable/avoidable visits in 2009 relative to earlier years. See Eccleston, E. *Challenges in Coordination of Health Care Services.* Boston, MA: Massachusetts Division of Health Care Finance and Policy, 2011. Available at http://www.mass.gov/Eeohhs2/docs/dhcfp/cost_trend_docs/cost_trends_docs_2011/Eccleston_Stacey_DHCFP_Primary_Care_Access.pdf.

39 This decline in ED use by fall 2010 may also reflect 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. Available at http://www.mass.gov/Eeohhs2/docs/dhcfp/cost_trend_docs/cost_trends_docs_2011/Eccleston_Stacey_DHCFP_Primary_Care_Access.pdf.

Along with the higher levels of general and preventive health care use under health reform and the decline in ED use, there has been an increase in the share of adults rating the quality of the care they have received as very good or excellent. This measure of quality reflects the individual's experience with health care over the past year rather than a measure of clinical quality. In fall 2010, 68.4 percent of adults rated the quality of their care as very good or excellent, as compared to 63.8 percent in fall 2006. There was no change in the share of nonelderly adults rating the quality of their care as very good or excellent between fall 2009 and fall 2010.

Another element of access to care is the ability to obtain needed care in a timely manner. Nonelderly adults in Massachusetts were much less likely to report that they delayed or did not get needed care for any reason in fall 2010 relative to fall 2006, with the share down 5.1 percentage points over the period (Exhibit III.3). Reductions were reported for delayed care or unmet need for doctor care; medical tests, treatment, or follow-up care; preventive care screenings; and dental care. There were no significant changes in these measures between fall 2009 and fall 2010.

Focusing more narrowly on unmet need for care over the past 12 months, we find some continued improvements in fall 2010 relative to fall 2006, with reductions in unmet need for doctor care; medical tests, treatment, or follow-up care; and preventive care screening. However, there is evidence of some lost ground since fall 2009, as the overall share of adults who did not receive needed care in fall 2010 was up 3.0 percentage points from the share in fall 2009 (22.8 percent as compared to 19.8 percent). Notwithstanding that change, there were no significant differences in any of the specific categories of unmet need between fall 2009 and fall 2010.

Affordability of health care. Despite increasing health care costs in the state (a trend that predates reform), some of the gains in the affordability of health care for nonelderly adults under health reform have persisted over time, including a reduced burden of out-of-pocket (OOP) health care costs and less unmet need for care because of costs (Exhibit III.4). As shown, the share of nonelderly adults spending 10 percent or more of family income on OOP health care costs was lower in fall 2010 than fall 2006—down from 9.8 percent to 6.1 percent.[40] Consistent with the lower burden of high OOP health care costs, the share of adults reporting unmet need for care because of costs was lower in fall 2010 for most of the types of care examined, including doctor care; specialist care; medical tests, treatment, or follow-up care; and preventive care screenings. However, we find no significant changes in the share of adults reporting problems paying medical bills or medical debt between fall 2006 and fall 2010. We also find no significant changes between fall 2009 and fall 2010 in any of the measures of the affordability of health care for nonelderly adults.

Finally, despite the gains in affordability of care for individuals in the state under health reform, we continue to find in fall 2010, as in fall 2006, that roughly one in five nonelderly adults in Massachusetts reported problems paying medical bills over the past year, and one in five reported medical debt that they were paying off over time.

B. LOWER-INCOME NONELDERLY ADULTS

Lower-income adults were a target population for many of the elements of Massachusetts' 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 lower-income adults in the state, including significant gains in coverage, access to and use of care, and the affordability of care.[41] Those gains persisted in fall 2010.

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40 Because of the way income data is collected in the survey, the measures of spending relative to family income cannot be constructed for adults with family income above 500 percent of the federal poverty level.

41 Long, S.K. and Stockley, K. *Health Reform in Massachusetts: An Update as of Fall 2009*. Boston, MA: Blue Cross Blue Shield of Massachusetts Foundation, 2010. Available at bluecrossfoundation.org/~/media/Files/Publications/Policy percent20Publications/060810MHRS2009FINAL.pdf.

As shown in Exhibit III.5, lower-income adults reported significant increases in insurance coverage, with both ESI coverage and public and other coverage higher in fall 2010 than in fall 2006. The net result was a drop in the uninsurance rate for lower-income adults from 24.1 percent in fall 2006 to 9.9 percent in fall 2010. The uninsurance rate in fall 2010 represents a slight, but not statistically significant, increase over uninsurance in fall 2009 (9.6 percent).

With the increase in insurance coverage, access to and use of health care improved for lower-income adults (Exhibit III.6). Relative to fall 2006, lower-income adults were more likely to have a usual source of care (including a doctor's office or clinic as their usual source of care) and to have had preventive care visits, multiple doctor visits, specialist visits, and dental care visits in fall 2010. However, unlike the broader category of all adults, lower-income adults were no more likely to rate the quality of care that they received as very good or excellent under health reform in fall 2010 than in fall 2006.

In looking at health care use over the past year, we see that, as was true for nonelderly adults overall, lower-income nonelderly adults were less likely to have a general doctor visit in fall 2010 than fall 2009. The lower-income adults were also less likely to have had emergency department visits over the last year; however, those changes in emergency department use are not statistically significant.

In addition to the gains in health care use, lower-income nonelderly adults also reported reductions in delaying or not getting some types of needed care between fall 2006 and fall 2010, such as doctor care; specialist care; medical tests, treatment, or follow-up care; and dental care (Exhibit III.7). As was true for nonelderly adults overall, the levels of unmet need were generally similar in fall 2009 and fall 2010 for the specific types of services examined. However, the overall level of unmet need was nearly 5 percentage points higher in fall 2010 (31.6) than fall 2009 (26.8) among the lower-income group.

Finally, even with the continuing rise in health care costs in Massachusetts, there were some improvements in the affordability of health care for lower-income adults between fall 2006 and fall 2010 (Exhibit III.8). In fall 2010, lower-income adults were less likely to have high OOP health care spending relative to family income, less likely to have unmet need for care because of cost, and less likely to have problems paying medical bills than in fall 2006. There has, however, been some loss of ground over the past year. While overall unmet need for care because of costs was lower in fall 2010 than fall 2006, unmet need for any reason (which includes costs and other factors, such as difficulty getting an appointment for care or transportation problems) increased over the last year—rising from 15.3 percent in fall 2009 to 19.4 percent in fall 2010.

C. ATTITUDES TOWARD HEALTH REFORM

In fall 2006, 68.5 percent of all nonelderly adults in Massachusetts reported that they supported the state's health reform initiative (Figure III.2).[42] The level of support in fall 2010, while still relatively high, had declined to 65.7 percent of adults, although the change was not statistically significant. As in prior years, the majority of the adults across different subgroups of the state's population continued to support health reform in the state in fall 2010 (Exhibit III.9). However, notwithstanding the steady support for health reform by a majority of nonelderly adults in the state, there has been a shift among the remaining adults. Among the adults who do not support health reform, there has been a shift from reporting neither support nor opposition to reform toward reporting opposition to reform. In fall 2006, 14.5 percent of nonelderly adults reported neither supporting nor opposing reform, while 17.0 percent were opposed to reform. By fall 2010, only 7.4 percent reported neither supporting nor opposing reform, and 26.9 percent of adults reported opposition to reform. As with support for health reform, opposition to reform was reported across subgroups of the state's population (Exhibit III.10).

42 Unlike the other analyses in this chapter, the examination of trends over time in attitudes toward health reform is not based on regression-adjusted estimates.

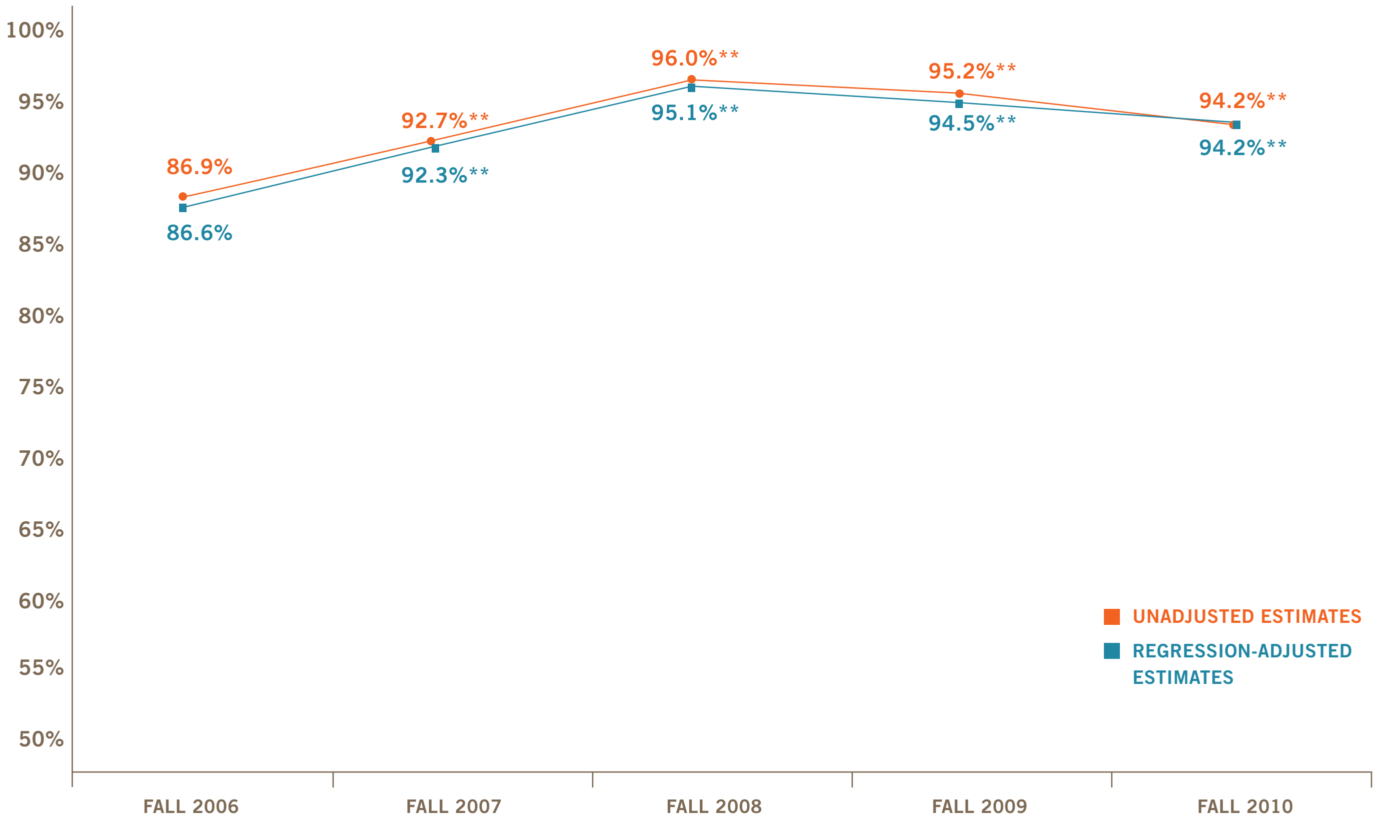
D. SELF-REPORTED HEALTH STATUS

In this section, we report on an exploratory analysis of the changes in self-reported health status among nonelderly adults between fall 2006 and fall 2010 in Massachusetts. The measure of self-reported health status included in the MHRS is based on a question that is asked in many health surveys: "In general, would you say that your health is excellent, very good, good, fair, or poor?" This measure provides a subjective assessment of how people feel about their health. While there are limitations associated with the use of self-reported health status to assess health across and within populations, the sustained increase in health status that is reported over time in the MHRS highlights the need to look at this issue with stronger measures.

In Exhibit III.11, we examine changes in self-reported health status for nonelderly adults between fall 2006 and fall 2010, controlling for other characteristics of the sample using the same basic regression framework as that used in the models of insurance coverage, access to and use of care, and affordability of care.[43] These regression-adjusted estimates show strong and sustained gains in the share of nonelderly adults who report their health status as very good or excellent, increasing from 59.7 percent in fall 2006 to 63.9 percent in fall 2008, 64.8 percent in fall 2009, and 64.9 percent in fall 2010. This shift was driven by a decline in the share of nonelderly adults who reported their health status as good over the period, as there was no change in the share of adults reporting fair or poor health status.

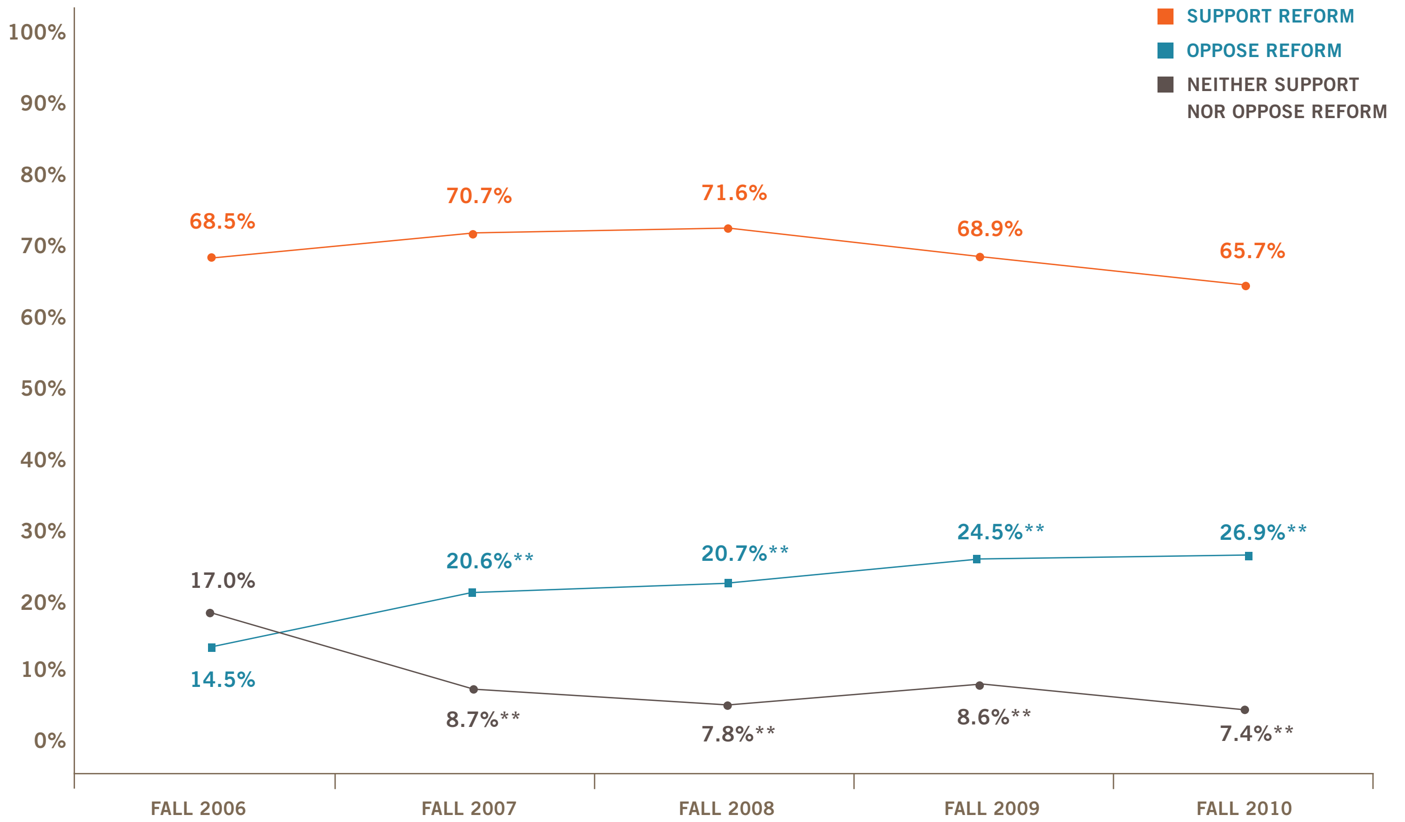
43 In this case, the regression model does not include self-reported health status as a control variable.

FIGURE III.1: TRENDS IN HEALTH INSURANCE COVERAGE FOR ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2010



Source: 2006–2010 Massachusetts Health Reform Surveys (N=15,544).
Note: The regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, health status, disability status, whether the individual has chronic conditions or is pregnant, family income, and region-level fixed effects. Regression-adjusted estimates are predicted values calculated using the parameter estimates from the regression models to predict the outcomes that the individuals in the 2010 sample would have had if they had been observed in each of the preceding study years.
*(**) Significantly different from fall 2006 at the .05 (.01) level, two-tailed test.

FIGURE III.2: TRENDS IN ATTITUDES TOWARD HEALTH REFORM AMONG ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2010



Source: 2006–2010 Massachusetts Health Reform Surveys (N=15,544).
Note: These are simple (unadjusted) estimates.
*(**) Significantly different from fall 2006 at the .05 (.01) level, two-tailed test.

EXHIBIT III.1: REGRESSION-ADJUSTED TRENDS IN HEALTH INSURANCE COVERAGE FOR ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2010

	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010
PERCENT					
Current insurance coverage					
Any insurance coverage	86.6	92.3 **	95.1 ** ^^	94.5 **	94.2 **
Employer-sponsored insurance (ESI) coverage	64.4	67.2 **	69.3 **	67.1 ** ^	68.0 ** ^^
In own name	42.3	41.4	41.5	42.4	41.4
In family member's name	22.1	25.8 *	27.8 **	24.6 ^	26.6 ** ^^
Public or other coverage	22.2	25.1 **	25.8 **	27.4 **	26.2 ** ^^
Uninsured	13.4	7.7 **	4.9 ** ^^	5.5 **	5.8 **
Uninsurance over the past year					
Always uninsured	8.8	5.0 **	2.3 ** ^^	3.1 **	2.9 **
Ever uninsured	19.5	15.7 **	11.6 ** ^^	10.8 **	12.1 **
Never uninsured	80.5	84.3 **	88.4 ** ^^	89.2 **	87.9 **
PERCENTAGE POINT CHANGE FROM FALL 2006					
Current insurance coverage					
Any insurance coverage		5.8 **	8.6 ** ^^	7.9 **	7.6 **
ESI coverage		2.8 **	4.9 **	2.7 ** ^	3.7 ** ^^
In own name		-0.9	-0.8	0.1	-0.9
In family member's name		3.7 *	5.7 **	2.5 ^	4.5 ** ^^
Public or other coverage		2.9 **	3.6 **	5.2 **	4.0 ** ^^
Uninsured		-5.8 **	-8.6 ** ^^	-7.9 **	-7.6 **
Uninsurance over the past year					
Always uninsured		-3.7 **	-6.5 ** ^^	-5.7 **	-5.8 **
Ever uninsured		-3.8 **	-7.9 ** ^^	-8.7 **	-7.4 **
Never uninsured		3.8 **	7.9 ** ^^	8.7 **	7.4 **

Source: 2006–2010 Massachusetts Health Reform Surveys (N=15,544).
Note: The regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, health status, disability status, whether the individual has chronic conditions or is pregnant, family income, and region-level fixed effects. Regression-adjusted estimates are predicted values calculated using the parameter estimates from the regression models to predict the outcomes that the individuals in the 2010 sample would have had if they had been observed in each of the preceding study years. Unadjusted estimates are provided in Appendix B. The estimates of percentage point changes reported in the bottom panel may not equal the difference between the values in the top panel due to rounding.
*(**) Value for year is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) Value for year is significantly different from the value in the previous year at the .05 (.01) level, two-tailed test.

EXHIBIT III.2: REGRESSION-ADJUSTED TRENDS IN HEALTH CARE ACCESS AND USE FOR ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2010

	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010
PERCENT					
Has a usual source of care (excluding the emergency department [ED])	85.7	87.8	91.2 ** ^^	89.0 * ^	90.4 **
Usual source of care is doctor's office or clinic	65.0	67.8	71.1 ** ^	71.3 **	72.0 **
Any general doctor visit in past 12 months	79.5	80.6	84.1 ** ^^	85.2 **	81.7 ^^
Visit for preventive care	69.9	72.5	76.2 ** ^	76.7 **	75.8 **
Multiple doctor visits	64.7	63.0	68.6 * ^^	69.9 **	69.7 **
Any specialist visit in past 12 months	50.0	48.5	52.6 ^	52.4	53.7 *
Any dental care visit in past 12 months	67.9	71.1	74.9 ** ^	73.6 **	72.9 **
Any hospital stay in the past 12 months (excluding for birth)	11.4	10.1	10.9	10.0	9.4 *
Took any prescription drugs in past 12 months	54.5	53.9	58.9 ** ^^	57.6	57.1
Any ED visits in past 12 months	34.2	34.1	33.2	33.8	30.4 * ^
Three or more ED visits	9.0	8.8	8.2	8.9	7.1 *
Most recent ED visit was for non-emergency condition[a]	16.0	15.2	14.6	14.8	12.2 ** ^
Among those who used care in the past 12 months, share rating quality of care as very good or excellent	63.8	71.7 **	68.9 **	68.1 *	68.4 **
PERCENTAGE POINT CHANGE FROM FALL 2006					
Has a usual source of care (excluding the ED)		2.1	5.5 ** ^^	3.3 * ^	4.7 **
Usual source of care is doctor's office or clinic		2.9	6.1 ** ^	6.3 **	7.0 **
Any general doctor visit in past 12 months		1.1	4.5 ** ^^	5.7 **	2.1 ^^
Visit for preventive care		2.6	6.4 ** ^	6.8 **	5.9 **
Multiple doctor visits		-1.6	3.9 * ^^	5.2 **	5.0 **
Any specialist visit in past 12 months		-1.5	2.6 ^	2.4	3.7 *
Any dental care visit in past 12 months		3.2	7.0 ** ^	5.7 **	5.0 **
Any hospital stay in the past 12 months (excluding for birth)		-1.2	-0.4	-1.3	-1.9 *
Took any prescription drugs in past 12 months		-0.6	4.4 ** ^^	3.0	2.6
Any ED visits in past 12 months		-0.1	-1.0	-0.4	-3.8 * ^
Three or more ED visits		-0.2	-0.8	-0.2	-1.9 *
Most recent ED visit was for non-emergency condition[a]		-0.8	-1.5	-1.2	-3.8 ** ^
Among those who used care in the past 12 months, share rating quality of care as very good or excellent		7.9 **	5.1 **	4.2 *	4.6 **

Source: 2006–2010 Massachusetts Health Reform Surveys (N=15,544).

Note: The regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, health status, disability status, whether the individual has chronic conditions or is pregnant, family income, and region-level fixed effects. Regression-adjusted estimates are predicted values calculated using the parameter estimates from the regression models to predict the outcomes that the individuals in the 2010 sample would have had if they had been observed in each of the preceding study years. Unadjusted estimates are provided in Appendix B. The estimates of percentage point changes reported in the bottom panel may not equal the difference between the values in the top panel due to rounding.

*(**) Value for year is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.

^(^^) Value for year is significantly different from the value in the previous year 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 III.3: REGRESSION-ADJUSTED TRENDS IN DELAYED OR UNMET NEED FOR CARE FOR ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2010

	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010
PERCENT					
Delayed getting or did not get needed care in past 12 months	43.5	38.4 *	39.3 *	37.8 **	38.3 **
Doctor care	16.6	12.9 **	13.1 *	13.2 *	13.3 *
Specialist care	14.6	9.9 **	13.0 ^	12.2	12.3
Medical tests, treatment, or follow-up care	17.0	12.8 **	14.8 *	13.5 **	13.8 **
Preventive care screening	11.5	9.7	10.3	9.6 *	8.5 **
Prescription drugs	13.6	9.8 **	12.4 ^	11.3 *	12.0
Dental care	25.6	21.5 *	22.8	21.6 *	21.8 *
Did not get needed care in past 12 months	25.4	20.7 **	22.2 *	19.8 **	22.8 ^
Doctor care	8.1	5.7 **	6.9	5.7 **	5.8 *
Specialist care	7.0	3.8 **	7.4 ^^	5.0 * ^^	5.6
Medical tests, treatment, or follow-up care	9.2	5.9 **	7.8 ^	5.9 ** ^	7.0 **
Preventive care screening	6.9	5.5	5.6	4.9 **	4.4 **
Prescription drugs	7.9	5.4 **	6.4	5.7 **	6.5
Dental care	12.5	9.2 **	11.7 ^	9.4 ** ^	11.4
PERCENTAGE POINT CHANGE FROM FALL 2006					
Delayed getting or did not get needed care in past 12 months		-5.0 *	-4.1 *	-5.7 **	-5.1 **
Doctor care		-3.7 **	-3.5 *	-3.4 *	-3.3 *
Specialist care		-4.6 **	-1.6 ^	-2.4	-2.2
Medical tests, treatment, or follow-up care		-4.3 **	-2.3 *	-3.6 **	-3.2 **
Preventive care screening		-1.7	-1.2	-1.8 *	-3.0 **
Prescription drugs		-3.8 **	-1.2 ^	-2.2 *	-1.5
Dental care		-4.1 *	-2.9	-4.0 *	-3.9 *
Did not get needed care in past 12 months		-4.7 **	-3.2 *	-5.6 **	-2.6 ^
Doctor care		-2.5 **	-1.3	-2.4 **	-2.3 *
Specialist care		-3.2 **	0.4 ^^	-2.0 * ^^	-1.4
Medical tests, treatment, or follow-up care		-3.4 **	-1.5 ^	-3.4 ** ^	-2.3 **
Preventive care screening		-1.4	-1.3	-1.9 **	-2.5 **
Prescription drugs		-2.6 **	-1.5	-2.2 **	-1.4
Dental care		-3.3 **	-0.8 ^	-3.1 ** ^	-1.1

Source: 2006–2010 Massachusetts Health Reform Surveys (N=15,544).
Note: The regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, health status, disability status, whether the individual has chronic conditions or is pregnant, family income, and region-level fixed effects. Regression-adjusted estimates are predicted values calculated using the parameter estimates from the regression models to predict the outcomes that the individuals in the 2010 sample would have had if they had been observed in each of the preceding study years. Unadjusted estimates are provided in Appendix B. The estimates of percentage point changes reported in the bottom panel may not equal the difference between the values in the top panel due to rounding.

*(**) Value for year is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.

^(^^) Value for year is significantly different from the value in the previous year at the .05 (.01) level, two-tailed test.

EXHIBIT III.4: REGRESSION-ADJUSTED TRENDS IN HEALTH CARE SPENDING, MEDICAL BILLS, MEDICAL DEBT, AND UNMET NEED FOR CARE BECAUSE OF COSTS FOR ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2010

	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010
PERCENT					
Out-of-pocket (OOP) health care spending over the past 12 months relative to family income for those less than 500% of the federal poverty level (FPL)[a]					
At 5% or more of family income	22.5	16.4 **	19.1	17.9 *	17.8
At 10% or more of family income	9.8	5.6 **	7.9 ^	6.4 **	6.1 **
Had problems paying medical bills in past 12 months	19.4	15.9 **	17.2	19.1	17.5
Have medical bills that are paying off over time	19.2	16.9	19.1	19.8	20.2
Had problems paying other bills in past 12 months	23.4	22.1	23.4	25.1	25.2
Did not get needed care because of costs in the past 12 months	16.6	11.2 **	11.7 **	11.9 **	13.6 *
Doctor care	5.7	2.9 **	2.8 **	2.9 **	3.2 **
Specialist care	4.8	2.2 **	3.4 * ^	2.6 **	2.7 **
Medical tests, treatment, or follow-up care	6.0	2.3 **	3.6 ** ^	2.8 **	3.7 **
Preventive care screening	3.5	2.0 **	2.3 *	2.4 *	2.3 *
Prescription drugs	5.3	3.4 **	3.7 **	3.6 **	4.4
Dental care	10.0	6.4 **	7.8 *	7.0 **	7.8
PERCENTAGE POINT CHANGE FROM FALL 2006					
OOP health care spending over the past 12 months relative to family income for those less than 500% of FPL[a]					
At 5% or more of family income		-6.1 **	-3.3	-4.6 *	-4.6
At 10% or more of family income		-4.1 **	-1.9 ^	-3.4 **	-3.7 **
Had problems paying medical bills in past 12 months		-3.5 **	-2.2	-0.3	-1.9
Have medical bills that are paying off over time		-2.3	-0.1	0.6	1.0
Had problems paying other bills in past 12 months		-1.3	-0.0	1.7	1.7
Did not get needed care because of costs in the past 12 months		-5.5 **	-4.9 **	-4.7 **	-3.0 *
Doctor care		-2.8 **	-3.0 **	-2.9 **	-2.5 **
Specialist care		-2.7 **	-1.5 * ^	-2.2 **	-2.1 **
Medical tests, treatment, or follow-up care		-3.7 **	-2.5 ** ^	-3.3 **	-2.4 **
Preventive care screening		-1.5 **	-1.1 *	-1.0 *	-1.1 *
Prescription drugs		-2.0 **	-1.7 **	-1.7 **	-1.0
Dental care		-3.6 **	-2.1 *	-2.9 **	-2.1

Source: 2006–2010 Massachusetts Health Reform Surveys (N=15,544).
Note: The regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, health status, disability status, whether the individual has chronic conditions or is pregnant, family income, and region-level fixed effects. Regression-adjusted estimates are predicted values calculated using the parameter estimates from the regression models to predict the outcomes that the individuals in the 2010 sample would have had if they had been observed in each of the preceding study years. Unadjusted estimates are provided in Appendix B. The estimates of percentage point changes reported in the bottom panel may not equal the difference between the values in the top panel due to rounding.
*(**) Value for year is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) Value for year is significantly different from the value in the previous year 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 percent of FPL.

EXHIBIT III.5: REGRESSION-ADJUSTED TRENDS IN HEALTH INSURANCE COVERAGE FOR LOWER-INCOME ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2010

	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010
PERCENT					
Current insurance coverage					
Any insurance coverage	75.9	86.1 **	91.9 ** ^^	90.4 **	90.1 **
Employer-sponsored insurance (ESI) coverage	35.8	40.1 *	43.5 **	40.4 *	41.9 **
In own name	21.5	24.5	23.6	24.5	25.2 *
In family member's name	14.3	15.6	19.9 ** ^	15.9	16.7
Public or other coverage	40.1	46.0 **	48.4 **	49.9 **	48.2 **
Uninsured	24.1	13.9 **	8.1 ** ^^	9.6 **	9.9 **
Uninsurance over the past year					
Always uninsured	15.7	9.5 **	3.9 ** ^^	5.7 **	4.9 **
Ever uninsured	35.7	26.9 **	19.0 ** ^^	18.1 **	20.2 **
Never uninsured	64.3	73.1 **	81.0 ** ^^	81.9 **	79.8 **
PERCENTAGE POINT CHANGE FROM FALL 2006					
Current insurance coverage					
Any insurance coverage		10.3 **	16.0 ** ^^	14.5 **	14.3 **
ESI coverage		4.3 *	7.7 **	4.6 *	6.1 **
In own name		3.0	2.1	3.0	3.7 *
In family member's name		1.3	5.6 ** ^	1.6	2.4
Public or other coverage		6.0 **	8.3 **	9.9 **	8.1 **
Uninsured		-10.3 **	-16.0 ** ^^	-14.5 **	-14.3 **
Uninsurance over the past year					
Always uninsured		-6.3 **	-11.8 ** ^^	-10.1 **	-10.9 **
Ever uninsured		-8.8 **	-16.7 ** ^^	-17.6 **	-15.5 **
Never uninsured		8.8 **	16.7 ** ^^	17.6 **	15.5 **

Source: 2006–2010 Massachusetts Health Reform Surveys (N=7,769).
Note: Lower-income is defined as less than 300 percent of the federal poverty level (FPL). The regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, health status, disability status, whether the individual has chronic conditions or is pregnant, family income, and region-level fixed effects. Regression-adjusted estimates are predicted values calculated using the parameter estimates from the regression models to predict the outcomes that the individuals in the 2010 sample would have had if they had been observed in each of the preceding study years. Unadjusted estimates are provided in Appendix B. The estimates of percentage point changes reported in the bottom panel may not equal the difference between the values in the top panel due to rounding.
*(**) Value for year is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) Value for year is significantly different from the value in the previous year at the .05 (.01) level, two-tailed test.

EXHIBIT III.6: REGRESSION-ADJUSTED TRENDS IN HEALTH CARE ACCESS AND USE FOR LOWER-INCOME ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2010

	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010
PERCENT					
Has a usual source of care (excluding the emergency department [ED])	78.5	81.7	86.5 ** ^^	83.6 *	84.2 *
Usual source of care is doctor's office or clinic	48.4	55.3 *	57.1 **	55.7 **	58.0 **
Any general doctor visit in past 12 months	74.7	74.7	79.2	82.8 **	77.9
Visit for preventive care	64.5	68.2	71.8 **	73.5 **	72.1 **
Multiple doctor visits	61.0	58.0	65.7 ^^	69.1 **	68.5 **
Any specialist visit in past 12 months	46.1	43.2	49.4 ^	49.8	51.7 *
Any dental care visit in past 12 months	49.7	57.1 **	63.8 ** ^	60.9 **	60.5 **
Any hospital stay in the past 12 months (excluding for birth)	14.9	13.7	14.3	14.7	12.4
Took any prescription drugs in past 12 months	54.8	53.7	59.2 * ^	60.7 *	55.9
Any ED visits in past 12 months	45.3	46.4	44.6	45.2	42.4
Three or more ED visits	15.9	16.2	14.7	14.3	12.6
Most recent ED visit was for non-emergency condition[a]	22.9	22.8	20.8	21.2	18.8
Among those who used care in the past 12 months, share rating quality of care as very good or excellent	52.9	61.5 **	57.9	62.3 **	58.2
PERCENTAGE POINT CHANGE FROM FALL 2006					
Has a usual source of care (excluding the ED)		3.2	8.0 ** ^^	5.1 *	5.7 *
Usual source of care is doctor's office or clinic		6.9 *	8.8 **	7.4 **	9.7 **
Any general doctor visit in past 12 months		-0.0	4.5	8.1 **	3.2
Visit for preventive care		3.7	7.3 **	9.0 **	7.6 **
Multiple doctor visits		-3.0	4.7 ^^	8.1 **	7.5 **
Any specialist visit in past 12 months		-2.9	3.3 ^	3.7	5.5 *
Any dental care visit in past 12 months		7.5 **	14.1 ** ^	11.2 **	10.9 **
Any hospital stay in the past 12 months (excluding for birth)		-1.3	-0.6	-0.2	-2.6
Took any prescription drugs in past 12 months		-1.1	4.4 * ^	5.8 *	1.1
Any ED visits in past 12 months		1.2	-0.7	-0.0	-2.9
Three or more ED visits		0.4	-1.2	-1.5	-3.3
Most recent ED visit was for non-emergency conditiona		-0.1	-2.1	-1.7	-4.1
Among those who used care in the past 12 months, share rating quality of care as very good or excellent		8.6 **	5.0	9.4 **	5.3

Source: 2006–2010 Massachusetts Health Reform Surveys (N=7,769).

Note: Lower-income is defined as less than 300 percent of the federal poverty level (FPL). The regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, health status, disability status, whether the individual has chronic conditions or is pregnant, family income, and region-level fixed effects. Regression-adjusted estimates are predicted values calculated using the parameter estimates from the regression models to predict the outcomes that the individuals in the 2010 sample would have had if they had been observed in each of the preceding study years. Unadjusted estimates are provided in Appendix B. The estimates of percentage point changes reported in the bottom panel may not equal the difference between the values in the top panel due to rounding.

*(**) Value for year is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.

^(^^) Value for year is significantly different from the value in the previous year at the .05 (.01) level, two-tailed test.

EXHIBIT III.7: REGRESSION-ADJUSTED TRENDS IN DELAYED OR UNMET NEED FOR HEALTH CARE FOR LOWER-INCOME ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2010

	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010
PERCENT					
Delayed getting or did not get needed care in past 12 months	53.0	46.8	48.7	43.4 ** ^	46.6
Doctor care	23.8	17.7 **	18.5 *	17.2 **	19.0 *
Specialist care	20.4	12.5 **	18.9 ^^	14.8 * ^	16.2 *
Medical tests, treatment, or follow-up care	22.2	17.7	20.6	14.6 **^^	17.2 *
Preventive care screening	13.3	11.0	14.2 ^	8.8 ** ^^	9.8 *
Prescription drugs	20.0	14.4 **	17.4	14.0 **	16.6
Dental care	35.6	28.7 *	30.8	27.3 **	28.7 **
Did not get needed care in past 12 months	34.8	28.8 *	32.4	26.8 ** ^	31.6 ^
Doctor care	13.4	9.5 *	12.0	8.3 ** ^	9.3 *
Specialist care	10.9	6.3 **	12.7 ^^	6.5 ** ^^	8.5
Medical tests, treatment, or follow-up care	14.0	9.1 **	13.0 ^	7.2 ** ^^	9.6 **
Preventive care screening	8.3	6.2	9.3 ^	5.9 * ^	5.2 **
Prescription drugs	12.0	8.5 *	9.8	7.7 **	9.2
Dental care	20.5	13.5 **	17.9 ^	13.5 ** ^	17.7
PERCENTAGE POINT CHANGE FROM FALL 2006					
Delayed getting or did not get needed care in past 12 months		-6.2	-4.3	-9.6 ** ^	-6.4
Doctor care		-6.1 **	-5.3 *	-6.5 **	-4.7 *
Specialist care		-7.9 **	-1.5 ^^	-5.6 * ^	-4.2 *
Medical tests, treatment, or follow-up care		-4.4	-1.5	-7.5 ** ^^	-4.9 *
Preventive care screening		-2.3	0.9 ^	-4.6 ** ^^	-3.6 *
Prescription drugs		-5.5 **	-2.6	-5.9 **	-3.3
Dental care		-7.0 *	-4.8	-8.4 **	-6.9 **
Did not get needed care in past 12 months		-5.9 *	-2.4	-8.0 ** ^	-3.2 ^
Doctor care		-3.9 *	-1.4	-5.1 ** ^	-4.1 *
Specialist care		-4.6 **	1.7 ^^	-4.4 ** ^^	-2.4
Medical tests, treatment, or follow-up care		-4.9 **	-1.0 ^	-6.8 ** ^^	-4.4 **
Preventive care screening		-2.1	1.0 ^	-2.3 * ^	-3.1 **
Prescription drugs		-3.5 *	-2.1	-4.3 **	-2.7
Dental care		-7.0 **	-2.6 ^	-7.0 ** ^	-2.8

Source: 2006–2010 Massachusetts Health Reform Surveys (N=7,769).
Note: Lower-income is defined as less than 300 percent of the federal poverty level (FPL). The regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, health status, disability status, whether the individual has chronic conditions or is pregnant, family income, and region-level fixed effects. Regression-adjusted estimates are predicted values calculated using the parameter estimates from the regression models to predict the outcomes that the individuals in the 2010 sample would have had if they had been observed in each of the preceding study years. Unadjusted estimates are provided in Appendix B. The estimates of percentage point changes reported in the bottom panel may not equal the difference between the values in the top panel due to rounding.
*(**) Value for year is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) Value for year is significantly different from the value in the previous year at the .05 (.01) level, two-tailed test.

EXHIBIT III.8: REGRESSION-ADJUSTED TRENDS IN HEALTH CARE SPENDING, PROBLEMS WITH MEDICAL BILLS, MEDICAL DEBT, AND UNMET NEED FOR CARE BECAUSE OF COSTS FOR LOWER-INCOME ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO ALL 2010

	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010
PERCENT					
Out-of-pocket (OOP) health care spending over the past 12 months relative to family income for those less than 500% of the federal poverty level (FPL)[a]					
At 5% or more of family income	26.2	17.9 **	21.2 *	19.0 **	20.0 **
At 10% or more of family income	13.3	7.5 **	10.8 ^	7.6 ** ^	7.5 **
Had problems paying medical bills in past 12 months	30.7	23.1 **	26.1 *	25.9 *	26.1 *
Have medical bills that are paying off over time	24.9	21.6	24.4	22.2	23.2
Had problems paying other bills in past 12 months	34.1	33.2	36.8	37.3	38.1
Did not get needed care because of costs in the past 12 months	26.6	17.2 **	17.7 **	15.3 **	19.4 ** ^
Doctor care	11.1	5.0 **	5.0 **	4.3 **	4.7 **
Specialist care	8.3	3.7 **	6.2 ^	2.9 ** ^^	4.0 **
Medical tests, treatment, or follow-up care	10.8	4.4 **	6.5 **	3.2 ** ^^	5.1 ** ^
Preventive care screening	5.8	2.9 **	4.3	3.2 **	3.1 **
Prescription drugs	9.6	6.0 **	5.1 **	5.0 **	6.2 **
Dental care	17.0	9.4 **	11.5 **	8.9 **	11.5 **
PERCENTAGE POINT CHANGE FROM FALL 2006					
OOP health care spending over the past 12 months relative to family income for those less than 500% of FPL[a]					
At 5% or more of family income		-8.4 **	-5.1 *	-7.2 **	-6.2 **
At 10% or more of family income		-5.8 **	-2.5 ^	-5.6 ** ^	-5.8 **
Had problems paying medical bills in past 12 months		-7.7 **	-4.6 *	-4.9 *	-4.7 *
Have medical bills that are paying off over time		-3.3	-0.5	-2.7	-1.7
Had problems paying other bills in past 12 months		-0.9	2.7	3.2	4.0
Did not get needed care because of costs in the past 12 months		-9.4 **	-8.9 **	-11.3 **	-7.2 ** ^
Doctor care		-6.1 **	-6.1 **	-6.9 **	-6.5 **
Specialist care		-4.6 **	-2.1 ^	-5.5 ** ^^	-4.4 **
Medical tests, treatment, or follow-up care		-6.4 **	-4.3 **	-7.6 ** ^^	-5.7 ** ^
Preventive care screening		-2.9 **	-1.4	-2.5 **	-2.7 **
Prescription drugs		-3.7 **	-4.6 **	-4.6 **	-3.4 **
Dental care		-7.5 **	-5.5 **	-8.1 **	-5.5 **

Source: 2006–2010 Massachusetts Health Reform Surveys (N=7,769).

Note: Lower-income is defined as less than 300 percent of the federal poverty level (FPL). The regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, health status, disability status, whether the individual has chronic conditions or is pregnant, family income, and region-level fixed effects. Regression-adjusted estimates are predicted values calculated using the parameter estimates from the regression models to predict the outcomes that the individuals in the 2010 sample would have had if they had been observed in each of the preceding study years. Unadjusted estimates are provided in Appendix B. The estimates of percentage point changes reported in the bottom panel may not equal the difference between the values in the top panel due to rounding.

*(**) Value for year is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.

^(^^) Value for year is significantly different from the value in the previous year 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 percent of FPL.

EXHIBIT III.9: TRENDS IN SUPPORT FOR HEALTH REFORM FOR ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2010

	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010
PERCENT					
All adults	68.5	70.7	71.6	66.9 ^^	65.7
Family income less than 300% of the federal poverty level (FPL)	70.5	72.1	71.2	66.6	67.1
Family income 300% of FPL or more	67.1	69.7	71.8 *	67.1 ^	64.7
Female	69.2	72.0	73.5	69.1 ^	67.4
Male	67.8	69.2	69.6	64.6 ^	64.1
Age 19 to 25	74.4	76.5	69.5	63.9 *	65.2
Age 26 to 34	67.7	72.5	72.6	73.1	69.0
Age 35 to 49	65.6	66.5	70.0	66.0	61.3
Age 50 to 64	69.8	72.7	74.0	65.8 ^^	69.4
White, non-Hispanic	65.6	69.7 *	70.0 *	65.4 ^	62.9
Racial/ethnic minority	80.3	74.5	77.8	73.0 *	76.4
Working	68.2	69.6	71.6	66.3 ^^	64.9
Not working	69.3	74.1	71.5	68.2	67.8
Greater Boston	72.1	74.7	74.9	69.9 ^	68.7
Rest of Massachusetts	65.9	67.8	68.9	64.5 ^	63.4

Source: 2006–2010 Massachusetts Health Reform Surveys (N=15,544).
Note: These are simple (unadjusted) estimates.
*(**) Value for year is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) Value for year is significantly different from the value in the previous year at the .05 (.01) level, two-tailed test.

EXHIBIT III.10: TRENDS IN OPPOSITION TO HEALTH REFOM FOR ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2010

	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010
PERCENT					
All adults	14.5	20.6 **	20.7 **	24.5 ** ^	26.9 **
Family income less than 300% of the federal poverty level (FPL)	11.6	18.9 **	21.0 **	22.7 **	24.3 **
Family income 300% of FPL or more	16.6	21.8 *	20.4 *	25.7 ** ^^	29.0 **
Female	12.3	18.4 **	17.6 **	22.4 ** ^	24.0 **
Male	17.0	23.0 **	23.9 **	26.7 **	29.9 **
Age 19 to 25	6.6	16.9 **	24.5 **	22.4 **	29.4 **
Age 26 to 34	14.1	17.4	18.8	21.3 *	21.1 *
Age 35 to 49	16.7	24.5 **	22.1 *	25.6 **	32.7 ** ^
Age 50 to 64	15.9	19.0	18.2	26.0 ** ^^	22.2 **
White, non-Hispanic	16.2	21.9 **	22.1 **	26.6 ** ^	30.2 **
Racial/ethnic minority	7.7	15.3 **	14.6 **	16.0 **	14.4 **
Working	15.2	21.8 **	20.9 **	26.1 ** ^^	28.5 **
Not working	12.6	16.8 *	19.9 **	20.8 **	22.8 **
Greater Boston	12.4	17.0 *	18.1 **	22.2 **	24.2 **
Rest of Massachusetts	16.1	23.2 **	22.7 **	26.3 **	29.1 **

Source: 2006–2010 Massachusetts Health Reform Surveys (N=15,544).
Note: These are simple (unadjusted) estimates.
*(**) Value for year is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) Value for year is significantly different from the value in the previous year at the .05 (.01) level, two-tailed test.

EXHIBIT III.11: REGRESSION-ADJUSTED TRENDS IN SELF-REPORTED HEALTH STATUS FOR ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2010

	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010
PERCENT					
Very good or excellent health	59.7	61.5	63.9 **	64.8 **	64.9 **
Good health	26.7	26.1	23.2 * ^	22.3 **	22.6 **
Fair or poor health	13.6	12.4	13.0	13.0	12.5
PERCENTAGE POINT CHANGE FROM FALL 2006					
Very good or excellent health		1.8	4.2 **	5.1 **	5.2 **
Good health		-0.6	-3.6 *	-4.5 **	-4.1 **
Fair or poor health		-1.2	-0.6	-0.6	-1.0

Source: 2006–2010 Massachusetts Health Reform Surveys (N=15,544).
Note: The regression-adjusted estimates are derived from models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, disability status, whether the individual has chronic conditions or is pregnant, family income, and region-level fixed effects. Regression-adjusted estimates are predicted values calculated using the parameter estimates from the regression models to predict the outcomes that the individuals in the 2010 sample would have had if they had been observed in each of the preceding study years. The estimates of percentage point changes reported in the bottom panel may not equal the difference between the values in the top panel due to rounding.
*(**) Value for year is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) Value for year is significantly different from the value in the previous year at the .05 (.01) level, two-tailed test.

IV. HEALTH INSURANCE COVERAGE IN FALL 2010

KEY FINDINGS

- Insurance coverage was quite high in Massachusetts in fall 2010, particularly among higher-income nonelderly adults. Overall, 94.2 percent of nonelderly adults in Massachusetts were insured, as were 97.4 percent of higher-income adults and 90.1 percent of lower-income adults.
- Continuity of insurance coverage was also high in fall 2010, with 87.9 percent of all nonelderly adults insured for all of the prior year. Full-year coverage was at 94.2 percent for higher-income adults and 79.8 percent for lower-income adults.
- Consistent with their strong continuity of coverage, in fall 2010 most nonelderly adults (84.0 percent) were confident in their ability to keep their current health insurance coverage over the coming year.
- Roughly two-thirds of nonelderly adults with insurance coverage rated their current health plan as very good or excellent in fall 2010 in terms of the range of services available, their choice of doctors and other health providers, their ability to get specialist care, and the quality of care available to them. Higher-income adults were more likely to rate these aspects of their coverage as very good or excellent than were their lower-income counterparts.
- Only about half (51.4 percent) of the insured adults rated their current health plan's financial protection against high medical bills as very good or excellent. In addition, roughly one in six adults reported expensive medical bills for services not covered by their plan or that their doctor had charged more than their plan would pay over the past year.
- More than one in ten of the insured adults reported that they had been told that a doctor's office did not accept their insurance type, with the problem more common among lower-income adults than higher-income adults (21.0 versus 7.4 percent), likely due to the greater reliance on public coverage among the lower-income group.

This chapter provides additional information on health insurance coverage among nonelderly adults in Massachusetts as of fall 2010, including some new questions that were added to the 2010 Massachusetts Health Reform Survey (MHRS). We examine current insurance coverage, stability of coverage over the past year, and confidence in the ability to maintain coverage in the coming year, as well as the assessment of their current health plan by insured adults. Tabulations are provided for all nonelderly adults, with separate breakdowns for lower- and higher-income adults.

A. CURRENT COVERAGE, COVERAGE OVER THE PAST YEAR, AND CONFIDENCE IN THE FUTURE

Current coverage. As reported earlier, nearly all nonelderly adults (94.2 percent) had insurance coverage in fall 2010 (Exhibit IV.1). Among higher-income adults, the share with coverage was 97.4 percent, as compared to 90.1 percent for lower-income adults. The distribution of coverage type was different for higher- and lower-income adults, with higher-income adults more likely to report employer-sponsored insurance (ESI) coverage (88.5 versus 41.9 percent) and less likely to report public or other coverage (8.9 versus 48.2 percent).

Coverage over the past year. Continuity of coverage was the norm for nonelderly adults in Massachusetts in fall 2010, with 87.9 percent always insured over the past year and 9.1 percent insured for at least part of the year. Only 2.9 percent of the nonelderly adults went without insurance coverage for the full year. Among higher-income adults, continuity of coverage was at 94.2 percent, driven largely by high continuity of ESI coverage (88.5 percent). Lower-income adults had less continuity of coverage, with 79.8 percent covered for the full year.

One in five of the nonelderly adults changed insurance coverage over the prior year. Among those adults, the most common reason cited was a change in employment or hours of work. This was true across all adults with discontinuous coverage (39.0 percent) and among both lower- and higher-income adults (35.8 percent and 43.3 percent, respectively). The next most common reason, regardless of income level, was the cost of coverage, reported by 10.1 percent of nonelderly adults overall and by 7.4 percent and 13.7 percent of lower- and higher-income adults, respectively.

Confidence in the future. In fall 2010, nonelderly adults in Massachusetts were fairly confident of their ability to keep their current insurance coverage in the coming year. About half (51.8 percent) of adults reported that they were very confident and a third (32.1 percent) that they were somewhat confident of their ability to maintain their coverage. Only 6.6 percent of the adults reported that they were not at all confident of their ability to keep their coverage. Higher-income adults tended to be more confident of their coverage in the future than lower-income adults, with 89.7 percent of higher-income adults reporting that they were somewhat or very confident, as compared to 76.0 percent of lower-income adults.

B. ASSESSMENT OF HEALTH PLANS BY INSURED ADULTS

As shown in Exhibit IV.2, fewer than half of the nonelderly adults (43.8 percent) reported that their health plan had a deductible and only about half (48.7 percent) reported that they needed a referral to see a specialist. When asked to rate various aspects of their health plan, roughly two-thirds rated their current plan as very good or excellent in terms of the range of services available (63.1 percent), their choice of doctors and other health providers (67.3 percent), their ability to get specialist care (64.4 percent), and the quality of care available to them (65.8 percent). In contrast, only about half (51.4 percent) rated their current health plan's financial protection against high medical bills as very good or excellent.

Higher-income adults, who are more likely to be covered by private insurance than lower-income adults, were much more likely than lower-income adults to rate their current coverage as very good or excellent across all of these dimensions. For example, 58.7 percent of higher-income adults rated the financial protection under their health plan as very good or excellent, as compared to 41.2 percent of lower-income adults. For each of the remaining dimensions of coverage that were examined, between 70 and 76 percent of higher-income adults rated their health plans as very good or excellent, as compared to 52 to 57 percent of lower-income adults.

Consistent with the lower rating of the financial protection afforded by their health plans, between one in four and one in six nonelderly adults reported expensive medical bills for services that were not covered by their health plan, that the doctor charged a lot more than their health insurance would pay, or that they had to contact the insurance company because a bill was not paid promptly or was denied. Higher-income adults were more likely than lower-income adults to report problems with high doctor bills (18.9 versus 12.6 percent) and problems with the insurance company making timely payments or denying payments (24.3 versus 19.3 percent). These differences may reflect differences among higher- and lower-income adults in both type of coverage (due to a greater reliance on ESI among higher-income adults) and type of providers (due to a greater reliance on community health centers and other public clinics among lower-income adults).

Finally, 13.1 percent of the nonelderly adults reported that they had had a problem with a doctor's office not accepting their insurance type over the past year. This problem was much more common among lower-income than higher-income adults (21.0 versus 7.4 percent) and likely reflects the greater reliance on public coverage among lower-income adults.

C. EXTENT OF UNDERINSURANCE AMONG ADULTS WITH FULL-YEAR INSURANCE COVERAGE

Another aspect of health insurance coverage is the extent to which the coverage protects individuals from financial risk in the event of an illness or injury. Limited benefits and high cost sharing under health plans place more of the financial risk of high health care costs on the individual. While individuals with higher incomes may have the resources to cover the costs of a serious 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, we are limited to a narrower focus that considers the individual's out-of-pocket (OOP) health care costs. (Note that this is OOP spending for health care beyond the premium that the individual may pay to purchase coverage.) High OOP costs provide a conservative, lower-bound estimate of underinsurance as they only capture inadequate insurance coverage 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 being underinsured 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. Defining "high" OOP health care costs is somewhat arbitrary. We follow the approach by Schoen and colleagues and define underinsurance as having OOP health care costs of 5 percent or more of family income for those with family income less than 200 percent of the federal poverty level (FPL) or 10 percent or more of family income for individuals with family income above that level.[44] The lower threshold for low-income individuals is consistent with the cost-sharing provisions of the Children's Health Insurance Program (CHIP).[45]

44 See, for example, Schoen, C., Doty, M.M., Robertson, R.H., and Collins, S.R. Affordable Care Act Reforms Could Reduce the Number of Uninsured US Adults by 70 Percent. *Health Affairs,* 2011, 30(9):1762-1771.

45 The Massachusetts Health Insurance Survey (MHIS) obtains information on family income in poverty ranges (e.g., income less 100 percent of the FPL, income between 100 and 150 percent of the FPL, etc.). In order to provide a conservative estimate of underinsurance to compare with national estimates, out-of-pocket costs relative to income are calculated using the maximum income level in the individual's reported income range. 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.

Exhibit IV.3 examines the extent of underinsurance among insured nonelderly adults in Massachusetts in fall 2010. The focus is on adults who had insurance coverage for the full year. As shown, 8.9 percent of nonelderly adults in Massachusetts who were insured for the full year were underinsured in 2010. This estimate is substantially lower than reported for the nation as a whole, which was estimated to be 19.0 percent in 2010.[46]

There are marked differences in underinsurance rates between lower- and higher-income adults in Massachusetts (with lower-income defined as those at or below 300 percent of the FPL, and higher-income above that level). Whereas 19.9 percent of lower-income nonelderly adults with full-year insurance coverage were underinsured, the underinsurance rate was only 1.3 percent for their higher-income counterparts. Not surprisingly, underinsurance was highest among insured lower-income adults with health problems, with one in four of those adults underinsured in fall 2010.

To be conservative in our estimates, these adults are assumed to not be underinsured. Assuming that they are underinsured does not change the basic findings reported here. This approach differs from other sections of this report that look at out-of-pocket costs, where we do not make assumptions about out-of-pocket costs for adults in the highest income group.

46 Schoen, C., Doty, M.M., Robertson, R.H., and Collins, S.R. Affordable Care Act Reforms Could Reduce the Number of Uninsured US Adults by 70 Percent. *Health Affairs,* 2011, 30(9):1762-1771.

EXHIBIT IV.1: CURRENT HEALTH INSURANCE COVERAGE, TRANSITIONS OVER THE PAST YEAR, AND CONFIDENCE IN THE FUTURE FOR ADULTS 19 TO 64 IN MASSACHUSETTS, BY FAMILY INCOME, FALL 2010

		BY FAMILY INCOME RELATIVE TO THE FEDERAL POVERTY LEVEL (FPL)	
	ALL ADULTS	LESS THAN 300% OF FPL	300% OF FPL OR MORE
PERCENT			
Current insurance coverage			
Any insurance coverage	94.2	90.1	97.4 **
Employer-sponsored insurance (ESI) coverage	68.0	41.9	88.5 **
In own name	41.4	25.2	54.0 **
In family member's name	26.6	16.7	34.4 **
Public or other coverage	26.2	48.2	8.9 **
Uninsured	5.8	9.9	2.6 **
Insurance coverage over the past year			
Always insured	87.9	79.8	94.2 **
Always ESI coverage	63.9	35.8	85.8 **
Always public or other coverage	20.2	39.1	5.4 **
Part year ESI/part year public or other coverage	3.8	4.9	2.9
Part year insured/part year uninsured	9.1	15.2	4.4 **
Never insured	2.9	4.9	1.4 **
Had a change in insurance coverage in the past year	20.7	26.9	15.8 **
Among those who changed insurance coverage in the past year, reason for change			
Change in job or hours of work	39.0	35.8	43.3
Change in marital status	1.2	1.4	0.8
Birth of a child	1.0	0.4	1.8
Change in health status	1.6	2.6	0.4 *
Cost of coverage	10.1	7.4	13.7
Employer changed provider/plan	8.6	5.8	12.3 *
Other reasons/unknown	38.5	46.7	27.7 **
Confidence in ability to keep current health insurance coverage in the coming year			
Very confident	51.8	40.7	59.9 **
Somewhat confident	32.1	35.3	29.8 **
Not too confident	8.0	12.9	4.5 **
Not confident at all	6.6	9.1	4.9 *
Not rated	1.4	2.0	1.0

Source: 2010 Massachusetts Health Reform Survey (N=3,032 all adults; N=1,444 lower-income adults; N=1,588 higher-income adults).
*(**) Significantly different from the value for lower-income adults at the .05 (.01) level, two-tailed test.

EXHIBIT IV.2: SCOPE OF HEALTH INSURANCE COVERAGE BY INSURED ADULTS 19 TO 64 IN MASSACHUSETTS, BY FAMILY INCOME, FALL 2010

	ALL ADULTS	BY FAMILY INCOME RELATIVE TO THE FEDERAL POVERTY LEVEL (FPL) LESS THAN 300% OF FPL	300% OF FPL OR MORE
PERCENT			
Characteristics of health plan			
Need referral to see specialist	48.7	49.0	48.5
Health plan has a deductible	43.8	33.9	50.5 **
Health plan is high deductible health plan	2.8	0.4	4.3 **
Individual rates health plan as very good or excellent			
Range of services available	63.1	53.0	70.4 **
Choice of doctors and other providers	67.3	56.5	75.0 **
Location of doctors and other providers	67.6	56.4	75.6 **
Ability to get specialist care	64.4	52.1	73.3 **
Financial protection against high medical bills	51.4	41.2	58.7 **
Quality of care available	65.8	53.6	74.6 **
Problems with health plan in past 12 months			
Had expensive medical bills for services not covered by plan	18.5	19.1	18.1
Doctor charged a lot more than health insurance would pay and individual had to pay the difference	16.2	12.6	18.9 **
Had to contact health insurance company because bill was not paid promptly or payment was denied	22.2	19.3	24.3 *
Doctor's office did not accept individual's type of health insurance	13.1	21.0	7.4 **

Source: 2010 Massachusetts Health Reform Survey (N=3,032 all adults; N=1,444 lower-income adults; N=1,588 higher-income adults).
*(**) Significantly different from the value for lower-income adults at the .05 (.01) level, two-tailed test.

EXHIBIT IV.3: UNDERINSURANCE AMONG FULL-YEAR INSURED ADULTS 19 TO 64 IN MASSACHUSETTS, BY FAMILY INCOME, FALL 2010

	ALL ADULTS	BY FAMILY INCOME RELATIVE TO THE FEDERAL POVERTY LEVEL (FPL) LESS THAN 300% OF FPL	300% OF FPL OR MORE
PERCENT			
All full-year insured adults			
Insured all year, not underinsured	91.1	80.1	98.7 **
Insured all year, underinsured	8.9	19.9	1.3 **
Full-year insured adults with a health problem			
Insured all year, not underinsured	87.8	75.5	98.2 **
Insured all year, underinsured	12.2	24.5	1.8 **

Source: 2010 Massachusetts Health Reform Surveys (N=2,726; N=1,218 lower-income adults; N=1,508 higher-income adults).
*(**) Significantly different from the value for lower-income adults at the .05 (.01) level, two-tailed test.

V. HEALTH CARE ACCESS AND USE IN FALL 2010

KEY FINDINGS

- In fall 2010, most nonelderly adults in Massachusetts had strong ties to the health care system, with more than 90 percent reporting a usual source of care—often a doctor's office or private clinic (79.7 percent). In addition, most adults with a usual source of care had had that patient-provider relationship for a year or more (92.3 percent), with almost two-thirds reporting the same relationship for five years or more.
- Higher-income adults were more likely than lower-income adults to report a usual source of care (95.2 versus 84.2 percent) and to have a doctor's office or private clinic as their usual source of care (87.1 versus 68.9 percent). They were also more likely to have had the same usual source of care for five years or more (71.3 versus 56.6 percent).
- In fall 2010, most nonelderly adults in Massachusetts had used health care services over the past year, including 81.7 percent with a visit to a general doctor, 75.8 percent with a preventive care visit, 53.7 percent with a specialist visit, and 72.9 percent with a dental care visit.
- Higher-income adults were more likely than lower-income adults to have had a general doctor visit (84.6 versus 77.9 percent), a preventive care visit (78.6 versus 72.1 percent), and a dental care visit (82.5 versus 60.5 percent) over the prior year, while lower-income adults were more likely than the higher income adults to have had a visit to a non-physician provider as a substitute for a general doctor visit (39.3 versus 33.5 percent) and a hospital stay (12.4 versus 7.1 percent).
- The majority of nonelderly adults who visited multiple providers over the year reported receiving help coordinating their health care (67.7 percent), with the levels of care coordination similar for higher- and lower-income adults.
- More than one in five nonelderly adults in Massachusetts reported that they did not get needed care in the past 12 months, with unmet need for dental care most common—at 11.4 percent. A range of reasons was reported for that unmet need, with cost of care reported most often (at 60.0 percent of those with unmet need).
- Lower-income adults were more likely than higher-income adults to report unmet need for care (31.6 versus 15.9 percent); however, the reported reasons for unmet need were generally similar. The exception was trouble finding a provider who would see them—which was reported by 19.4 percent of lower-income adults with unmet need for care, as compared to 8.4 percent of their higher-income counterparts.

- One in five nonelderly adults in Massachusetts reported needing after-hours care at some point over the prior year, which generally resulted in an emergency department visit. Altogether, about 30 percent of nonelderly adults reported an emergency department visit over the prior year, with 7.1 percent reporting three or more visits over the year, and 12.2 percent reporting their most recent visit was for a non-emergency condition.
- Lower-income adults were more likely than higher-income adults to report needing after-hours care (25.0 versus 16.1 percent) and more likely to get that care in an emergency room (67.8 versus 53.7 percent). Overall, lower-income adults were more likely to report any emergency department visit (42.4 versus 20.9 percent), frequent emergency department visits (12.6 versus 2.8 percent), and an emergency department visit for a non-emergency condition (18.8 versus 7.1 percent).
- The majority of nonelderly adults who used health care over the prior year rated the quality of the care they had received as very good or excellent (68.4 percent). Higher-income adults reported higher levels of satisfaction with their care than did lower-income adults, with a greater share rating the care they had received over the past year as very good or excellent (75.8 versus 58.2 percent).

This chapter provides additional information on health care access and use among nonelderly adults in Massachusetts as of fall 2010, including some new questions that were added to the 2010 Massachusetts Health Reform Survey (MHRS). Tabulations are provided for all nonelderly adults, along with separate tabulations for lower- and higher-income adults.

A. USUAL SOURCE OF CARE AND CARE COORDINATION

Most (90.4 percent) nonelderly adults in Massachusetts had a usual source of care in fall 2010, suggesting strong ties to the health care system (Exhibit V.1). Most often the usual source of care was a doctor's office or private clinic (79.7 percent of adults), with many of the adults reporting the same patient-provider relationship for more than a year and two-thirds reporting the same relationship for five years or more.

Higher-income adults were more likely than lower-income adults to have a usual source of care (95.2 versus 84.2 percent) and, among those with a usual source of care, higher-income adults were more likely to rely on a doctor's office or private clinic (87.1 versus 68.9 percent). Higher-income adults were also more likely to have a long-term relationship with their usual source of care, with 71.5 percent reporting a relationship of five years or more, as compared to 56.6 percent of lower-income adults.

There were broad similarities in the reasons higher- and lower-income adults had selected their usual source of care, with both groups reporting the convenience of location, the convenience of hours, the quality of care, and the ease of getting an appointment as their top four reasons. The largest differences in reported reasons between the higher- and lower-income adults were in the shares reporting as important the cost of care (12.6 versus 25.8 percent), the availability of services beyond health care (5.3 versus 20.6 percent), and, for adults born outside the U.S., staff who speak the same language (4.6 versus 10.1 percent).

Among higher- and lower-income adults with a usual source of care, roughly equal shares reported visits to multiple providers over the past 12 months. Also, among adults with multiple providers, similar shares of lower- and higher- income adults reported having had help coordinating their health care (approximately two-thirds).

B. OUTPATIENT, INPATIENT, AND PRESCRIPTION DRUG USE

Nearly all nonelderly adults in Massachusetts (95.6 percent) had some type of health care visit in the past year (Exhibit V.2). For example, 88.0 percent had a general doctor visit; a specialist visit; or visit to a nurse practitioner, physician assistant, or midwife; and almost three-quarters (72.9 percent) had a dental care visit. In addition, the majority of those who used care over the year (68.4 percent) rated the quality of the care they had received as very good or excellent.

Higher-income adults were more likely than lower-income adults to use some of the types of health care examined, including visits to a general doctor (84.6 versus 77.9 percent), preventive care visits (78.6 versus 72.1 percent), and dental care visits (82.5 versus 60.5 percent). However, higher-income adults were no more likely than lower-income adults to have multiple doctor visits over the year, to visit a specialist, or to be taking prescription drugs, and were less likely to have had a visit to a nurse practitioner, physician assistant, or midwife in place of a general doctor (33.5 versus 39.3 percent) or to have had a hospital stay (7.1 versus 12.4 percent).

Finally, there were differences in the rating of the quality of health care by income level. Higher-income adults were more likely than lower-income adults to rate the quality of the care that they had received over the past year as very good or excellent (75.8 versus 58.2 percent).

C. BARRIERS TO CARE AND UNMET NEED

Barriers to care. Altogether, 21.2 percent of adults reported problems when trying to get health care over the past 12 months, including 12.5 percent who were told that a doctor's office or clinic was not accepting new patients, 11.3 percent who were told that a doctor's office or clinic was not accepting patients with their insurance type, and 9.3 percent who had to change to a new provider because of a change in insurance plans (Exhibit V.3). Lower-income adults were more likely than higher-income adults to report problems getting care overall (29.2 versus 14.9 percent) and for each of the particular types of problems examined. The type of care for which problems were reported was roughly the same for higher- and lower-income adults, with between 63 and 70 percent of those with difficulties getting care reporting problems when seeking primary care and 44.0 percent reporting problems when seeking specialty care.

Unmet need for care. More than one in five adults reported that they did not get some type of needed care in the past 12 months. For most of the types of care examined (doctor care; specialist care; medical, tests, treatment, or follow-up care; preventive care screening; and prescription drugs), unmet need was reported by between 4 and 7 percent of adults. Unmet need for dental care was higher—at 11.4 percent of adults.

Unmet need was higher for lower-income adults than higher-income adults across all of the measures except preventive care screening. Altogether, 31.6 percent of lower-income adults reported some type of unmet need for care, as compared to 15.9 percent of higher-income adults. Within both groups, dental care was the most common type of unmet need, with 17.7 percent of lower-income adults and 6.5 percent of higher-income adults reporting that they did not get needed dental care.

The reasons for the unmet need were generally similar between higher- and lower-income adults with cost, at about 60 percent, the most common reason reported for unmet need by both groups. The one area of difference was in the share of adults reporting unmet need because of difficulty finding a provider who would see them, with 19.4 percent of lower-income adults and 8.4 percent of higher-income adults reporting this problem. This difference is consistent with the greater difficulty among lower-income adults in finding a provider who was accepting new patients or patients with their insurance type that was discussed above.

D. AFTER-HOURS CARE AND EMERGENCY CARE

After-hours care. One in five nonelderly adults in Massachusetts reported that they needed after-hours care at some point in the past 12 months (Exhibit V.4). Among those adults, about two-thirds said that they needed after-hours care because care was needed right away, while about one-third reported needing the care because they were not able to get to a doctor's office or clinic during regular hours. Consistent with that, much of the after-hours care was obtained at a hospital emergency department (61.4 percent) or, less often, an urgent care clinic (8.0 percent). The remaining after-hours care was split among retail clinics, community health centers and other public clinics, and doctor's offices, among other sites.

Higher-income adults were less likely than lower-income adults to report needing after-hours care (16.1 versus 25.0 percent); however, among those who needed after-hours care, the reasons for needing such care were quite similar for higher- and lower-income adults. Higher-income adults were less likely than lower-income adults to obtain the needed after-hours care in the emergency department (53.7 versus 67.8 percent).

Emergency care. Overall, about 30 percent of adults reported an emergency department (ED) visit over the past 12 months, with 7.1 percent reporting three or more visits and 12.2 percent reporting that their most recent visit was for a non-emergency condition. The reported reasons for those non-emergency ED visits included a need for care after normal hours for a doctor's office or clinic (73.9 percent), an inability to get an appointment at a doctor's office or clinic as soon as needed (55.5 percent), and the assessment that it was more convenient to go to the ED (55.9 percent). One-third of those with a non-emergency ED visit reported that they were told by a doctor's office or clinic to go to the ED.

Higher-income adults were much less likely than lower-income adults to report any ED visit (20.9 versus 42.4 percent), multiple ED visits (2.8 versus 12.6 percent), and ED visits for a non-emergency condition (7.1 versus 18.8 percent). Among the adults with a non-emergency ED visit, there was only one difference in the reported reasons for such visits between higher-income and lower-income adults: higher-income adults were more likely than lower-income adults to report a non-emergency ED visit because they could not get an appointment at a doctor's office or clinic as soon as needed (69.6 versus 48.7 percent).

EXHIBIT V.1: USUAL SOURCE OF CARE AND CARE COORDINATION FOR ADULTS 19 TO 64 IN MASSACHUSETTS, BY FAMILY INCOME, FALL 2010

		BY FAMILY INCOME RELATIVE TO THE FEDERAL POVERTY LEVEL (FPL)	
	ALL ADULTS	LESS THAN 300% OF FPL	300% OF FPL OR MORE
PERCENT			
Has a usual source of care (excluding the emergency department [ED])	90.4	84.2	95.2 **
Among those with a usual source of care, site of usual source of care			
Doctor's office or private clinic	79.7	68.9	87.1 **
Community health center or other public clinic	10.4	18.0	5.2 **
Hospital outpatient department	6.9	9.7	5.0 **
Other site	2.1	1.9	2.3
Unknown/missing site	0.8	1.5	0.3
Reports ED is usual source of care	2.9	5.3	1.0 **
Among those with a usual source of care, length of relationship			
Less than 1 year	7.7	12.7	4.3 **
1 to less than 3 years	13.6	17.4	11.0 **
3 to less than 5 years	13.3	13.3	13.3
5 years or more	65.3	56.6	71.3 **
Among those with a usual source of care, reasons to go to that provider			
Location is convenient	73.8	77.0	71.5 **
Hours are convenient	57.8	66.9	51.6 **
Costs less than other places	17.9	25.8	12.6 **
Easier to get an appointment than other places	50.1	57.6	45.0 **
Offers services beyond medical care	11.5	20.6	5.3 **
For those born outside the US, has staff who speak same language	6.9	10.1	4.6 **
Quality of care is better than other places	70.1	67.9	71.7
Relationship with doctors/staff	22.9	21.0	24.3
Other medical services in same building (e.g. x-ray)	3.9	4.4	3.5
Recommended/good reputation	4.2	3.9	4.5
Accepts health insurance/in network	5.6	5.8	5.5
Among those with a usual source of care, share visiting multiple providers in the past 12 months	49.0	46.8	50.5
Among those with a usual source of care and visiting multiple providers, share with help coordinating their care	67.7	70.7	65.8

Source: 2010 Massachusetts Health Reform Survey (N=3,032 all adults; N=1,444 lower-income adults; N=1,588 higher-income adults).
* (**) Significantly different from the value for lower-income adults at the .05 (.01) level, two-tailed test.

EXHIBIT V.2: OUTPATIENT, INPATIENT, AND PRESCRIPTION DRUG USE FOR ADULTS 19 TO 64 IN MASSACHUSETTS, BY FAMILY INCOME, FALL 2010

		BY FAMILY INCOME RELATIVE TO THE FEDERAL POVERTY LEVEL (FPL)	
	ALL ADULTS	LESS THAN 300% OF FPL	300% OF FPL OR MORE
PERCENT			
Any visit to a general doctor, specialist, nurse practitioner, physician assistant, or midwife in the past 12 months	88.0	84.3	91.0 **
Any general doctor visit or visit to a nurse practitioner, physician assistant, or midwife in the past 12 months	85.1	81.8	87.7 **
Any general doctor visit in past 12 months	81.7	77.9	84.6 **
Visit for preventive care	75.8	72.1	78.6 **
Multiple doctor visits	69.7	68.5	70.7
Any visits to a nurse practitioner, physician assistant, or midwife in place of a general doctor in past 12 months	36.0	39.3	33.5 *
Any specialist visit in past 12 months	53.7	51.7	55.3
Any dental care visit in past 12 months	72.9	60.5	82.5 **
Any hospital stay in the past 12 months (excluding to have a baby)	9.4	12.4	7.1 **
Took any prescription drugs in past 12 months	57.1	55.9	58.1
Among those who used care in the past 12 months, share rating quality of care as very good or excellent	68.4	58.2	75.8 **

Source: 2010 Massachusetts Health Reform Survey (N=3,032 all adults; N=1,444 lower-income adults; N=1,588 higher-income adults).
* (**) Significantly different from the value for lower-income adults at the .05 (.01) level, two-tailed test.

EXHIBIT V.3: PROBLEMS OBTAINING CARE AND UNMET NEED FOR CARE FOR ADULTS 19 TO 64 IN MASSACHUSETTS, BY FAMILY INCOME, FALL 2010

	ALL ADULTS	BY FAMILY INCOME RELATIVE TO THE FEDERAL POVERTY LEVEL (FPL)	
		LESS THAN 300% OF FPL	300% OF FPL OR MORE
PERCENT			
Had problems getting care in the past 12 months	21.2	29.2	14.9 **
Told by doctor's office or clinic they were not accepting new patients	12.7	16.6	9.6 **
Told by doctor's office or clinic they were not accepting insurance type	11.3	18.6	5.6 **
Had to change to a new provider because of a change in insurance plans	9.3	13.4	6.1 **
Among those with problems getting care, problems were with			
Primary care	67.3	70.1	63.0
Specialty care	44.6	45.1	43.9
Did not get or postponed getting needed care for any reason in past 12 months	38.3	46.6	31.8 **
Doctor care	13.3	19.0	8.8 **
Specialist care	12.3	16.2	9.3 **
Medical tests, treatment, or follow-up care	13.8	17.2	11.2 **
Preventive care screening	8.5	9.8	7.5
Prescription drugs	12.0	16.6	8.5 **
Dental care	21.8	28.7	16.3 **
Did not get needed care for any reason in past 12 months	22.8	31.6	15.9 **
Doctor care	5.8	9.3	3.1 **
Specialist care	5.6	8.5	3.3 **
Medical tests, treatment, or follow-up care	7.0	9.6	4.9 **
Preventive care screening	4.4	5.2	3.8
Prescription drugs	6.5	9.2	4.4 **
Dental care	11.4	17.7	6.5 **
Among those who did not get needed care in the past 12 months, reasons for not getting care			
Cost of care	60.0	61.8	57.2
Trouble finding a provider who would see them	15.1	19.4	8.4 **
Trouble getting an appointment with a provider	18.7	21.1	14.8
Difficulty getting to the place of care	11.1	12.2	9.3
Hours care available were not convenient	11.1	10.2	12.5

Source: 2010 Massachusetts Health Reform Survey (N=3,032 all adults; N=1,444 lower-income adults; N=1,588 higher-income adults).
*(**) Significantly different from the value for lower-income adults at the .05 (.01) level, two-tailed test.

EXHIBIT V.4: AFTER-HOURS CARE AND EMERGENCY DEPARTMENT USE FOR ADULTS 19 TO 64 IN MASSACHUSETTS, BY FAMILY INCOME, FALL 2010

		BY FAMILY INCOME RELATIVE TO THE FEDERAL POVERTY LEVEL (FPL)	
	ALL ADULTS	LESS THAN 300% OF FPL	300% OF FPL OR MORE
PERCENT			
Needed after-hours care in past 12 months	20.0	25.0	16.1 **
Among those who needed after-hours care, reason for most recent episode of after-hours care			
Needed care right away	66.7	66.0	67.5
Not able to get to doctor's office or clinic during regular hours	31.9	32.6	31.0
Other reasons/do not know	1.4	1.4	1.5
Among those who needed after-hours care, site of most recent after-hours care			
Did not get after-hours care	7.5	6.3	8.9
Hospital emergency department (ED)	61.4	67.8	53.7 *
Urgent care center	8.0	5.7	10.9
Retail clinic	5.2	4.6	5.9
Community health center or other public clinic	5.7	5.0	6.5
Doctor's office	4.4	4.3	4.6
Doctor was on call / via phone	5.3	4.4	6.4
Other place	2.5	1.8	3.2
Any ED visits in past 12 months	30.4	42.4	20.9 **
Three or more ED visits	7.1	12.6	2.8 **
Most recent ED visit was for non-emergency condition[a]	12.2	18.8	7.1 **
Among those with most recent ED visit for non-emergency condition, reasons for that visit			
Unable to get appointment at doctor's office or clinic as soon as needed	55.5	48.7	69.6 **
Needed care after normal hours for doctor's office or clinic	73.9	71.4	79.3
More convenient to go to ED	55.9	57.2	53.3
Told by doctor's office or clinc to go to ED	34.2	31.1	40.4

Source: 2010 Massachusetts Health Reform Survey (N=3,032 all adults; N=1,444 lower-income adults; N=1,588 higher-income adults).
*(**) Significantly different from the value for lower-income adults 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.

VI. HEALTH CARE COSTS AND AFFORDABILITY IN FALL 2010

KEY FINDINGS

- Health care costs were an important issue for many families in Massachusetts in fall 2010. About half (49.4 percent) of nonelderly adults in Massachusetts reported their family was spending more on health care in 2010 than in the prior year and a quarter were not confident in their ability to afford care in the coming year.
- More than a quarter of the adults (28.3 percent) reported that their health care spending in 2010 had caused financial problems for their families, often leading them to cut back on health care services and other spending, or to reduce savings. Such financial problems were more common for lower-income adults than higher-income adults (37.1 versus 21.5 percent).
- Nearly one in five nonelderly adults (17.5 percent) reported problems paying their medical bills in fall 2010. Most often those bills were for doctor or hospital care. Lower-income adults were more likely than higher-income adults to report problems paying medical bills (26.1 versus 10.9 percent).
- In fall 2010, one in five nonelderly adults had medical bills that they were paying off over time. Almost half of those adults reported that their problems paying medical bills began more than a year earlier. Lower-income adults were more likely than higher-income adults to have medical debt (23.2 versus 17.9 percent) and to report that their problems paying medical bills had begun more than a year ago (53.8 versus 38.1 percent).
- Health care costs can be a barrier to obtaining needed health care. Unmet need because of the cost of care was reported by 13.6 percent of adults, most often for dental care (7.8 percent). The most common reason reported for unmet need was that the service was not covered by insurance, with the share of adults reporting that as a factor ranging from 55.2 percent for unmet need for prescription drugs to 80.4 percent for unmet need for dental care. The share of adults reporting that their unmet need was due to co-pays for the service was lower, ranging from 24.8 percent for unmet need for preventive care screening to 47.2 percent for unmet need for prescription drugs.
- Unmet need because of the cost of care was more common among lower-income adults, with about one in five reporting some type of unmet need due to costs, as compared to one in ten among higher-income adults. Lower-income adults were more likely than higher-income adults to report unmet need for all of the types of services examined, although the difference was not statistically significant for preventive care screenings.

This chapter provides additional information on the affordability of health care for nonelderly adults in Massachusetts as of fall 2010, including some new questions that were added to the 2010

Massachusetts Health Reform Survey (MHRS). We examine out-of-pocket health care spending and the affordability of health care, financial problems due to health care costs, and unmet need for care due to costs. Tabulations are provided for all nonelderly adults, and for lower- and higher-income adults separately.

A. HEALTH CARE SPENDING

There was wide variation in out-of-pocket (OOP) health care spending across nonelderly adults in Massachusetts in fall 2010 (Exhibit VI.1). Nearly 40 percent of adults spent less than $500 over the year, while 7.4 percent spent $5,000 or more on health care. When considered relative to family income, 17.1 percent of the adults with family income under 600 percent of the federal poverty level (FPL) spent five percent or more of their family income on health care, while 6.2 percent spent ten percent or more of family income on health care.[47]

OOP spending was much higher for higher-income adults than lower-income adults, likely reflecting both their higher incomes and the larger deductibles and co-pays under private coverage (which is the primary source of coverage for higher-income adults) relative to public coverage (which is a more common source of coverage among lower-income adults). However, when considered relative to family income, lower-income adults were allocating a greater share of their income toward health care than were higher-income adults: among lower-income adults, 20.4 percent were spending five percent or more of family income on health care and 8.6 percent were spending ten percent or more of family income on health care, as compared to 12.4 percent and 2.8 percent, respectively, for the higher-income adults under 600 percent of poverty.

When asked to assess their health care spending in 2010 relative to the prior year, half of the nonelderly adults reported spending more on health care in 2010, while 40.4 percent reported that their spending in 2010 was about the same as the prior year. Higher-income adults were more likely than lower-income adults to report that they were spending more in 2010 than in the prior year (55.3 versus 41.8 percent). Despite this pattern, higher-income adults were more likely to report that they were very confident in their ability to afford health care in the coming year (42.9 versus 22.4 percent). More than one-third of lower-income adults were not too confident or not confident at all in their ability to afford health care in the coming year, as compared to fewer than one in five higher-income adults. Overall, 73.9 percent of nonelderly adults were somewhat or very confident in their ability to afford health care in the coming year.

B. PROBLEMS DUE TO HEALTH CARE COSTS

Financial problems related to health care costs. More than one-quarter (28.3 percent) of nonelderly adults reported financial problems in fall 2010 caused by health care spending (Exhibit VI.2). Of those with health care-related financial problems, more than half (53.8 percent) reported that they had cut back on health care, while 86.9 percent reported cutting back on other spending. In addition, 78.0 percent reported that they had reduced their savings (either cutting back on savings or taking money from savings) and 40.0 percent reported working more (either more hours or an additional job).

Lower-income adults were more likely than higher-income adults to report health care-related financial problems (37.1 versus 21.5 percent). Both lower- and higher-income adults reported similar changes to address these financial problems; however, lower-income adults were more likely to cut back on health care while higher-income adults were more likely to cut back on savings.

Problems paying medical bills. Nearly one in five adults (17.5 percent) reported problems paying medical bills in fall 2010, most often for doctor care (69.2 percent) and hospital care (54.8 percent).

47 Because of the way income information is collected in the survey, the measure of out-of-pocket costs relative to family income cannot be determined for adults with family income above 600 percent of FPL.

Although less common, bills for dental care and prescription drugs were also a problem for adults with problems paying medical bills—at 37.9 and 37.7 percent, respectively. Among those with problems paying medical bills, emergency care (49.9 percent), medical tests or surgical procedures (48.3 percent), and ongoing treatment for chronic conditions or long-term health problems (44.6 percent) were the most common reasons for those bills.

Lower-income adults were more likely than higher-income adults to have problems paying medical bills (26.1 versus 10.9 percent); however, there were no differences in the types of care that had generated those bills and little difference in the reasons for the care. The only significant difference was that higher-income adults were more likely to report problems paying bills because of a medical test or surgical procedure than were lower-income adults (57.2 versus 43.4 percent).

Medical debt. About one in five adults (20.2 percent) reported medical bills that they were paying off over time. While the majority of that debt was less than $2,000, for a small share of the adults (5.9 percent), the medical debt was more than $10,000.

Many of those with medical debt had started having problems paying medical bills in the last year (54.0 percent) or two (19.1 percent); however, some had had problems paying medical bills for much longer. About 7.3 percent of the adults began accumulating medical debt five or more years ago.

Medical debt was more common among lower-income adults than higher-income adults (23.2 versus 17.9 percent) and had been accumulated over a longer time period for lower-income adults. Among higher-income adults with medical debt, 61.9 percent had begun accumulating that debt within the last year, as compared to 46.2 percent of lower-income adults. Despite that difference, the shares of the adults with debts of different sizes (less than $2,000; $2,000 to $9,999; or $10,000 or more) were quite similar across the two income groups.

Finally, in addition to having more problems paying medical bills, lower-income adults were more than twice as likely as higher-income adults to have problems paying other bills. More than one-third (37.8 percent) of lower-income adults had problems paying other bills, as compared to 15.2 percent of higher-income adults.

C. UNMET NEED FOR CARE BECAUSE OF COSTS

Health care costs can be a barrier to obtaining needed health care. The burden of high health care costs led more than one in ten (13.6 percent) nonelderly adults to go without needed care because of costs in fall 2010. Unmet need for care because of costs was most common for dental care (7.8 percent), with much of that (80.4 percent) reported to be due to dental care not being covered by insurance. Unmet need due to cost for other types of care was lower, from 2.3 to 4.4 percentage points, but was often for the same reason as unmet need for dental care—the care was not covered by insurance. The share of adults reporting unmet need because the care was not covered by insurance ranged from 55.2 percent for unmet need for prescription drugs to 80.4 percent for unmet need for dental care. High co-pays were also a factor for some adults with unmet need, ranging from 24.8 percent for unmet need for preventive care screening to 47.2 percent for unmet need for prescription drugs. Unmet need for care because of costs was higher for lower-income adults than higher-income adults (19.4 versus 9.1 percent). For both higher- and lower-income adults, dental care was the most common service for which there was unmet need, at 5.0 percent of higher-income adults and 11.5 percent of lower-income adults. The reported reasons for unmet need for care due to costs were not significantly different for the higher- and lower-income adults, although sample sizes here make the estimates relatively imprecise.

EXHIBIT VI.1: HEALTH CARE SPENDING FOR ADULTS 19 TO 64 IN MASSACHUSETTS, BY FAMILY INCOME, FALL 2010

		BY FAMILY INCOME RELATIVE TO THE FEDERAL POVERTY LEVEL (FPL)	
	ALL ADULTS	LESS THAN 300% OF FPL	300% OF FPL OR MORE
PERCENT			
Out-of-pocket (OOP) health care spending over the past 12 months			
Less than $500	39.3	55.4	26.7 **
$500 to $999	16.2	15.1	17.1
$1,000 to $4,999	35.2	24.0	44.0 **
$5,000 or more	7.4	3.8	10.2 **
Do not know/refused	1.8	1.7	1.9
OOP health care spending over the past 12 months relative to family income			
At 5% or more of family income for those less than 600% of FPL[a]	17.1	20.4	12.4 **
At 10% or more of family income for those less than 600% of FPL[a]	6.2	8.6	2.8 **
Assessment of total health care spending in 2010 relative to the prior year			
More than last year	49.4	41.8	55.3 **
About the same as last year	40.4	44.3	37.3 *
Less than last year	8.9	11.5	6.9 **
Do not know/refused	1.3	2.4	0.4 **
Confidence in ability to afford health care in the coming year			
Very confident	33.9	22.4	42.9 **
Somewhat confident	40.0	39.6	40.3
Not too confident	15.6	21.7	10.8 **
Not confident at all	9.4	14.3	5.5 **
Do not know/refused	1.1	1.9	0.5 *

Source: 2010 Massachusetts Health Reform Survey (N=3,032 all adults; N=1,444 lower-income adults; N=1,588 higher-income adults).
*(**) Significantly different from the value for lower-income adults at the .05 (.01) level, two-tailed test.
[a] Because of the way the income information is collected in the survey, the measure of OOP costs relative to family income cannot be constructed for adults with family income above 600 percent of FPL.

EXHIBIT VI.2: FINANCIAL PROBLEMS DUE TO HEALTH CARE COSTS FOR ADULTS 19 TO 64 IN MASSACHUSETTS, BY FAMILY INCOME, FALL 2010

		BY FAMILY INCOME RELATIVE TO THE FEDERAL POVERTY LEVEL (FPL)	
	ALL ADULTS	LESS THAN 300% OF FPL	300% OF FPL OR MORE
PERCENT			
Health care spending in 2010 reported to have caused financial problems for family	28.3	37.1	21.5 **
Among those with financial problems caused by health care spending, reported changes made in response to those problems			
Cut back on health care	53.8	60.5	44.8 **
Cut back on other spending	86.9	84.7	89.9
Cut back on savings or took money from savings	78.0	73.6	84.1 **
Increased work hours or took another job	40.0	40.6	39.2
Had problems paying medical bills in past 12 months	17.5	26.1	10.9 **
Among those with problems paying medical bills, type of care that generated those bills			
Doctor care	69.2	66.7	73.8
Hospital care	54.8	53.3	57.5
Dental care	37.9	37.2	39.1
Vision care	19.0	21.9	13.4
Prescription drugs	37.7	41.3	30.9
Other types of medical care	30.7	30.8	30.6
Among those with problems paying medical bills, reason for care that generated those bills			
Birth of a child	4.6	5.1	3.7
Ongoing treatment for chronic condition or long-term health problem	44.6	44.7	44.5
Medical test or surgical procedure	48.3	43.4	57.2 **
Emergency care	49.9	53.4	43.4
Have medical bills that they are paying off over time	20.2	23.2	17.9 **
Among those paying medical bills over time, amount of medical debt			
Less than $2,000	56.7	58.3	55.0
$2,000 to $9,999	37.4	34.5	40.4
$10,000 or more	5.9	7.2	4.5
Among those paying medical bills over time, year problems paying medical bills began			
Within the last year	54.0	46.2	61.9 *
Between one and two years ago	19.1	21.5	16.6
Between two and five years ago	19.6	23.0	16.2
Five years ago or more	7.3	9.3	5.2
Had problems paying other bills in past 12 months	25.2	38.1	15.0 **

Source: 2010 Massachusetts Health Reform Survey (N=3,032 all adults; N=1,444 lower-income adults; N=1,588 higher-income adults).
*(**) Significantly different from the value for lower-income adults at the .05 (.01) level, two-tailed test.

EXHIBIT VI.3: UNMET NEED FOR CARE DUE TO COSTS FOR ADULTS 19 TO 64 IN MASSACHUSETTS, BY FAMILY INCOME, FALL 2010

		BY FAMILY INCOME RELATIVE TO THE FEDERAL POVERTY LEVEL (FPL)	
	ALL ADULTS	LESS THAN 300% OF FPL	300% OF FPL OR MORE
PERCENT			
Did not get needed care because of costs in the past 12 months	13.6	19.4	9.1 **
Doctor care	3.2	4.7	2.1 **
Specialist care	2.7	4.0	1.7 **
Medical tests, treatment, or follow-up care	3.7	5.1	2.5 **
Preventive care screening	2.3	3.1	1.7
Prescription drugs	4.4	6.2	2.9 **
Dental care	7.8	11.5	5.0 **
Among those with unmet need for type of care due to costs, share reporting unmet need was because uninsured or because care was not covered by insurance			
Doctor care	65.6	56.5	81.6
Specialist care	69.0	68.7	69.7
Medical tests, treatment, or follow-up care	57.4	61.1	51.5
Preventive care screening	67.6	62.7	74.6
Prescription drugs	55.2	67.1	35.4
Dental care	80.4	82.3	77.2
Among those with unmet need for type of care due to costs, share reporting unmet need was because co-pay was too high			
Doctor care	32.7	37.1	24.9
Specialist care	27.8	29.5	24.7
Medical tests, treatment, or follow-up care	40.9	30.2	58.0
Preventive care screening	24.8	25.0	24.7
Prescription drugs	47.2	38.4	62.0
Dental care	26.9	22.4	34.9

Source: 2010 Massachusetts Health Reform Survey (N=3,032 all adults; N=1,444 lower-income adults; N=1,588 higher-income adults).
* (**) Significantly different from the value for lower-income adults at the .05 (.01) level, two-tailed test.

VII. TRACKING EMPLOYER-SPONSORED HEALTH INSURANCE FROM THE PERSPECTIVE OF WORKERS OVER TIME: TRENDS FROM FALL 2006 TO FALL 2010

KEY FINDINGS

- Employer-sponsored insurance (ESI) coverage continues to provide the foundation for insurance coverage in Massachusetts. In fall 2010, as in fall 2006, roughly 90 percent of workers were employed by firms that offered health insurance coverage, and more than 80 percent were employed by firms that offered coverage to them specifically. ESI coverage among workers with an offer from their employer was about 93 percent in both fall 2006 and fall 2010.
- ESI has also remained strong for workers in small firms (defined as those with fewer than 51 employees), with more than 70 percent of those workers employed by firms that offered coverage over the fall 2006 to fall 2010 period. Among those with an offer, nearly all were covered by an employer-sponsored plan.
- Increasing shares of workers in Massachusetts reported relatively high contributions toward their health insurance premiums in fall 2010 relative to fall 2006, which is consistent with the continued escalation of health care costs in the state, as in the nation as a whole. Health care costs in Massachusetts and the nation continue to rise rapidly, outpacing growth in both wages and inflation.
- Despite the increase in high premium contributions, the majority of workers in Massachusetts in fall 2010 (more than 70 percent) rated their health plans as very good or excellent 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, with the levels of satisfaction reported in fall 2010 as good as or better than those reported in fall 2006.

This chapter examines trends over time in the availability, cost, and scope of employer-sponsored coverage in Massachusetts, as reported by the nonelderly workers in the state—the employee's perspective on employer-sponsored insurance coverage. We focus on the period from fall 2006, just prior to the implementation of Massachusetts' health reform initiative, to fall 2010, reporting on workers overall and workers in small firms in particular.

A. EMPLOYERS' OFFER OF COVERAGE TO WORKERS AND WORKERS' TAKE-UP OF COVERAGE

In fall 2010, 91.3 percent of Massachusetts workers were employed by firms that offered coverage to any worker at the firm and 82.6 percent were employed by a firm that offered coverage to them specifi-

cally (Exhibit VII.1).[48] As shown, the overall share of workers in Massachusetts with an employer who offers coverage has remained steady since prior to health reform in fall 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 fall 2006 and fall 2010 and no significant change in the shares reporting that their employer offered coverage to them specifically.

The share of employees taking up their employers' offer of coverage also remained high in fall 2010, with 93.5 percent of workers with an ESI offer covered through an employer. Like the employer offer rate, the employee take-up rate for employer-sponsored coverage has remained steady since fall 2006. The overall share of workers taking up ESI coverage has not changed since prior to health reform, nor have the shares of workers covered through their own employer and those covered through the employer of a family member (e.g., a spouse or parent).[49]

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 remained relatively steady since fall 2006. Over the fall 2006 to fall 2010 period, roughly nine out of ten of the workers in small firms with an ESI offer reported ESI coverage. As with all workers, there has been no change in the shares of workers in small firms who are covered through their own employer and those covered through the employer of a family member. Although still above the share in fall 2006, the share of workers in small firms taking up an ESI offer in fall 2010 was lower than that of fall 2009—down from 92.7 percent to 85.7 percent.

B. WORKERS' CONTRIBUTION TO PREMIUMS UNDER EMPLOYER-SPONSORED INSURANCE

The costs of health insurance coverage to employees will be reflected in each workers' 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.[50] 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 share of workers with relatively "high" premiums. We define "high" as a contribution toward premiums 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 premiums in Massachusetts was $1,011 for single coverage and $3,128 for family coverage,

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48 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, which provides data from a national sample of employers. The MEPS-IC reports that 93.3 percent of private-sector employees in Massachusetts worked for a firm that offered coverage to any worker in 2009. The comparable estimate for the nation as a whole was 87.6 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.

49 The increase in ESI coverage through a family member in fall 2010 that was reported in Chapter III reflects increased ESI coverage among non-workers.

50 Estimates for Massachusetts from the MEPS-IC show no significant change in the average share of the premium paid by workers between 2006 and 2009 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 2010 show a slight decrease in the worker's share of premiums between 2009 and 2010. See Massachusetts Division of Health Care Finance and Policy. *Massachusetts Employer Survey 2010*. Boston, MA: Massachusetts Division of Health Care Finance and Policy, 2011. Available at http://www.mass.gov/Eeohhs2/docs/dhcfp/r/pubs/11/mes_results_2010.pdf.

above the national averages of $788 and $2,890 for single and family coverage, respectively.[51] By 2009, the average employee contribution to premiums in Massachusetts had increased to $1,321 for single coverage and $4,088 for family coverage. The comparable figures for the nation as a whole were $957 and $3,474, respectively. The employee share of ESI premiums in Massachusetts remains higher than those in the U.S. as a whole and has been increasing more rapidly.

With health insurance premiums in Massachusetts continuing to rise, there was an increase in the overall share of workers reporting premium contributions that were relatively high, measured at both 1.5 times and 2.0 times the average employee contribution between fall 2006 and fall 2010 (Exhibit VII.2).[52] For instance, in fall 2006, 26.4 percent of workers reported a premium contribution at or above 1.5 times the average and that share was 31.8 percent in fall 2010—an increase of 5.4 percentage points. The increase was even greater for the share of workers at or above 2.0 times the average, which rose 6.2 percentage points from 13.1 percent in fall 2006 to 19.3 percent in fall 2010. 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 high-deductible health plan. In fall 2010, 3.4 percent of workers had a high-deductible health plan, compared to less than 1.0 percent in fall 2006. Although higher than in 2006, the estimates of the shares of workers with relatively high premium contributions in fall 2010 were not significantly different from the estimates for fall 2009.[53] Nor was there a significant change between fall 2009 and 2010 in the share of workers in high-deductible health plans.

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 to report participation in a high-deductible health plan in fall 2010. Among workers in small firms in fall 2010, 4.8 percent reported a high-deductible plan, as compared to less than 1 percent in fall 2006. As with workers overall, the shares of workers in small firms who reported relatively high premium contributions and the share in a high-deductible health plan in fall 2010 were not significantly different from the shares in fall 2009.

C. WORKERS' ASSESSMENT OF EMPLOYER-SPONSORED INSURANCE

Rather than eliminating coverage altogether, employers could decide to reduce health insurance costs by scaling back the benefits covered under their plans, limiting the choice of providers, or increasing deductibles and co-pays. 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 1) rated their employer-sponsored plans as very good or excellent on several important dimensions related to the scope of coverage and provider

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51 Data from Medical Expenditure Panel Survey-Insurance Component Summary Data Tables II.C.1 and II.D.1 for 2006 and 2009. Rockville, MD: Agency for Healthcare Research and Quality, Center for Financing, Access and Cost Trends [cited 2011 May 6]. 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 to other data sources on ESI premiums for Massachusetts.

52 Data from the Massachusetts Division of Health Care Finance and Policy's Massachusetts Employer Survey for 2010 also show an increase in premiums for employees in 2010 relative to 2009. See Massachusetts Division of Health Care Finance and Policy. *Massachusetts Employer Survey 2010.* Boston, MA: Massachusetts Division of Health Care Finance and Policy, 2011. Available at http://www.mass.gov/Eeohhs2/docs/dhcfp/r/pubs/11/mes_results_2010.pdf.

53 By contrast, tabulations based on median premiums from the Massachusetts Division of Health Care Finance and Policy's Massachusetts Employer Survey for 2010 show an increase in the median premium contribution for employees in 2010 relative to 2009. See Massachusetts Division of Health Care Finance and Policy. *Massachusetts Employer Survey 2010.* Boston, MA: Massachusetts Division of Health Care Finance and Policy, 2011. Available at http://www.mass.gov/Eeohhs2/docs/dhcfp/r/pubs/11/mes_results_2010.pdf.

choice,[54] 2) reported problems with their employer-sponsored health plans, and 3) reported unmet need for medical care or prescription drugs because of the cost of care.

As shown, the majority of workers in Massachusetts (roughly 70 percent or more) rated their health plans as very good or excellent in fall 2010 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 fall 2010 were as good as or better than those reported in fall 2006. In particular, more workers rated the range of services available under their plan and their choice of doctors as very good or excellent in fall 2010 than in fall 2006 (71.1 versus 58.6 percent). Although comparable to the level reported in fall 2006, the share of workers rating the quality of health care available under their plan as very good or excellent dropped between fall 2009 and fall 2010 (from 76.5 to 71.4 percent).[55]

The increase since fall 2006 in the share of workers providing high ratings for a range of services offered by the 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.[56]

Turning to cost of care under ESI plans, we find no evidence of increasing problems over time with health care costs under their health plans for workers in Massachusetts.[57] Roughly the same share of workers in fall 2006 and fall 2010 reported expensive medical bills that were not covered by their plan (about 15 percent) or reported that their doctor charged more than their health plan would pay (between 13 and 15 percent). Similarly, the share of workers reporting unmet need for medical care or prescription drugs because of costs remained about the same, at 5.5 percent in fall 2006 and 4.5 percent in fall 2010. Despite the continuing increase in health care costs in the state (which predates health reform), the shares of workers reporting problems with health care costs under their health plan had not changed between fall 2009 and fall 2010.

When we look at workers in small firms, we find that those workers provided an assessment of their health plans in fall 2010 that was as good or better than the assessment of workers in small firms in fall 2006 (Exhibit VII.4). There was a gain in the share of workers in small firms rating the range of services available under their health plan as very good or excellent, which rose to 71.1 percent in fall 2010 from 58.6 percent in fall 2006.

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

55 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 Medical Cost Trends, Premium Levels and Trends in Private Health Plans: 2007-2009*. Boston, MA: Massachusetts Division of Health Care Finance and Policy, 2011. Available at http://www.mass.gov/Eeohhs2/docs/dhcfp/cost_trend_docs/cost_trends_docs_2011/premium_report.pdf.

56 The "minimum creditable coverage" standards include coverage for a comprehensive set of services (including prescription drugs): doctor visits for preventive care, without a deductible; limits on out-of-pocket spending; and no caps on total benefits for a particular illness or a single year. See https://www.mahealthconnector.org/portal/site/connector/menuitem.9ccd4bd144d4e8b2dbef6f47d7468a0c.

57 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?

EXHIBIT VII.1: EMPLOYER-SPONSORED INSURANCE AVAILABILITY AND TAKE-UP FOR WORKERS 19 TO 64 IN MASSACHUSETTS, OVERALL AND IN SMALL FIRMS, FALL 2006 TO FALL 2010

	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010
PERCENT					
All workers					
Worker's employer offers employer-sponsored insurance (ESI) coverage					
Employer offers coverage to any workers	89.9	91.5	91.6	90.6	91.3
Employer offers coverage to this worker	81.0	82.7	85.1 *	83.4	82.6
Take-up of ESI coverage among workers with an offer from their employer					
Any ESI coverage	92.9	93.8	94.2	94.4	93.5
ESI coverage from their employer	73.1	70.9	69.8	73.5	72.4
ESI coverage through another family member	19.8	22.9	24.4	20.9	21.1
Workers in small firms					
Worker's employer offers ESI coverage					
Employer offers coverage to any workers	72.9	76.9	73.1	72.2	72.7
Employer offers coverage to this worker	61.8	63.2	62.6	62.4	63.5
Take-up of ESI coverage among workers with an offer from their employer					
Any ESI coverage	87.5	90.9	88.5	92.7	85.7 ^
ESI coverage from their employer	61.1	60.5	59.6	70.3	61.5
ESI coverage through another family member	26.4	30.4	28.9	22.4	24.2
PERCENTAGE POINT CHANGE FROM FALL 2006					
All workers					
Worker's employer offers ESI coverage					
Employer offers coverage to any workers		1.6	1.7	0.7	1.4
Employer offers coverage to this worker		1.7	4.1 *	2.4	1.6
Take-up of ESI coverage among workers with an offer from their employer					
Any ESI coverage		0.9	1.3	1.5	0.5
ESI coverage from their employer		-2.2	-3.4	0.3	-0.8
ESI coverage through another family member		3.1	4.6	1.1	1.3
Workers in small firms					
Worker's employer offers ESI coverage					
Employer offers coverage to any workers		4.0	0.2	-0.7	-0.2
Employer offers coverage to this worker		1.4	0.8	0.6	1.7
Take-up of ESI coverage among workers with an offer from their employer					
Any ESI coverage		3.5	1.0	5.3	-1.7 ^
ESI coverage from their employer		-0.6	-1.5	9.2	0.5
ESI coverage through another family member		4.0	2.5	-4.0	-2.2

Source: 2006–2010 Massachusetts Health Reform Surveys (N=8,915 all workers; N=2,391 workers in small firms).
Note: Small firms are defined as having fewer than 51 employees.
*(**) Value for year is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) Value for year is significantly different from the value in the previous year at the .05 (.01) level, two-tailed test.

EXHIBIT VII.2: EMPLOYEE CONTRIBUTION TOWARD PREMIUMS FOR WORKERS 19 TO 64 WITH EMPLOYER-SPONSORED INSURANCE COVERAGE IN MASSACHUSETTS, OVERALL AND IN SMALL FIRMS, FALL 2006 TO FALL 2010

	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010
PERCENT					
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	47.5	41.9 *	47.0 ^	50.0	53.3
At or above 1.5 times the average	26.4	22.3 *	26.5 ^	31.1 * ^	31.8 *
At or above 2.0 times the average	13.1	12.4	15.8	17.5 *	19.3 **
Worker has a high-deductible health plan	0.3	0.7	1.6	3.3 ** ^	3.4 **
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	47.2	36.6	50.9 ^	43.1	48.0
At or above 1.5 times the average	32.7	21.6 *	36.8 ^^	27.3	30.6
At or above 2.0 times the average	15.9	9.6 *	25.2 * ^^	17.1	17.1
Worker has a high-deductible health plan	0.2	1.3	0.5	2.5 *	4.8 **
PERCENTAGE POINT CHANGE FROM FALL 2006					
All workers					
Worker's contribution to ESI coverage relative to average employee contribution to ESI premium in Massachusetts[a]					
At or above the average		-5.6 *	-0.5 ^	2.5	5.8
At or above 1.5 times the average		-4.1 *	0.2 ^	4.7 * ^	5.4 *
At or above 2.0 times the average		-0.7	2.6	4.3 *	6.2 **
Worker has a high-deductible health plan		0.4	1.3	3.0 ** ^	3.1 **
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		-10.6	3.6 ^	-4.2	0.7
At or above 1.5 times the average		-11.1 *	4.1 ^^	-5.3	-2.0
At or above 2.0 times the average		-6.2 *	9.3 * ^^	1.2	1.2
Worker has a high-deductible health plan		1.1	0.3	2.3 *	4.6 **

Source: 2006–2010 Massachusetts Health Reform Surveys (N=7,817 all workers; N=1,431 workers in small firms).
Note: Small firms are defined as having fewer than 51 employees.
[a] See text for description of measure of average employee contribution to ESI premium.
*(**) Value for year is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) Value for year is significantly different from the value in the previous year at the .05 (.01) level, two-tailed test.

EXHIBIT VII.3: SCOPE OF COVERAGE UNDER HEALTH PLANS FOR WORKERS 19 TO 64 WITH EMPLOYER-SPONSORED INSURANCE COVERAGE IN MASSACHUSETTS, FALL 2006 TO FALL 2010

	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010
PERCENT					
Worker rates health plan as very good or excellent					
Range of services available	63.4	67.6	67.7	68.9 *	69.9 **
Choice of doctors	69.1	73.2	72.8	75.1 **	73.5 *
Quality of care available	68.7	72.9	73.9 *	76.5 **	71.4 ^
Problems with health plan in past 12 months					
Had expensive medical bills for services not covered by health plan	15.2	14.4	15.3	14.3	15.1
Doctor charged a lot more than health plan would pay	13.7	12.7	14.2	12.5	15.1
Told that doctor's office was not accepting their health plan	5.9	5.8	6.6	6.8	7.5
Had unmet need for medical care or prescription drugs because of cost in the past 12 months	5.5	3.3 *	4.7	3.7	4.5
PERCENTAGE POINT CHANGE FROM FALL 2006					
Worker rates health plan as very good or excellent					
Range of services available		4.3	4.4	5.5 *	6.6 **
Choice of doctors		4.0	3.7	6.0 **	4.4 *
Quality of care available		4.2	5.1 *	7.7 **	2.7 ^
Problems with health plan in past 12 months					
Had expensive medical bills for services not covered by health plan		-0.8	0.0	-0.9	-0.2
Doctor charged a lot more than health plan would pay		-1.0	0.5	-1.2	1.4
Told that doctor's office was not accepting their health plan		-0.1	0.7	0.8	1.6
Had unmet need for medical care or prescription drugs because of cost in the past 12 months		-2.2 *	-0.7	-1.8	-1.0

Source: 2006–2010 Massachusetts Health Reform Surveys (N=7,817 all workers; N=1,431 workers in small firms).
*(**) Value for year is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) Value for year is significantly different from the value in the previous year at the .05 (.01) level, two-tailed test.

EXHIBIT VII.4: 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 2010

	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010
PERCENT					
Worker rates health plan as very good or excellent					
Range of services available	58.6	64.4	63.3	70.6 *	71.1 *
Choice of doctors	65.9	71.1	70.9	75.3	74.1
Quality of care available	65.4	67.5	71.9	78.6 **	69.9
Problems with health plan in past 12 months					
Had expensive medical bills for services not covered by health plan	14.3	13.5	16.1	13.3	16.2
Doctor charged a lot more than health plan would pay	10.0	11.3	11.7	14.1	13.1
Told that doctor's office was not accepting their health plan	4.9	2.1	9.0 ^	5.4	6.7
Had unmet need for medical care or prescription drugs because of cost in the past 12 months	5.8	4.7	8.1	4.1	5.4
PERCENTAGE POINT CHANGE FROM FALL 2006					
Worker rates health plan as very good or excellent					
Range of services available		5.8	4.7	12.0 *	12.4 *
Choice of doctors		5.2	5.0	9.4	8.3
Quality of care available		2.1	6.5	13.2 **	4.5
Problems with health plan in past 12 months					
Had expensive medical bills for services not covered by health plan		-0.8	1.8	-1.0	1.9
Doctor charged a lot more than health plan would pay		1.2	1.7	4.1	3.1
Told that doctor's office was not accepting their health plan		-2.8	4.1 ^	0.5	1.8
Had unmet need for medical care or prescription drugs because of cost in the past 12 months		-1.2	2.3	-1.7	-0.4

Source: 2006–2010 Massachusetts Health Reform Surveys (N=1,431).
Note: Small firms are defined as having fewer than 51 employees.
*(**) Value for year is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) Value for year is significantly different from the value in the previous year at the .05 (.01) level, two-tailed test.

VIII. UNINSURED NONELDERLY ADULTS IN FALL 2010

KEY FINDINGS

- In fall 2010, 5.8 percent of nonelderly adults in Massachusetts were uninsured at the time the Massachusetts Health Reform Survey (MHRS) was fielded, 12.1 percent were uninsured at some point over the prior year, and 2.9 percent were uninsured for all of the prior year.
- Relative to the adults who were always insured over the year, adults who were ever uninsured had less of a connection to the health care system and used less health care. Only about 70 percent of the uninsured adults had a usual source of care, as compared to 93.1 percent of the insured adults. About two-thirds of the uninsured adults had had a visit to a general doctor, specialist, or non-physician provider over the past 12 months, as compared to 87.7 percent of the insured adults.
- Adults who were ever uninsured over the year reported more problems obtaining care and more problems paying for health care than did their insured counterparts. This included more unmet need for care (overall and because of costs), higher out-of-pocket health care spending, more problems paying medical bills, and more medical debt. Consistent with these findings, uninsured adults were more likely than insured adults to report that health care spending had caused financial problems for their family over the past year (45.3 percent as compared to 26.0 percent).
- While there was not a significant difference in the shares of insured and uninsured adults who had had an emergency department visit over the prior year, nearly one in five of the uninsured adults reported that their most recent visit was for a non-emergency condition, compared to roughly one in ten of the insured adults.
- Information on reasons for being uninsured is only available for those adults who were uninsured at the time of the survey. Among those uninsured adults, 59.0 percent reported that cost was the main reason they were uninsured. For uninsured adults with access to coverage through a job (18.3 percent), the majority (60.4 percent) reported that cost was the main reason they did not take up employer coverage.
- More than half of the adults who were uninsured at the time of the survey (52.4 percent) reported that they had tried to obtain coverage in response to the individual mandate but had not been able to find affordable coverage.

As was reported in Exhibit III.1, 5.8 percent of nonelderly adults in Massachusetts were uninsured at the time the survey was fielded in 2010, 12.1 percent were uninsured at some point over the prior year, and 2.9 percent were uninsured for all of the prior year. This chapter focuses primarily on the adults

who were ever uninsured over the prior year, comparing them to adults who were insured for all of the prior year. The samples of adults who were uninsured at the time of the survey and those uninsured for the entire year are too small to support in-depth analyses.

A. CHARACTERISTICS OF INSURED AND UNINSURED NONELDERLY ADULTS

Relative to those who were always insured over the prior year, nonelderly adults who were ever uninsured over the prior year tended to be younger, Hispanic, male, single, and without children (Exhibit VIII.1).[58] The uninsured adults were also less likely to be U.S. citizens.

Consistent with these demographic differences, uninsured adults were doing less well economically than the adults who were always insured. Uninsured adults were less likely to have a college degree and more likely to be unemployed. They also tended to have lower family incomes: more than a quarter of uninsured adults had a family income less than 100 percent of the federal poverty level (FPL) and nearly three-quarters were below 300 percent of the FPL, as compared to 13.2 percent and 39.8 percent, respectively, of those who were insured.

Uninsured adults were less likely than insured adults to report that their health status was very good or excellent (57.1 versus 65.9 percent). However, they were also less likely than insured adults to report several of the chronic diseases that were examined, including hypertension, heart disease, and diabetes.

Finally, somewhat more of the uninsured than the insured (16.7 versus 10.8 percent) were located in the Boston region of the state, and somewhat fewer uninsured than insured were located in the Central region (8.2 versus 12.8 percent).

B. HEALTH CARE ACCESS AND USE

Relative to adults who were covered for all of the past year, uninsured adults had less of a connection to the health care system (Exhibit VIII.2). Only about 70 percent of uninsured adults had a usual source of care, as compared to 93.1 percent of insured adults. Among those with a usual source of care, uninsured adults were more likely than insured adults to have had that relationship for less than one year (20.9 versus 6.4 percent).

Uninsured adults were more likely than insured adults to rely on a community health center or other public clinic as their usual source of care (22.9 versus 9.1 percent). While many of the factors driving the choice of usual source of care were similar for insured and uninsured adults, uninsured adults were more likely to cite costs, difficulty of getting an appointment, and language as a reason for selecting their usual source of care and they were less likely to cite the relationship with the doctors or staff or that the provider accepts their insurance or was in their health plan's network.

Uninsured adults were also much less likely to use care than insured adults (Exhibit VIII.3). For example, 87.7 percent of adults who were always insured over the past year had a visit to a general doctor; specialist; or nurse practitioner, physician assistant, or midwife over the past 12 months, while only 66.7 percent of uninsured adults received such care. Similarly, more than three-quarters of insured adults had a dental visit, as compared to fewer than half of uninsured adults.

In addition to lower levels of use, uninsured adults rated the quality of the care that they received lower than did insured adults. Among insured adults who used care over the past 12 months, 70.9 percent rated that care as very good or excellent, while only 46.8 percent of the uninsured adults rated their care that highly.

58 Appendix Exhibit VIII.1 provides a version of Exhibit VIII.1 that compares nonelderly adults who were uninsured at the time of the survey to adults with insurance at the time of the survey. With few exceptions, similar differences were reported between insured and uninsured adults based on coverage at the time of the survey and based on coverage over the prior year.

Consistent with their lower levels of use, uninsured adults reported more problems obtaining care and more unmet need for care than did insured adults across nearly all of the measures examined (Exhibit VIII.4). More than one-third of the uninsured adults reported problems getting care in the past 12 months, as compared to 19.2 percent of insured adults. Similarly, more than half of the uninsured adults reported that they delayed or did not get needed care over the past year, as compared to 36.2 percent of insured adults. Among those who reported unmet need for care, 84.2 percent of the uninsured adults and 53.2 percent of the insured adults reported that the cost of care was a reason for that unmet need.

In contrast to the differences in health care use in general, there were fewer differences in the need for and use of after-hours care between insured and uninsured adults (Exhibit VIII.5). Equal shares of insured and uninsured adults reported a need for such care (about 20 percent) and the two groups of adults reported similar reasons for needing that type of care. The insured and uninsured adults also reported going to similar places for their after-hours care, although insured adults were more likely to rely on urgent care clinics and retail clinics than were uninsured adults.

Although similar shares of uninsured and insured adults reported emergency department visits over the past year, uninsured adults were more likely to report that their most recent emergency department visit was for a non-emergency condition (20.1 versus 11.1 percent). Among those with a non-emergency emergency department visit, insured adults were more likely to report the visits were because they needed care after-hours or that they were told by their doctor's office or clinic to go to the emergency department.

C. AFFORDABILITY OF HEALTH CARE

As would be expected, given their lack of insurance coverage, uninsured adults reported more problems with health care costs than did insured adults (Exhibit VIII.6). This includes greater shares reporting that they spent high percentages of family income on out-of-pocket health care costs and that they had less confidence in their ability to afford health care in the coming year. At the same time, more uninsured adults than insured adults reported spending less on health care in 2010 than they had in the prior year (22.9 versus 7.0 percent). However, as discussed below, the uninsured also were more likely to report unmet need for care because of costs.

About 45 percent of uninsured adults reported that their health care spending in 2010 had caused financial problems for their family, as compared to 26.0 percent of insured adults. The uninsured were more likely than their insured counterparts to report that they had responded to those problems by cutting back on health care (73.3 versus 49.1 percent) and increasing their work effort (50.4 versus 37.5 percent).

Uninsured adults were also more likely than insured adults to report problems paying medical bills (35.1 versus 15.1 percent). However, the type of care that generated those bills and the reported reasons that the care was needed were both quite similar for insured and uninsured adults who had such problems. The one significant difference was for dental care, which was reported to be a reason for problems with medical bills for 41.2 percent of insured adults, as compared to 27.8 percent of uninsured adults. As noted earlier, uninsured adults were much less likely than insured adults to use dental care in the first place (Exhibit VIII.3).

Medical debt was also more of a problem for uninsured adults, with 31.0 percent of uninsured adults reporting medical bills that they were paying off over time versus 18.7 percent of insured adults. In addition, among those with medical debt, a high level of medical debt was more common for uninsured adults, with 14.6 percent owing $10,000 or more, as compared to 3.9 percent of insured adults.

Not surprisingly, given the greater burden of health care costs for uninsured adults, unmet need due to costs was higher for uninsured than insured adults (Exhibit VIII.8). More than one-third of uninsured adults reported that they did not get needed care over the past year because of costs, as compared to 10.7 percent of insured adults. Such unmet need was higher for uninsured adults than insured adults across all of the types of care examined.

D. COVERAGE, COVERAGE OPTIONS, REASONS FOR BEING UNINSURED, AND THE IMPACT OF THE INDIVIDUAL MANDATE FOR UNINSURED ADULTS

Roughly half of the nonelderly adults who were ever uninsured over the prior year were insured at the time of the survey in fall 2010 (Exhibit X.9). Among those adults, roughly one-third had employer-sponsored insurance (ESI) coverage (35.0 percent) and two-thirds had public or other coverage (65.0 percent). Among lower-income uninsured adults, the latter was primarily public coverage, while direct purchase coverage was more common among higher-income uninsured adults (data not shown).[59] Among the adults who were uninsured at the time of the survey, more than half (51.8 percent) reported that they had never had insurance coverage, 19.0 percent reported having ESI coverage before they became uninsured, and 29.2 percent reported public or other coverage before they became uninsured.

Among the adults who were uninsured at the time of the survey, 18.3 percent reported that they currently had access to ESI coverage through a job (Exhibit VIII.10). Cost was the major reason these adults had not taken up that ESI coverage, and cost was also the major reason uninsured adults without access to ESI coverage reported being uninsured. More than half of the uninsured adults (52.4 percent) reported that they had tried to obtain coverage in response to the individual mandate but had not been able to find affordable coverage. Another 21.3 percent reported that they had decided not to obtain coverage and to pay the penalty for being uninsured.

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59 As mentioned in Chapter II, there is some evidence of misreporting of type of insurance coverage in surveys, including the MHRS. As a result, we are not confident of the point estimates for the shares of adults with different types of coverage. However, that misreporting is unlikely to affect the broad patterns of reported type of coverage, including the preponderance of public coverage among lower-income adults and the greater share of direct purchase among higher-income adults within the public and other category.

EXHIBIT VIII.1: CHARACTERISTICS OF INSURED AND UNINSURED MASSACHUSETTS ADULTS 19 TO 64, FALL 2010

	ALWAYS INSURED IN PAST YEAR	EVER UNINSURED IN PAST YEAR	DIFFERENCE
PERCENT			
AGE			
19 to 25 years	14.8	30.7	-15.9 **
26 to 34 years	16.9	20.0	-3.0
35 to 49 years	36.2	28.8	7.4 *
50 to 64 years	32.1	20.5	11.6 **
RACE/ETHNICITY			
White, non-Hispanic	80.8	68.2	12.6 **
Non-white, non-Hispanic	12.2	15.8	-3.6
Hispanic	7.0	16.0	-9.0 **
FEMALE	52.5	40.4	12.1 **
U.S. CITIZEN	93.7	87.3	6.4 **
MARITAL STATUS			
Married	55.9	30.7	25.2 **
Living with partner	7.9	12.5	-4.6 *
Divorced, separated, widowed	12.4	15.7	-3.3
Never married	23.9	41.1	-17.3 **
PARENT OF ONE OR MORE CHILDREN UNDER 18	40.2	30.7	9.5 **
EDUCATION			
Less than high school	5.0	8.4	-3.4
High school graduate (includes some college)	45.3	70.8	-25.5 **
College graduate or higher	49.7	20.9	28.8 **
WORK STATUS			
Full-time	54.4	36.7	17.7 **
Part-time	18.8	20.7	-1.9
Not working	26.8	42.6	-15.8 **
SELF-EMPLOYED	9.4	12.1	-2.7
WORKS AT A FIRM WITH FEWER THAN 51 EMPLOYEES	14.2	22.9	-8.8 *
SELF-REPORTED HEALTH STATUS			
Very good or excellent	65.9	57.1	8.8 *
Good	21.6	29.9	-8.3 *
Fair or poor	12.5	13.0	-0.5
ANY CHRONIC CONDITION[a]	51.2	47.1	4.2
Hypertension	21.4	12.2	9.2 **
Heart disease	4.7	2.2	2.5 **
Diabetes	7.3	4.0	3.3 *
Asthma	15.1	11.9	3.3

continued

EXHIBIT VIII.1: (CONTINUED)

	ALWAYS INSURED IN PAST YEAR	EVER UNINSURED IN PAST YEAR	DIFFERENCE
ACTIVITIES ARE LIMITED BY HEALTH PROBLEM	17.5	20.4	-2.9
FAMILY INCOME RELATIVE TO THE FEDERAL POVERTY LEVEL (FPL)			
Less than 100% of FPL	13.2	25.9	-12.7 **
100-299% of FPL	26.6	47.2	-20.5 **
300-499% of FPL	22.5	18.9	3.6
500% of FPL or more	37.7	8.0	29.7 **
REGION			
Boston	10.8	16.7	-5.9 *
MetroWest	33.0	31.2	1.8
Northeast	11.3	12.9	-1.6
Central	12.8	8.2	4.6 *
West	12.9	10.1	2.8
Southeast	19.2	20.9	-1.7

Source: 2010 Massachusetts Health Reform Survey (N=2,494 insured; N=438 uninsured).

*(**) Significantly different from the value for always insured adults 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 VIII.2: USUAL SOURCE OF CARE AND CARE COORDINATION FOR INSURED AND UNINSURED ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2010

	ALWAYS INSURED IN PAST YEAR	EVER UNINSURED IN PAST YEAR	DIFFERENCE
PERCENT			
Has a usual source of care (excluding the emergency department [ED])	93.1	70.2	23.0 **
Among those with a usual source of care, site of usual source of care			
Doctor's office or private clinic	81.4	64.0	17.4 **
Community health center or other public clinic	9.1	22.9	-13.8 **
Hospital outpatient department	6.9	7.7	-0.8
Other site	2.1	2.7	-0.6
Unknown/missing site	0.6	2.8	-2.2 *
Reports ED is usual source of care	2.0	9.2	-7.3 **
Among those with a usual source of care, length of relationship			
Less than 1 year	6.4	20.9	-14.5 **
1 to less than 3 years	13.2	17.3	-4.0
3 to less than 5 years	13.3	14.0	-0.7
5 years or more	67.1	47.8	19.3 **
Among those with a usual source of care, reasons to go to that provider			
Location is convenient	73.3	78.1	-4.8
Hours are convenient	57.1	64.2	-7.1
Costs less than other places	16.0	35.9	-19.9 **
Easier to get an appointment than other places	48.9	60.8	-11.8 **
Offers services beyond medical care	11.1	15.6	-4.5
For those born outside the US, has staff who speak same language	6.3	11.6	-5.2 *
Quality of care is better than other places	71.1	60.6	10.4
Relationship with doctors/staff	23.9	14.1	9.7 **
Other medical services in same building (e.g. x-ray)	3.6	6.8	-3.2
Recommended/good reputation	4.2	4.2	0.0
Accepts health insurance/in network	5.9	3.2	2.7 *
Among those with a usual source of care, share visiting multiple providers in the past 12 months	50.5	34.5	16.0 **
Among those with a usual source of care and visiting multiple providers, share with help coordinating their care	68.5	56.1	12.4

Source: 2010 Massachusetts Health Reform Survey (N=2,494 insured; N=438 uninsured).
*(**) Significantly different from the value for always insured adults at the .05 (.01) level, two-tailed test.

EXHIBIT VIII.3: OUTPATIENT, INPATIENT, AND PRESCRIPTION DRUG USE FOR ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2010

	ALWAYS INSURED IN PAST YEAR	EVER UNINSURED IN PAST YEAR	DIFFERENCE
PERCENT			
Any health care visit in the past 12 months	90.4	71.1	19.3 **
Any visit to a general doctor, specialist, nurse practitioner, physician assistant, or midwife in the past 12 months	87.7	66.7	20.9 **
Any doctor or specialist visit in the past 12 months	97.2	84.3	12.8 **
Any general doctor visit in past 12 months	88.8	68.0	20.8 **
Visit for preventive care	84.5	61.1	23.4 **
Multiple doctor visits	78.8	53.9	24.9 **
Any visits to a nurse practitioner, physician assistant, or midwife in place of a general doctor in past 12 months	72.9	46.6	26.3 **
Any general doctor visit or visit to a nurse practitioner, physician assistant, or midwife in the past 12 months	37.3	26.7	10.6 *
Any specialist visit in past 12 months	56.4	34.2	22.2 **
Any dental care visit in past 12 months	76.5	46.6	29.8 **
Any hospital stay in the past 12 months (excluding to have a baby)	9.3	10.0	-0.6
Took any prescription drugs in past 12 months	59.5	39.7	19.8 **
Among those who used care in the past 12 months, share rating quality of care as very good or excellent	70.9	46.8	24.1 **

Source: 2010 Massachusetts Health Reform Survey (N=2,494 insured; N=438 uninsured).
*(**) Significantly different from the value for always insured adults at the .05 (.01) level, two-tailed test.

EXHIBIT VIII.4: PROBLEMS OBTAINING CARE AND UNMET NEED FOR CARE FOR INSURED AND UNINSURED ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2010

	ALWAYS INSURED IN PAST YEAR	EVER UNINSURED IN PAST YEAR	DIFFERENCE
PERCENT			
Had problems getting care in the past 12 months	19.2	35.4	-16.2 **
Told by doctor's office or clinic they were not accepting new patients	12.2	16.2	-4.0
Told by doctor's office or clinic they were not accepting insurance type	9.8	22.4	-12.6 **
Had to change to a new provider because of a change in insurance plans	7.9	19.6	-11.6 **
Among those with problems getting care, problems were with			
Primary care	67.3	67.0	0.3
Specialty care	44.8	43.8	1.0
Did not get or postponed getting needed care for any reason in past 12 months	36.2	53.7	-17.6 **
Doctor care	11.1	29.1	-18.0 **
Specialist care	10.9	23.0	-12.1 **
Medical tests, treatment, or follow-up care	12.2	26.0	-13.8 **
Preventive care screening	7.2	17.7	-10.5 **
Prescription drugs	10.5	23.3	-12.8 **
Dental care	20.0	34.3	-14.3 **
Did not get needed care for any reason in past 12 months	20.2	41.2	-21.0 **
Doctor care	4.1	18.2	-14.0 **
Specialist care	4.5	13.5	-9.0 **
Medical tests, treatment, or follow-up care	5.4	17.9	-12.5 **
Preventive care screening	3.1	13.8	-10.7 **
Prescription drugs	5.5	14.1	-8.6 **
Dental care	9.5	25.1	-15.7 **
Among those who did not get needed care in the past 12 months, reasons for not getting care			
Cost of care	53.2	84.2	-31.0 **
Trouble finding a provider who would see them	14.8	15.8	-1.1
Trouble getting an appointment with a provider	19.5	15.2	4.4
Difficulty getting to the place of care	11.4	9.6	1.8
Hours care available were not convenient	12.4	6.1	6.3 *

Source: 2010 Massachusetts Health Reform Survey (N=2,494 insured; N=438 uninsured).
*(**) Significantly different from the value for always insured adults at the .05 (.01) level, two-tailed test.

EXHIBIT VIII.5: AFTER-HOURS CARE AND EMERGENCY DEPARTMENT USE FOR INSURED AND UNINSURED ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2010

	ALWAYS INSURED IN PAST YEAR	EVER UNINSURED IN PAST YEAR	DIFFERENCE
PERCENT			
Needed after-hours care in past 12 months	20.1	19.4	0.7
Among those who needed after-hours care, reason for most recent episode of after-hours care			
Needed care right away	66.6	67.4	-0.8
Not able to get to doctor's office or clinic during regular hours	32.1	30.1	2.0
Other reasons/do not know	1.3	2.4	-1.1
Among those who needed after-hours care, site of most recent after-hours care			
Did not get after-hours care	7.8	5.1	2.7
Hospital emergency department (ED)	60.4	69.1	-8.7
Urgent care center	8.7	2.8	5.9 *
Retail clinic	5.8	0.5	5.3 **
Community health center or other public clinic	5.7	5.8	-0.2
Doctor's office	3.5	11.3	-7.8
Doctor was on call / via phone	5.7	2.0	3.7
Other place	2.3	3.3	-1.0
Any ED visits in past 12 months	29.5	36.4	-6.8
Three or more ED visits	7.3	5.8	1.5
Most recent ED visit was for non-emergency condition[a]	11.1	20.1	-9.0 **
Among those with most recent ED visit for non-emergency condition, reasons for that visit			
Unable to get appointment at doctor's office or clinic as soon as needed	57.6	46.8	10.8
Needed care after normal hours for doctor's office or clinic	77.3	60.2	17.1 *
More convenient to go to ED	53.8	63.8	-10.0
Told by doctor's office or clinic to go to ED	37.1	22.9	14.1 *

Source: 2010 Massachusetts Health Reform Survey (N=2,494 insured; N=438 uninsured).

*(**) Significantly different from the value for always insured adults 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 VIII.6: HEALTH CARE SPENDING FOR INSURED AND UNINSURED ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2010

	ALWAYS INSURED IN PAST YEAR	EVER UNINSURED IN PAST YEAR	DIFFERENCE
PERCENT			
Out-of-pocket (OOP) health care spending over the past 12 months			
Less than $500	38.1	48.2	-10.1 **
$500 to $999	16.6	14.0	2.6
$1,000 to $4,999	36.5	25.9	10.6 **
$5,000 or more	7.1	9.8	-2.7
Do not know/refused	1.8	2.2	-0.4
OOP health care spending over the past 12 months relative to family income			
At 5% or more of family income for those less than 600% of the federal poverty level (FPL)[a]	15.9	23.7	-7.9 *
At 10% or more of family income for those less than 600% of FPL[a]	5.3	11.6	-6.3 **
Assessment of total health care spending in 2010 relative to the prior year			
More than last year	51.1	37.2	13.8 **
About the same as last year	40.8	37.9	2.8
Less than last year	7.0	22.9	-15.9 **
Do not know/refused	1.2	2.0	-0.8
Confidence in ability to afford health care in the coming year			
Very confident	36.7	13.8	22.9 **
Somewhat confident	40.7	35.1	5.5
Not too confident	14.7	22.6	-8.0 *
Not confident at all	6.8	27.6	-20.8 **
Do not know/refused	1.2	0.8	0.4

Source: 2010 Massachusetts Health Reform Survey (N=2,494 insured; N=438 uninsured).

*(**) Significantly different from the value for always insured adults at the .05 (.01) level, two-tailed test.

[a] Because of the way the income information is collected in the survey, the measure of OOP spending relative to family income cannot be constructed for adults with family income above 600 percent of FPL.

EXHIBIT VIII.7: FINANCIAL PROBLEMS DUE TO HEALTH CARE COSTS FOR INSURED AND UNINSURED ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2010

	ALWAYS INSURED IN PAST YEAR	EVER UNINSURED IN PAST YEAR	DIFFERENCE
PERCENT			
Health care spending in 2010 reported to have caused financial problems for family	26.0	45.3	-19.2 **
Among those with financial problems caused by health care spending, reported changes made in response to those problems			
Cut back on health care	49.1	73.3	-24.2 **
Cut back on other spending	86.3	89.4	-3.0
Cut back on savings or took money from savings	78.2	77.4	0.8
Increased work hours or took another job	37.5	50.4	-12.9 *
Had problems paying medical bills in past 12 months	15.1	35.1	-20.1 **
Among those with problems paying medical bills, type of care that generated those bills			
Doctor care	69.5	68.1	1.4
Hospital care	53.9	57.3	-3.4
Dental care	41.2	27.8	13.4 *
Vision care	19.7	16.7	3.0
Prescription drugs	37.5	38.5	-1.0
Other types of medical care	30.8	30.9	-0.1
Among those with problems paying medical bills, reason for care that generated those bills			
Birth of a child	4.6	4.7	-0.1
Ongoing treatment for chronic condition or long-term health problem	44.8	44.2	0.7
Medical test or surgical procedure	48.2	48.6	-0.4
Emergency care	48.7	53.4	-4.7
Have medical bills that are paying off over time	18.7	31.0	-12.2 **
Among those paying medical bills over time, amount of medical debt			
Less than $2,000	58.0	50.8	7.1
$2,000 to $9,999	38.1	34.6	3.5
$10,000 or more	3.9	14.6	-10.7 *
Among those paying medical bills over time, year problems paying medical bills began			
Within the last year	52.4	60.9	-8.5
Between one and two years ago	20.9	11.3	9.6 *
Between two and five years ago	19.4	20.8	-1.4
Five years ago or more	7.4	7.0	0.4
Had problems paying other bills in past 12 months	22.1	47.3	-25.2 **

Source: 2010 Massachusetts Health Reform Survey (N=2,494 insured; N=438 uninsured).
*(**) Significantly different from the value for always insured adults at the .05 (.01) level, two-tailed test.

EXHIBIT VIII.8: UNMET NEED FOR CARE DUE TO COSTS FOR INSURED AND UNINSURED ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2010

	ALWAYS INSURED IN PAST YEAR	EVER UNINSURED IN PAST YEAR	DIFFERENCE
PERCENT			
Did not get needed care because of costs in the past 12 months	10.7	34.6	-23.9 **
Doctor care	1.7	14.6	-12.9 **
Specialist care	1.7	9.8	-8.0 **
Medical tests, treatment, or follow-up care	2.3	13.3	-10.9 **
Preventive care screening	1.1	11.1	-10.0 **
Prescription drugs	3.3	12.3	-9.0 **
Dental care	6.1	20.2	-14.1 **

Source: 2010 Massachusetts Health Reform Survey (N=2,494 insured; N=438 uninsured).
*(**) Significantly different from the value for always insured adults at the .05 (.01) level, two-tailed test.

EXHIBIT VIII.9: UNINSURANCE AMONG MASSACHUSETTS ADULTS 19 TO 64, FALL 2010

	PERCENT
Ever uninsured over the past year	12.1
Uninsured at the time of the survey	5.8
Uninsured for the full year	2.9
Among adults who were insured at the time of the survey but were uninsured at some point in the past year, current insurance coverage	
Employer-sponsored insurance (ESI) coverage	35.0
Public or other coverage	65.0
Among adults who were uninsured at the time of the survey, prior insurance coverage	
ESI coverage	19.0
Public or other coverage	29.2
Never covered	51.8

Source: 2010 Massachusetts Health Reform Survey (N=3,032).

EXHIBIT VIII.10: COVERAGE OPTIONS, REASONS FOR BEING UNINSURED, AND IMPACT OF THE INDIVIDUAL MANDATE FOR CURRENTLY UNINSURED MASSACHUSETTS ADULTS 19 TO 64, FALL 2010

	PERCENT
Had access to employer-sponsored insurance (ESI) coverage through a job	18.3
Among those adults, main reason did not take up ESI coverage	
Cost	60.4
Other reason	39.6
Do not know	0.0
Main reason for not having health insurance	
Cost	59.0
Other reason	37.8
Do not know	3.1
Reported impact of individual mandate	
Tried to obtain coverage but couldn't find affordable coverage	52.4
Exempt from the mandate	8.9
Decided not to obtain coverage and pay the penalty	21.3
Some other response to the individual mandate	7.3
Did not answer question	10.0
Paid a penalty for not having insurance coverage in the prior year	16.7
Requested an exemption from the mandate or filed a hardship appeal	7.8

Source: 2010 Massachusetts Health Reform Survey (N=295).

IX. LOOKING AHEAD

Massachusetts' 2006 reform initiative, the template for national reform, continued to fare well in fall 2010, despite a severe economic downturn and the continued escalation of health care costs in the state. Uninsurance in the state remained at an historically low level in fall 2010, with employer-sponsored insurance continuing to be strong. There are no signs that employers in Massachusetts have responded to reform by dropping coverage for their workers or scaling back in key aspects of the scope of coverage. Employer-sponsored coverage remains the dominant source of insurance coverage in the state.

Perhaps not surprising, given that Massachusetts has maintained near-universal coverage for the last three years, access to health care in Massachusetts is better than it was in fall 2006-—including better access to doctor care; specialist care; medical tests, treatment, and follow-up care; and preventive care screenings. And for the first time, in fall 2010, there were reductions in emergency department use, including reductions in multiple visits and visits for non-emergency conditions, and in inpatient hospital stays. Combined with increases in the use of outpatient care and reductions in unmet need for care, these declines in inpatient and emergency department use are suggestive of important improvements in the effectiveness of the delivery of health care in the state. Analyses of other, administrative, data sources are needed to assess the implications of these changes in more depth.

Despite these significant achievements, Massachusetts continues to struggle with escalating health care costs, reflecting the decision to defer addressing costs in the 2006 legislation so as not to hold up the expansion in coverage. Consequently, the affordability of health care and financial problems related to high health care costs are burdens for many families in the state. In the absence of any intervention, the burden of high health care costs will worsen, as health care spending per capita in Massachusetts, already the highest in the country, is projected to nearly double between 2010 and 2020.[60]

Beginning with the Massachusetts Health Care Quality and Cost Council[61] that was created as part of the 2006 legislation, Massachusetts has invested considerable public and private resources over the past five years into understanding the drivers of health care costs in the state.[62] That work has supported wide-ranging discussions across stakeholders of potential strategies to "bend the curve," including extensive public hearings on health care costs sponsored by the Division of Health Care Finance and Policy in 2010 and 2011. There is strong consensus in the state on the need to address rising health

60 Massachusetts Health Care Quality and Cost Council. *Roadmap to Cost Containment: Massachusetts Health Care Quality and Cost Council Final Report.* Boston, MA: Massachusetts Healthcare Quality and Cost Council, October 21, 2009. Available at http://www.mass.gov/Ihqcc/docs/roadmap_to_cost_containment_nov-2009.pdf.

61 http://www.mass.gov/?pageID=hqcchomepage&L=1&L0=Home&sid=Ihqcc.

62 This includes annual public hearings on cost trends sponsored by the Massachusetts Division of Health Care Finance and Policy (DHCFP) (http://www.mass.gov/dhcfp/costtrends), and numerous reports by DHCFP, the Massachusetts Attorney General, and other public and private sources.

care costs and, increasingly, consensus on the best way to do so. In a 2011 legislation proposal, Massachusetts Governor Deval Patrick made a number of changes to address costs, including encouraging integrated care networks and a move away from fee-for-service payments to alternative payment methods.[63] There have been efforts in that direction by providers and insurers in the state as well.[64]

Going forward, the success of health reform under the *Patient Protection and Affordable Care Act* (ACA) in Massachusetts, and in the rest of the country, will depend on the ability of policymakers and stakeholders to come together to take on the considerable challenge of reining in health care costs. Massachusetts has the opportunity to lead the way here, much as the state did in the push toward universal coverage. The pre-2010 status quo of health care costs growing faster than wages year after year is not a sustainable option for Massachusetts or the nation.

63 Patrick, D. Filing Letter for *An Act Improving the Quality of Health Care and Controlling Costs by Reforming Health Systems and Payments.* February 17, 2011.

64 Chernew, M.E., Mechanic, R.E., Landon, B.E., and Safran, D.G. Private-Payer Innovation in Massachusetts: The 'Alternative Quality Contract.' *Health Affairs, 2011,* (30)1:51-61.

APPENDIX A: SUMMARY OF FINDINGS FROM PRIOR RESEARCH EXAMINING THE IMPACTS OF HEALTH REFORM IN MASSACHUSETTS ON HEALTH INSURANCE COVERAGE, ACCESS TO AND USE OF HEALTH CARE, AND THE AFFORDABILITY OF CARE FOR INDIVIDUALS

This appendix summarizes the findings from prior studies using the Massachusetts Health Reform Survey (MHRS), national surveys, and administrative data to examine changes in health insurance coverage, in access to and use of health care, and in health care affordability for nonelderly adults in Massachusetts after the implementation of its health reform law, *An Act Providing Access To Affordable, Quality, Accountable Health Care* (Chapter 58).[1] The national surveys that have been used include the Current Population Survey (CPS), the National Health Interview Survey (NHIS), and the Behavioral Risk Factor Surveillance System (BRFSS).

Impacts on insurance coverage. Appendix Exhibit A1 summarizes the studies that have examined the impacts of health reform on health insurance coverage for nonelderly adults in Massachusetts.[2] Studies using the MHRS, which provides data for Massachusetts only, have relied on pre-post comparisons. In contrast, studies using other data sources have generally taken advantage of the availability of data for other states to use the stronger difference-in-differences model to assess the impacts of health reform in Massachusetts (Wooldridge, 2002).

Despite the differences in data sources and methods, there is general consistency in the core findings across the studies. The studies all find gains in insurance coverage for nonelderly adults under health reform, with estimates of the increase in coverage ranging from 2 to 8 percentage points over the 2007 to 2009 post-reform period. Differences in the precise point estimates likely reflect differences in data sources and methods as well as differences in the specific pre- and post-reform time periods used in the studies. In particular, post-reform time periods ranged from estimates for the first year after implementation began (2007) to estimates following the implementation of nearly all of the core elements of reform (2009).

1 In addition to the work that has focused on the impacts of health reform on insurance coverage for nonelderly adults, two studies have examined the impacts of health reform on insurance coverage for children in Massachusetts (Kenney, Long, and Luque, 2010; Yelowitz and Cannon, 2010). The two studies, which rely on the CPS, report gains of 2 to 3 percentage points in overall insurance coverage for children under health reform in Massachusetts.

2 The focus here is on the findings for the overall nonelderly population. A number of the studies also examine the impacts of reform on important subgroups of the population, including lower-income adults, younger adults, adults with chronic conditions, men and women, and racial/ethnic minorities, among others.

Impacts on access to and use of health care. Appendix Exhibit A2 summarizes the findings from research that has examined access to and use of care among nonelderly adults under health reform in Massachusetts. There has been less work on this topic than insurance coverage, reflecting the more limited data sources available for examining access to and use of care overall and within individual states in particular. Research on the impacts of health reform on health care access and use is also limited by the expected lag in the impact of the expansion of insurance coverage on the individual's health care access and use and the nature of the access and use questions included in the surveys. That is, survey questions generally focus on the individual's experiences over the prior year, unlike measures of current insurance coverage. As a result, we have less timely information on changes in access to and use of health care under health reform than we do on insurance coverage.

Overall, the findings from studies using the MHRS are consistent with the expected lag in observing changes in health care access and use under health reform: there were few improvements in access to care or increases in health care use in 2007 (Long, 2008), with greater gains observed in subsequent years (Long and Masi, 2009; Long and Stockley, 2010). By 2009, there were increases in the share of nonelderly adults reporting that they had a usual source of health care, increases in the shares reporting outpatient visits and the use of prescription drugs, and decreases in the shares reporting going without health care that they needed. Findings from studies based on the BRFSS and NHIS also provide evidence of some gains in access to and use of care under health reform, although the findings are not entirely consistent across the studies. For example, in work using the BRFSS, Tinsley et al. (2010) report an increase in the share of nonelderly adults with a personal health care provider under health reform in Massachusetts, while Zhu et al. (2010) report no change in that measure.

Impacts on the affordability of health care. Appendix Exhibit A3 summarizes the findings from studies that have looked at the impacts of health reform on affordability of care for nonelderly adults in Massachusetts. As with the studies focusing on insurance coverage and health care access and use, the findings from these studies are generally consistent. All show improvements in the affordability of health care, particularly in terms of reductions in the share of adults going without needed care because of costs—the one measure available across all three data sets. Findings from studies using the MHRS, which provides a broader set of measures on affordability of care, suggests that there were stronger gains in the affordability of care for individuals in the early period after health reform (Long, 2008), but those gains eroded over time (Long and Masi, 2009; Long and Stockley, 2010).

REFERENCES FOR APPENDIX A

Clark, C.R., Soukup, J., Govindarajulu, U., Rinden, H.E., Tovar, D.A., and Johnson, P.A. Lack of Access Due to Costs Remains A Problem For Some in Massachusetts Despite The State's Health Reforms. *Health Affairs, 30(2)*:247-255.

Kenney, G.M., Long, S.K., and Luque, A. Health Reform In Massachusetts Cut The Uninsurance Rate Among Children In Half. *Health Affairs, 29(6)*:1242-1247.

Long, K. On the Road to Universal Coverage: Impacts of Reform in Massachusetts at One Year. *Health Affairs, 27(4)*:270-284.

Long, S.K. and Masi, P.B. Access to and Affordability of Care: An Update on Health Reform in Massachusetts, Fall 2008. *Health Affairs, 2009*:w578-w587.

Long, S.K. and Stockley, K. *Health Reform in Massachusetts: An Update on Insurance Coverage and Support for Reform as of Fall 2008*. Washington, DC: Urban Institute, 2009. Available at www.urban.org.

Long, S.K. and Stockley, K. Sustaining Health Reform In A Recession: An Update on Massachusetts As of Fall 2009. *Health Affairs, 29(6)*:1234-1241.

Long, S.K. and Stockley, K. The Impacts of State Health Reform Initiatives on Adults in New York and Massachusetts. *Health Services Research, 46(1)*:365-387.

Long, S.K., Stockley, K., and Yemane, A. Another Look at the Impacts of Health Reform in Massachusetts: Evidence Using New Data and a Stronger Model. *American Economic Review, 99(2)*:508-511.

Massachusetts Division of Health Care Finance and Policy. *Health Care in Massachusetts: Key Indicators*. November report 2010. Boston, MA: Division of Health Care Finance and Policy. Available at www.mass.gov.

Tinsley, L., Andrews, B., and Hawk, H. Short-Term Effects of Health-Care Coverage Legislation—Massachusetts, 2008. *Morbidity and Mortality Weekly Report, 58(09)*:262-267.

Wooldridge, J.M. *Econometric Analysis of Cross Section and Panel Data*. Cambridge, MA: MIT Press, 2002.

Yelowitz, A. and Cannon, M.F. *The Massachusetts Health Plan: Much Pain, Little Gain*. Washington, DC: Cato Institute Policy Analysis, 2010. Available from www.cato.org.

Zhu, J., Brawarsky, P., Lipsitz, S., Huskamp, H., and Haas, J.S. Massachusetts Health Reform and Disparities in Coverage, Access and Health Status. *Journal of General Internal Medicine, 25(12)*:1356-1362.

APPENDIX EXHIBIT A1: SUMMARY OF STUDIES ADDRESSING THE IMPACTS OF HEALTH REFORM ON INSURANCE COVERAGE FOR NONELDERLY ADULTS IN MASSACHUSETTS

STUDY	POPULATION EXAMINED / DATA SOURCE / SAMPLE SIZE FOR MASSACHUSETTS	ANALYTIC FRAMEWORK	COVERAGE MEASURES EXAMINED	SUMMARY OF KEY FINDINGS[a]	COMMENTS / ISSUES
MASSACHUSETTS HEALTH REFORM SURVEY (MHRS)					
Long (2008) in *Health Affairs*[b]	Adults 18–64; Fall 2006–Fall 2007 MHRS; N for MA = 5,944	Pre-post regression models	Coverage at a point in time; Type of coverage: employer-sponsored insurance (ESI) and public/other coverage; Uninsurance over the past year	Increase in insurance coverage (up 5.6 percentage points in fall 2007), with increases in ESI and public/other coverage; Reduction in ever uninsured over the past year	Pre-reform (2006) and post-reform (2007) time periods are short
Long and Stockley (2009), *Urban Institute publication*[b]	Adults 18–64; Fall 2006–Fall 2009 MHRS; N for MA = 9,985	Pre-post regression models	Coverage at a point in time; Type of coverage: ESI and public/other coverage; Uninsurance over the past year	Increase in insurance coverage (up 7.9 percentage points in fall 2008), with increases in ESI and public/other coverage; Reduction in ever uninsured and always uninsured over the past year	Pre-reform (2006) and post-reform (2007–2008) time periods are short; Pre-post comparisons may be confounded by the recession and other factors
Long and Stockley (2010) in *Health Affairs*[b]	Adults 18-64; Fall 2006–Fall 2009 MHRS; N for MA = 13,150	Pre-post regression models	Coverage at a point in time; Type of coverage: ESI and public/other coverage; Uninsurance over the past year	Increase in insurance coverage (up 7.7 percentage points in fall 2009), with increases in ESI and public/other coverage; Reduction in ever uninsured and always uninsured over the past year	Pre-reform (2006) and post-reform (2007–2009) time periods are short; Pre-post comparisons may be confounded by the recession and other factors
BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM (BRFSS)					
Zhu et al. (2010) in *Journal of General Internal Medicine*	Adults 18–64; 2006–2008 BRFSS; N = 36,505	Difference-in-differences regression models	Coverage at a point in time	Increase in insurance coverage[c]	Pre-reform (2006) and post-reform (2007–2008) time periods are short

APPENDIX EXHIBIT A1: (CONTINUED)

STUDY	POPULATION EXAMINED / DATA SOURCE / SAMPLE SIZE FOR MASSACHUSETTS	ANALYTIC FRAMEWORK	COVERAGE MEASURES EXAMINED	SUMMARY OF KEY FINDINGS[a]	COMMENTS / ISSUES
BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM (BRFSS) (CONTINUED)					
Tinsley, Andrews, Hawk, and Cohen (2010) in *Morbidity and Mortality Weekly Report*	Adults 18–64; 2005–2008 BRFSS; N = 34,232	Pre-post models	Coverage at a point in time; Type of coverage: private (ESI or direct purchase), public (Medicare, Medicaid, other state programs, coverage related to military service), and other	Insurance coverage increased (up 5 percentage points in 2007/2008), with private coverage (ESI and direct purchase) reduced and public coverage increased	Post-reform (2007–2008) time period is short; Pre-post comparisons may be confounded by the recession and other factors
Clark et al. (2011) in *Health Affairs*	Adults 18–64; 1996–2008 BRFSS; N = 88,667	Pre-post regression models	Coverage at a point in time	Increase in insurance coverage (up 8 percentage points in 2007/2008)	Post-reform (2007–2008) time period is short; Pre-post comparisons may be confounded by the recession and other factors
NATIONAL HEALTH INTERVIEW SURVEY (NHIS)					
Long and Stockley (2011) in *Health Services Research*	Adults 19–64; 2003–2008 NHIS; N = 4,477	Difference-in-differences regression models	Coverage at a point in time; Type of coverage: ESI and public/other coverage	Increase in insurance coverage (up 2 to 3 percentage points in 2007/2008), with increase in public/other coverage and no change in ESI coverage	Post-reform (2007–2008) time period is short; Small sample sizes
CURRENT POPULATION SURVEY (CPS)					
Yelowitz and Cannon (2010), *CATO Institute publication*	Adults 18–64; 2006–2009 CPS; N for MA not reported	Difference-in-differences regression models	Coverage over the prior calendar year; Whether have private coverage (ESI and direct purchase)	Increase in insurance coverage (up 6.7 percentage points in 2007/2008), with an increase in private coverage (ESI and direct purchase)	Post-reform (2007–2008) time period is short; There are some additional concerns about study data and methods (Long, 2010)
Long, Stockley, and Yemane (2009) in *American Economic Review*	Adults 19–64; 2005–2008 CPS; N = 6,210	Difference-in-differences regression models	Coverage over the prior calendar year; Type of coverage: ESI coverage and public/other coverage	Insurance coverage increased (up 6.6 percentage points in 2007), with increases in ESI and public/other coverage	Post-reform (2007) time period is short

APPENDIX EXHIBIT A1: (CONTINUED)

STUDY	POPULATION EXAMINED / DATA SOURCE / SAMPLE SIZE FOR MASSACHUSETTS	ANALYTIC FRAMEWORK	COVERAGE MEASURES EXAMINED	SUMMARY OF KEY FINDINGS[a]	COMMENTS / ISSUES
			ADMINISTRATIVE DATA		
Massachusetts Division of Health Care Finance and Policy (2010) *Health Care in Massachusetts: Key Indicators*	All residents; 2006–2010 health plan enrollment data; N = not applicable	Trends over time	Coverage at a point in time; Type of coverage: private group, individual purchase, MassHealth, and Commonwealth Care (excludes CHAMPUS/Tricare and some federal employees)	Insurance coverage in the state increased by 8 percent (410,000 persons) between June 2006 and March 2010, with gains in both public and private group coverage	Based on plan enrollment data; Trends over time may also capture the effects of the recession and other factors

[a] Findings are based on regression-adjusted estimates unless otherwise noted.

[b] The research based on the MHRS is updated each year as another round of data becomes available.

[c] Point estimate not available.

APPENDIX EXHIBIT A2: SUMMARY OF STUDIES ADDRESSING THE IMPACTS OF HEALTH REFORM ON ACCESS TO AND USE OF CARE FOR NONELDERLY ADULTS IN MASSACHUSETTS

STUDY	POPULATION EXAMINED / DATA SOURCE / SAMPLE SIZE FOR MASSACHUSETTS	ANALYTIC FRAMEWORK	ACCESS MEASURES EXAMINED	SUMMARY OF KEY FINDINGS[a]	COMMENTS / ISSUES
MASSACHUSETTS HEALTH REFORM SURVEY (MHRS)					
Long (2008) in *Health Affairs*[b]	Adults 18–64; Fall 2006–Fall 2007 MHRS; N for MA = 5,944	Pre-post regression models	Has a usual source of care; Outpatient visits over the past year: general doctor, preventive care, specialist, dental; Emergency department visits over the past year; Prescription drug use over the past year; Unmet need for care over the past year	Increase in share with usual source of care; Increases in some types of outpatient visits; No change in share taking prescription drugs or emergency department use; Reductions in unmet need for care	Pre-reform (2006) and post-reform (2007) time periods are short, particularly for measures of access to care over the prior year
Long and Masi (2009) in *Health Affairs*[b]	Adults 18–64; Fall 2006–Fall 2009 MHRS; N for MA = 9,985	Pre-post regression models	Has a usual source of care; Outpatient uses over the past year; Emergency department visits over the past year	Increase in share with usual source of care; Increases in some types of outpatient visits and share taking prescription drugs; No change in emergency department use; Some reductions in unmet need for care	Pre-reform (2006) and post-reform (2007-2008) time periods are short, particularly for measures of access to care over the prior year; Pre-post comparisons may be confounded by the recession and other factors
Long and Stockley (2010) in *Health Affairs*[b]	Adults 18–64; Fall 2006–Fall 2009 MHRS; N for MA = 13,150	Pre-post regression models	Has a usual source of care; Outpatient visits over the past year: general doctor, preventive care, specialist, dental; Inpatient visits over the past year; Emergency department visits over the past year; Prescription drug use over the past year; Unmet need for care over the past year, by type (doctor; specialist; medical tests, treatment, or follow-up care; preventive care screening; prescription drugs; and dental care)	Increase in share with usual source of care, outpatient visits, and taking prescription drugs; No change in inpatient use or emergency department use; Reductions in unmet need for all types of care	Pre-reform (2006) and post-reform (2007-2009) time periods are short, particularly for measures of access to care over the prior year; Pre-post comparisons may be confounded by the recession and other factors

APPENDIX EXHIBIT A2: (CONTINUED)

STUDY	POPULATION EXAMINED / DATA SOURCE / SAMPLE SIZE FOR MASSACHUSETTS	ANALYTIC FRAMEWORK	ACCESS MEASURES EXAMINED	SUMMARY OF KEY FINDINGS[a]	COMMENTS / ISSUES
BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM (BRFSS)					
Clark et al. (2011) in *Health Affairs*	Adults 18–64; 1996–2008 BRFSS; N = 88,667	Pre-post regression models	Whether had mammogram in past 2 years (women 40–64); Whether had Pap smear in past 3 years (women 18–64); Whether had colonoscopy in past 5 years (persons 50–64); Whether had cholesterol screening in past 5 years (persons 25–64)	No change in receipt of mammogram or Pap smear; Increase in receipt of colonoscopy; Increase in cholesterol screening for women but not men	Post-reform (2007–2008) time period is short, particularly for measures of access to care over prior 2-5 years; Pre-post comparisons may be confounded by the recession and other factors
Tinsley, Andrews, Hawk, and Cohen (2010) in *Morbidity and Mortality Weekly Report*	Adults 18–64; 2005–2008 BRFSS; N = 34,232	Pre-post models	Has a personal health care provider; Had a doctor visit for a routine checkup in the past year	Increase in share with a personal health care provider; Increase in share with a routine checkup	Post-reform (2007–2008) time period is short, particularly for measures of access over the prior year; Pre-post comparisons may be confounded by the recession and other factors
Zhu et al. (2010) in *Journal of General Internal Medicine*	Adults 18–64; 2006–2008 BRFSS; N = 36,505	Difference-in differences regression models	Has a personal health care provider	No change in share with a personal health care provider	Post-reform (2007–2008) time period is short
NATIONAL HEALTH INTERVIEW SURVEY (NHIS)					
Long and Stockley (2011) in *Health Services Research*	Adults 19–64; 2003–2008 NHIS; N = 1,130	Difference-in differences regression models	Has a usual source of care; Outpatient uses over the past year; Emergency department visits over the past year; Delayed getting needed care over the past year because could not get an appointment or could not go when open	No changes for most measures, with the exception of increases in delayed getting needed care because could not get an appointment and in likelihood of a visit to a nurse practitioner, physician assistant, or midwife	Post-reform (2007–2008) time period is short, particularly for measures of access to care over the prior year; Small sample sizes

[a] Findings are based on regression-adjusted estimates unless otherwise noted.

[b] The research based on the MHRS is updated each year as another round of data becomes available.

APPENDIX EXHIBIT A3: SUMMARY OF STUDIES ADDRESSING THE IMPACTS OF HEALTH REFORM ON THE AFFORDABILITY OF CARE FOR NONELDERLY ADULTS IN MASSACHUSETTS

STUDY	POPULATION EXAMINED / DATA SOURCE / SAMPLE SIZE FOR MASSACHUSETTS	ANALYTIC FRAMEWORK	AFFORDABILITY MEASURES EXAMINED	SUMMARY OF KEY FINDINGS[a]	COMMENTS / ISSUES
MASSACHUSETTS HEALTH REFORM SURVEY (MHRS)					
Long (2008) in *Health Affairs*[b]	Adults 18–64; Fall 2006–Fall 2007 MHRS; N for MA = 5,944	Pre-post regression models	Out-of-pocket (OOP) health care spending during past 12 months; Problems paying medical bills; Medical debt; Unmet need for care due to costs, by type (doctor; specialist; medical tests, treatment, or follow-up care; preventive care screening; prescription drugs; and dental care)	Reductions in OOP spending, problems paying medical bills and medical debt, and unmet need due to costs	Pre-reform (2006) and post-reform (2007) time periods are short, particularly for measures of affordability of care over the prior year
Long and Masi (2009) in *Health Affairs*[b]	Adults 18–64; Fall 2006–Fall 2009 MHRS; N for MA = 9,985	Pre-post regression models	OOP health care spending during past 12 months; Problems paying medical bills; Medical debt; Unmet need for care due to costs, by type (doctor; specialist; medical tests, treatment, or follow-up care; preventive care screening;, prescription drugs; and dental care)	Reductions in OOP spending and unmet need due to costs; No change in problems paying medical bills and medical debt	Pre-reform (2006) and post-reform (2007–2008) time periods are short, particularly for measures of affordability of care over the prior year; Pre-post comparisons may be confounded by the recession and other factors
Long and Stockley (2010) in *Health Affairs*[b]	Adults 18–64; Fall 2006–Fall 2009 MHRS; N for MA = 13,150	Pre-post regression models	OOP health care spending during past 12 months; Problems paying medical bills; Medical debt; Unmet need for care due to costs, by type (doctor; specialist; medical tests, treatment, or follow-up care; preventive care screening; prescription drugs; and dental care)	Reductions in OOP spending and unmet need due to costs; No change in problems paying medical bills and medical debt	Pre-reform (2006) and post-reform (2007–2009) time periods are short, particularly for measures of affordability of care over the prior year; Pre-post comparisons may be confounded by the recession and other factors

APPENDIX EXHIBIT A3: (CONTINUED)

STUDY	POPULATION EXAMINED / DATA SOURCE / SAMPLE SIZE FOR MASSACHUSETTS	ANALYTIC FRAMEWORK	AFFORDABILITY MEASURES EXAMINED	SUMMARY OF KEY FINDINGS[a]	COMMENTS / ISSUES
BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM (BRFSS)					
Clark et al. (2011) in *Health Affairs*	Adults 18–64; 1996-2008 BRFSS; N = 88,667	Pre-post regression models	Unmet need due to costs	Reduction in unmet need due to costs	Post-reform time period (2007–2008) is short, particularly for measures of affordability of care over the prior year; Pre-post comparisons may be confounded by the recession and other factors
Zhu et al. (2010) in *Journal of General Internal Medicine*	Adults 18–64; 2006-2008 BRFSS; N = 36,505	Difference-in-differences regression models	Unmet need due to costs	Reduction in unmet need due to costs	Post-reform time period (2007–2008) is short
NATIONAL HEALTH INTERVIEW SURVEY (NHIS)					
Long and Stockley (2011) in *Health Services Research*	Adults 19–64; 2003-2008 NHIS; N = 1,130	Difference-in-differences regression models	Did not get needed care over the past year because of costs; Delayed getting needed care over the past year because of costs	Some evidence of reductions in unmet need for care and delays in getting care because of costs	Post-reform time period (2007–2008) is short, particularly for measures of affordability of care over the prior year; Small sample sizes

[a] Findings are based on regression-adjusted estimates unless otherwise noted.

[b] The research based on the MHRS is updated each year as another round of data becomes available.

APPENDIX B

SUPPLEMENTAL EXHIBITS

APPENDIX EXHIBIT II.1: Characteristics of Massachusetts Adults 19 to 64 in Fall 2010 Based on the Landline Sample Only and the Combined Landline and Cell Phone Samples Of the 2010 Massachusetts Health Reform Survey

APPENDIX EXHIBIT III.1: Unadjusted Trends in Health Insurance Coverage for Adults 19 to 64 in Massachusetts, Fall 2006 to Fall 2010

APPENDIX EXHIBIT III.2: Unadjusted Trends in Health Care Access and Use for Adults 19 to 64 in Massachusetts, Fall 2006 to Fall 2010

APPENDIX EXHIBIT III.3: Unadjusted Trends in Delayed or Unmet Need for Health Care for Adults 19 to 64 in Massachusetts, Fall 2006 to Fall 2010

APPENDIX EXHIBIT III.4: Unadjusted Trends in Health Care Spending, Medical Bills, Medical Debt, and Unmet Need for Care Because of Costs for Adults 19 to 64 in Massachusetts, Fall 2006 to Fall 2010

APPENDIX EXHIBIT III.5: Unadjusted Trends in Health Insurance Coverage for Lower-income Adults 19 to 64 in Massachusetts, Fall 2006 to Fall 2010

APPENDIX EXHIBIT III.6: Unadjusted Trends in Health Care Access and Use for Lower-income Adults 19 to 64 in Massachusetts, Fall 2006 to Fall 2010

APPENDIX EXHIBIT III.7: Unadjusted Trends in Delayed or Unmet Need for Health Care for Lower-income Adults 19 to 64 in Massachusetts, Fall 2006 to Fall 2010

APPENDIX EXHIBIT III.8: Unadjusted Trends in Health Care Spending, Problems with Medical Bills, Medical Debt, and Unmet Need for Care Because of Costs for Lower-income Adults 19 to 64 in Massachusetts, Fall 2006 to Fall 2010

APPENDIX EXHIBIT VIII.1: Characteristics of Insured and Uninsured Massachusetts Adults 19 to 64, Based on Coverage at the Time of the Survey, Fall 2010

APPENDIX EXHIBIT II.1: CHARACTERISTICS OF MASSACHUSETTS ADULTS 19 TO 64 BASED ON THE LANDLINE SAMPLE ONLY AND THE COMBINED LANDLINE AND CELL PHONE SAMPLES OF THE 2010 MASSACHUSETTS HEALTH REFORM SURVEY

	LANDLINE SAMPLE	COMBINED LANDLINE AND CELL PHONE SAMPLES
PERCENT		
AGE		
19 to 25 years	15.3	16.7
26 to 34 years	17.5	17.3
35 to 49 years	35.9	35.2
50 to 64 years	31.3	30.7
RACE/ETHNICITY		
White, non-Hispanic	78.8	79.2
Non-white, non-Hispanic	12.9	12.6
Hispanic	8.2	8.1
FEMALE	51.4	51.0
U.S. CITIZEN	93.8	92.9
MARITAL STATUS		
Married	56.6	52.8
Living with partner	5.8	8.5
Divorced, separated, widowed	11.0	12.8
Never married	26.6	26.0
PARENT OF ONE OR MORE CHILDREN UNDER 18	41.7	39.0
EDUCATION		
Less than high school	5.2	5.4
High school graduate (includes some college)	49.7	48.4
College graduate or higher	45.1	46.2
WORK STATUS		
Full-time	51.5	52.2
Part-time	18.9	19.1
Not working	29.6	28.7
SELF-EMPLOYED	8.2	9.7
WORKS AT A FIRM WITH FEWER THAN 51 EMPLOYEES	14.2	15.3

(continued)

APPENDIX EXHIBIT II.1 (CONTINUED)

	LANDLINE SAMPLE	COMBINED LANDLINE AND CELL PHONE SAMPLES
PERCENT		
SELF-REPORTED HEALTH STATUS		
Very good or excellent	63.6	64.9
Good	23.4	22.6
Fair or poor	13.0	12.5
ANY CHRONIC CONDITION[a]	51.2	50.7
Hypertension	21.1	20.3
Heart disease	4.3	4.4
Diabetes	7.6	6.9
Asthma	14.0	14.7
ACTIVITIES ARE LIMITED BY HEALTH PROBLEM	18.1	17.8
FAMILY INCOME RELATIVE TO THE FEDERAL POVERTY LEVEL (FPL)		
Less than 100% of FPL	14.6	14.7
100-299% of FPL	27.5	29.2
300-499% of FPL	22.2	22.0
500% of FPL or more	35.8	34.1
REGION		
Boston	11.6	11.5
MetroWest	31.9	32.8
Northeast	11.3	11.5
Central	12.3	12.2
West	12.9	12.6
Southeast	19.9	19.4

Source: 2006–2010 Massachusetts Health Reform Surveys (N=2,316 landline; N=2,934 combined landline and cell phone).

[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.

APPENDIX EXHIBIT III.1: UNADJUSTED TRENDS IN HEALTH INSURANCE COVERAGE FOR ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2010

	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010
PERCENT					
Current insurance coverage					
Any insurance coverage	86.9	92.7 **	96.0 ** ^^	95.2 **	94.2 **
Employer-sponsored insurance (ESI) coverage	66.7	69.5 *	71.6 **	68.4 ^	68.0
In own name	42.5	41.9	42.1	41.3	41.4
In family member's name	24.1	27.6	29.5 **	27.0 *	26.6
Public or other coverage	20.2	23.2 *	24.4 **	26.8 **	26.2 **
Uninsured	13.1	7.3 **	4.0 ** ^^	4.8 **	5.8 **
Uninsurance over the past year					
Always uninsured	8.5	4.8 **	1.8 ** ^^	2.6 ** ^	2.9 **
Ever uninsured	19.0	14.9 **	10.1 ** ^^	9.7 **	12.1 **
Never uninsured	81.0	85.1 **	89.9 ** ^^	90.3 **	87.9 **
PERCENTAGE POINT CHANGE FROM FALL 2006					
Current insurance coverage					
Any insurance coverage		5.9 **	9.2 ** ^^	8.3 **	7.3 **
ESI coverage		2.9 *	5.0 **	1.7 ^	1.4
In own name		-0.5	-0.4	-1.2	-1.1
In family member's name		3.4	5.4 **	2.9 *	2.5
Public or other coverage		3.0 *	4.2 **	6.6 **	5.9 **
Uninsured		-5.9 **	-9.2 ** ^^	-8.3 **	-7.3 **
Uninsurance over the past year					
Always uninsured		-3.7 **	-6.8 ** ^^	-6.0 ** ^	-5.6 **
Ever uninsured		-4.1 **	-8.9 ** ^^	-9.3 **	-6.9 **
Never uninsured		4.1 **	8.9 ** ^^	9.3 **	6.9 **

Source: 2006–2010 Massachusetts Health Reform Surveys (N=15,544).
Note: These are simple (unadjusted) estimates. The estimates of percentage point changes reported in the bottom panel may not equal the difference between the values in the top panel due to rounding.
*(**) Value for year is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) Value for year is significantly different from the value in the previous year at the .05 (.01) level, two-tailed test.

APPENDIX EXHIBIT III.2: UNADJUSTED TRENDS IN HEALTH CARE ACCESS AND USE FOR ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2010

	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010
PERCENT					
Has a usual source of care (excluding the emergency department [ED])	86.2	88.3	92.2 ** ^^	89.8 ** ^	90.4 **
Usual source of care is doctor's office or clinic	66.4	69.3	72.9 ** ^	72.9 **	72.0 **
Any general doctor visit in past 12 months	80.1	80.9	85.0 ** ^^	86.1 **	81.7 ^^
Visit for preventive care	70.2	72.8	77.1 ** ^^	77.5 **	75.8 **
Multiple doctor visits	65.6	63.6	69.9 * ^^	71.0 **	69.7 *
Any specialist visit in past 12 months	50.7	48.6	53.8 ^^	53.3	53.7
Any dental care visit in past 12 months	68.0	71.5 *	76.2 ** ^^	74.5 **	72.9 **
Any hospital stay in the past 12 months (excluding for birth)	11.3	9.8	10.9	10.1	9.4
Took any prescription drugs in past 12 months	55.3	54.5	60.2 ** ^^	58.4	57.1
Any ED visits in past 12 months	34.3	34.2	32.9	33.8	30.4 * ^
Three or more ED visits	8.9	8.7	8.1	8.9	7.1
Most recent ED visit was for non-emergency condition[a]	16.0	15.4	14.3	14.7	12.2 ** ^
Among those who used care in the past 12 months, share rating quality of care as very good or excellent	63.3	71.1 **	69.8 **	68.6 **	68.4 **
PERCENTAGE POINT CHANGE FROM FALL 2006					
Has a usual source of care (excluding the ED)		2.1	6.0 ** ^^	3.6 ** ^	4.1 **
Usual source of care is doctor's office or clinic		2.8	6.4 ** ^	6.5 **	5.5 **
Any general doctor visit in past 12 months		0.8	4.9 ** ^^	6.1 **	1.6 ^^
Visit for preventive care		2.6	7.0 ** ^^	7.4 **	5.6 **
Multiple doctor visits		-2.0	4.3 * ^^	5.3 **	4.1 *
Any specialist visit in past 12 months		-2.1	3.1 ^^	2.6	3.0
Any dental care visit in past 12 months		3.5 *	8.2 ** ^^	6.5 **	4.9 **
Any hospital stay in the past 12 months (excluding for birth)		-1.5	-0.4	-1.3	-1.9
Took any prescription drugs in past 12 months		-0.8	4.9 ** ^^	3.1	1.8
Any ED visits in past 12 months		-0.1	-1.5	-0.6	-4.0 * ^
Three or more ED visits		-0.2	-0.9	-0.1	-1.8
Most recent ED visit was for non-emergency condition[a]		-0.6	-1.6	-1.2	-3.7 ** ^
Among those who used care in the past 12 months, share rating quality of care as very good or excellent		7.9 **	6.5 **	5.3 **	5.1 **

Source: 2006–2010 Massachusetts Health Reform Surveys (N=15,544).

Note: These are simple (unadjusted) estimates. The estimates of percentage point changes reported in the bottom panel may not equal the difference between the values in the top panel due to rounding.

*(**) Value for year is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.

^(^^) Value for year is significantly different from the value in the previous year 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.

APPENDIX EXHIBIT III.3: UNADJUSTED TRENDS IN DELAYED OR UNMET NEED FOR HEALTH CARE FOR ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2010

	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010
PERCENT					
Delayed getting or did not get needed care in past 12 months	44.2	38.6 **	39.1 **	37.7 **	38.3 **
Doctor care	16.8	12.9 **	12.6 **	12.8 **	13.3 *
Specialist care	14.9	10.0 **	12.7 ^	12.1 *	12.3 *
Medical tests, treatment, or follow-up care	17.4	12.8 **	14.6 *	13.3 **	13.8 **
Preventive care screening	11.7	9.6 *	10.2	9.7 *	8.5 **
Prescription drugs	14.0	10.0 **	12.3 ^	11.4 *	12.0
Dental care	26.1	21.6 **	22.2 *	21.5 *	21.8 **
Did not get needed care in past 12 months	25.9	20.7 **	21.8 *	19.6 **	22.8 * ^
Doctor care	8.2	5.6 **	6.5	5.4 **	5.8 *
Specialist care	7.1	3.8 **	7.1 ^^	4.9 * ^^	5.6
Medical tests, treatment, or follow-up care	9.4	6.0 **	7.6 * ^	5.8 ** ^	7.0 **
Preventive care screening	7.1	5.6	5.5 *	4.9 **	4.4 **
Prescription drugs	8.2	5.5 **	6.4	5.8 **	6.5
Dental care	12.8	9.2 **	11.3	9.2 **	11.4
PERCENTAGE POINT CHANGE FROM FALL 2006					
Delayed getting or did not get needed care in past 12 months		-5.6 **	-5.2 **	-6.5 **	-5.9 **
Doctor care		-3.9 **	-4.2 **	-4.0 **	-3.5 *
Specialist care		-4.9 **	-2.1 ^	-2.8 *	-2.5 *
Medical tests, treatment, or follow-up care		-4.5 **	-2.8 *	-4.0 **	-3.5 **
Preventive care screening		-2.0 *	-1.5	-2.0 *	-3.2 **
Prescription drugs		-4.0 **	-1.7 ^	-2.6 *	-2.0
Dental care		-4.5 **	-3.9 *	-4.6 *	-4.4 **
Did not get needed care in past 12 months		-5.1 **	-4.0 *	-6.2 **	-3.1 * ^
Doctor care		-2.6 **	-1.7	-2.8 **	-2.3 *
Specialist care		-3.3 **	0.0 ^^	-2.2 * ^^	-1.5
Medical tests, treatment, or follow-up care		-3.5 **	-1.8 * ^	-3.7 ** ^	-2.5 **
Preventive care screening		-1.5	-1.6 *	-2.1 **	-2.6 **
Prescription drugs		-2.7 **	-1.8	-2.4 **	-1.6
Dental care		-3.5 **	-1.5	-3.6 **	-1.3

Source: 2006–2010 Massachusetts Health Reform Surveys (N=15,544).
Note: These are simple (unadjusted) estimates. The estimates of percentage point changes reported in the bottom panel may not equal the difference between the values in the top panel due to rounding.
*(**) Value for year is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) Value for year is significantly different from the value in the previous year at the .05 (.01) level, two-tailed test.

APPENDIX EXHIBIT III.4: UNADJUSTED TRENDS IN HEALTH CARE SPENDING, MEDICAL BILLS, MEDICAL DEBT, AND UNMET NEED FOR CARE BECAUSE OF COSTS FOR ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2010

	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010
PERCENT					
Out-of-pocket (OOP) health care spending over the past 12 months relative to family income for those less than 500% of the federal poverty level (FPL)[a]					
At 5% or more of family income	22.3	16.4 **	19.3 ^	17.5 *	17.8 *
At 10% or more of family income	9.0	5.1 **	7.7 ^^	6.0 **	6.1 **
Had problems paying medical bills in past 12 months	20.7	16.6 **	17.2 **	19.2	17.5 *
Have medical bills that are paying off over time	21.0	18.3 *	19.8	20.3	20.2
Had problems paying other bills in past 12 months	25.0	23.2	23.7	25.6	25.2
Did not get needed care because of costs in the past 12 months	17.1	11.2 **	11.4 **	11.8 **	13.6 **
Doctor care	5.8	2.9 **	2.5 **	2.7 **	3.2 **
Specialist care	4.9	2.2 **	3.2 *	2.5 **	2.7 **
Medical tests, treatment, or follow-up care	6.2	2.4 **	3.4 ** ^	2.7 **	3.7 **
Preventive care screening	3.5	2.0 **	2.2 **	2.3 **	2.3 *
Prescription drugs	5.6	3.5 **	3.6 **	3.6 **	4.4
Dental care	10.3	6.5 **	7.6 *	6.9 **	7.8 *
PERCENTAGE POINT CHANGE FROM FALL 2006					
OOP health care spending over the past 12 months relative to family income for those less than 500% of FPL[a]					
At 5% or more of family income		-5.9 **	-3.0 ^	-4.8 *	-4.5 *
At 10% or more of family income		-3.9 **	-1.4 ^^	-3.0 **	-2.9 **
Had problems paying medical bills in past 12 months		-4.1 **	-3.4 **	-1.5	-3.1 *
Have medical bills that are paying off over time		-2.7 *	-1.2	-0.6	-0.8
Had problems paying other bills in past 12 months		-1.8	-1.3	0.6	0.2
Did not get needed care because of costs in the past 12 months		-5.8 **	-5.7 **	-5.3 **	-3.5 **
Doctor care		-2.9 **	-3.3 **	-3.1 **	-2.6 **
Specialist care		-2.8 **	-1.8 *	-2.5 **	-2.2 **
Medical tests, treatment, or follow-up care		-3.8 **	-2.8 ** ^	-3.5 **	-2.6 **
Preventive care screening		-1.5 **	-1.4 **	-1.2 **	-1.2 *
Prescription drugs		-2.1 **	-2.0 **	-2.0 **	-1.2
Dental care		-3.8 **	-2.7 *	-3.4 **	-2.4 *

Source: 2006–2010 Massachusetts Health Reform Surveys (N=15,544).

Note: These are simple (unadjusted) estimates. The estimates of percentage point changes reported in the bottom panel may not equal the difference between the values in the top panel due to rounding.

*(**) Value for year is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.

^(^^) Value for year is significantly different from the value in the previous year 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 percent of FPL.

APPENDIX EXHIBIT III.5: UNADJUSTED TRENDS IN HEALTH INSURANCE COVERAGE FOR LOWER-INCOME ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2010

	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010
PERCENT					
Current insurance coverage					
Any insurance coverage	75.8	86.6 **	92.4 ** ^^	90.8 **	90.1 **
Employer-sponsored insurance (ESI) coverage	37.3	41.6	43.3 *	39.2	41.9 *
In own name	22.2	25.2	22.2	21.6	25.2
In family member's name	15.2	16.4	21.0 *	17.6	16.7
Public or other coverage	38.4	45.1 *	49.1 **	51.6 **	48.2 **
Uninsured	24.2	13.4 **	7.6 ** ^^	9.2 **	9.9 **
Uninsurance over the past year					
Always uninsured	15.7	9.0 **	3.5 ** ^^	5.2 ** ^	4.9 **
Ever uninsured	35.6	26.1 **	18.2 ** ^^	17.2 **	20.2 **
Never uninsured	64.4	73.9 **	81.8 ** ^^	82.8 **	79.8 **
PERCENTAGE POINT CHANGE FROM FALL 2006					
Current insurance coverage					
Any insurance coverage		10.9 **	16.6 ** ^^	15.0 **	14.3 **
ESI coverage		4.2	5.9 *	1.9	4.6 *
In own name		3.0	0.1	-0.6	3.0
In family member's name		1.2	5.8 *	2.4	1.5
Public or other coverage		6.6 *	10.7 **	13.2 **	9.8 **
Uninsured		-10.9 **	-16.6 ** ^^	-15.0 **	-14.3 **
Uninsurance over the past year					
Always uninsured		-6.6 **	-12.1 **	-10.5 **	-10.8 **
Ever uninsured		-9.5 **	-17.5 **	-18.5 **	-15.5 **
Never uninsured		9.5 **	17.5 **	18.5 **	15.5 **

Source: 2006–2010 Massachusetts Health Reform Surveys (N=7,759).
Note: These are simple (unadjusted) estimates. The estimates of percentage point changes reported in the bottom panel may not equal the difference between the values in the top panel due to rounding.
*(**) Value for year is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) Value for year is significantly different from the value in the previous year at the .05 (.01) level, two-tailed test.

APPENDIX EXHIBIT III.6: UNADJUSTED TRENDS IN HEALTH CARE ACCESS AND USE FOR LOWER-INCOME ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2010

	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010
PERCENT					
Has a usual source of care (excluding the emergency department [ED])	78.8	82.0	87.3 **^^	84.3 *	84.2 *
Usual source of care is doctor's office or clinic	49.7	55.4	58.2 **	57.3 **	58.0 **
Any general doctor visit in past 12 months	75.4	74.9	80.3 ^	83.8 **	77.9 ^
Visit for preventive care	64.7	68.4	72.6 **	74.3 **	72.1 **
Multiple doctor visits	62.0	58.3	67.0 ^^	69.9 **	68.5 *
Any specialist visit in past 12 months	46.4	42.5	49.7 ^	49.9	51.7
Any dental care visit in past 12 months	48.8	56.7 **	63.4 ** ^	60.9 **	60.5 **
Any hospital stay in the past 12 months (excluding for birth)	14.9	13.4	14.9	14.9	12.4
Took any prescription drugs in past 12 months	55.6	54.4	60.7 * ^	60.8 *	55.9
Any ED visits in past 12 months	46.2	48.1	46.4	46.4	42.4
Three or more ED visits	16.0	16.6	15.6	14.8	12.6
Most recent ED visit was for non-emergency condition[a]	23.4	24.2	22.0	22.1	18.8 *
Among those who used care in the past 12 months, share rating quality of care as very good or excellent	52.2	60.4 **	57.6	62.4 **	58.2 *
PERCENTAGE POINT CHANGE FROM FALL 2006					
Has a usual source of care (excluding the ED)		3.2	8.5 **	5.4 *	5.4 *
Usual source of care is doctor's office or clinic		5.7	8.5 **	7.6 **	8.3 **
Any general doctor visit in past 12 months		-0.5	4.9	8.4 **	2.5 ^
Visit for preventive care		3.7	7.9 **	9.5 **	7.4 **
Multiple doctor visits		-3.7	5.0	7.9 **	6.5 *
Any specialist visit in past 12 months		-3.9	3.3	3.5	5.2
Any dental care visit in past 12 months		7.9 **	14.6 **	12.1 **	11.7 **
Any hospital stay in the past 12 months (excluding for birth)		-1.5	0.0	-0.0	-2.5
Took any prescription drugs in past 12 months		-1.1	5.2 *	5.2 *	0.3
Any ED visits in past 12 months		1.9	0.2	0.2	-3.8
Three or more ED visits		0.7	-0.4	-1.2	-3.4
Most recent ED visit was for non-emergency condition[a]		0.7	-1.4	-1.4	-4.6 *
Among those who used care in the past 12 months, share rating quality of care as very good or excellent		8.2 **	5.4	10.2 **	6.0 *

Source: 2006–2010 Massachusetts Health Reform Surveys (N=7,759).

Note: These are simple (unadjusted) estimates. The estimates of percentage point changes reported in the bottom panel may not equal the difference between the values in the top panel due to rounding.

*(**) Value for year is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.

^(^^) Value for year is significantly different from the value in the previous year 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.

APPENDIX EXHIBIT III.7: UNADJUSTED TRENDS IN DELAYED OR UNMET NEED FOR HEALTH CARE FOR LOWER-INCOME ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2010

	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010
PERCENT					
Delayed getting or did not get needed care in past 12 months	54.0	47.1	49.2	43.5 ** ^	46.6 *
Doctor care	24.5	17.9 **	18.6 *	17.0 **	19.0 *
Specialist care	20.6	12.7 **	18.6 ^^	14.3 ** ^	16.2 * ^^
Medical tests, treatment, or follow-up care	22.6	17.7 *	20.5	14.2 ** ^^	17.2 *
Preventive care screening	13.5	10.7 *	14.0 ^	8.5 ** ^^	9.8 *
Prescription drugs	21.0	15.3 **	18.4	14.4 ** ^	16.6 *
Dental care	36.0	28.6 *	30.4 *	27.0 **	28.7 **
Did not get needed care in past 12 months	35.9	29.4 *	32.8	26.8 ** ^	31.6
Doctor care	13.9	9.6 *	11.9	7.9 ** ^	9.3 **
Specialist care	11.2	6.7 **	12.6 ^^	6.5 ** ^^	8.5
Medical tests, treatment, or follow-up care	14.3	9.4 **	13.2 ^	6.9 ** ^^	9.6 **
Preventive care screening	8.5	6.4	9.4 ^	5.9 * ^^	5.2 **
Prescription drugs	12.7	9.1 *	10.4	8.0 **	9.2 *
Dental care	21.1	13.9 **	17.8	13.5 ** ^	17.7
PERCENTAGE POINT CHANGE FROM FALL 2006					
Delayed getting or did not get needed care in past 12 months		-6.9	-4.8	-10.5 ** ^	-7.3 *
Doctor care		-6.7 **	-5.9 *	-7.5 **	-5.5 *
Specialist care		-8.0 **	-2.1 ^^	-6.3 ** ^	-4.4 * ^^
Medical tests, treatment, or follow-up care		-4.9 *	-2.1	-8.5 ** ^^	-5.4 *
Preventive care screening		-2.7 *	0.6 ^	-4.9 ** ^^	-3.7 *
Prescription drugs		-5.7 **	-2.6	-6.5 **^	-4.4 *
Dental care		-7.4 *	-5.6 *	-9.0 **	-7.3 **
Did not get needed care in past 12 months		-6.5 *	-3.1	-9.1 ** ^	-4.3
Doctor care		-4.2 *	-1.9	-5.9 ** ^	-4.5 **
Specialist care		-4.6 **	1.4 ^^	-4.7 ** ^^	-2.7
Medical tests, treatment, or follow-up care		-4.9 **	-1.2 ^	-7.4 ** ^^	-4.8 **
Preventive care screening		-2.0	0.9 ^	-2.6 * ^^	-3.3 **
Prescription drugs		-3.6 *	-2.2	-4.6 **	-3.4 *
Dental care		-7.2 **	-3.3	-7.6 ** ^	-3.4

Source: 2006–2010 Massachusetts Health Reform Surveys (N=7,759).
Note: These are simple (unadjusted) estimates. The estimates of percentage point changes reported in the bottom panel may not equal the difference between the values in the top panel due to rounding.
*(**) Value for year is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) Value for year is significantly different from the value in the previous year at the .05 (.01) level, two-tailed test.

APPENDIX EXHIBIT III.8: UNADJUSTED TRENDS IN HEALTH CARE SPENDING, PROBLEMS WITH MEDICAL BILLS, MEDICAL DEBT, AND UNMET NEED FOR CARE BECAUSE OF COSTS FOR LOWER-INCOME ADULTS 19 TO 64 IN MASSACHUSETTS, FALL 2006 TO FALL 2010

	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010
PERCENT					
Out-of-pocket (OOP) health care spending over the past 12 months relative to family income for those less than 500% of the federal poverty level (FPL)[a]					
At 5% or more of family income	26.5	17.9 **	21.3 *	18.4 **	20.0 **
At 10% or more of family income	12.9	7.0 **	10.6 ^	7.4 ** ^	7.5 **
Had problems paying medical bills in past 12 months	32.9	24.6 **	27.3 *	26.3 **	26.1 **
Have medical bills that are paying off over time	27.3	23.7	25.9	23.0	23.2 *
Had problems paying other bills in past 12 months	36.7	36.0	38.7	38.9	38.1
Did not get needed care because of costs in the past 12 months	27.5	17.5 **	17.8 **	15.2 **	19.4 ** ^
Doctor care	11.4	5.1 **	4.8 **	3.9 **	4.7 **
Specialist care	8.5	3.8 **	6.0 ^	2.7 ** ^^	4.0 **
Medical tests, treatment, or follow-up care	11.2	4.6 **	6.6 **	2.9 ** ^^	5.1 ** ^^
Preventive care screening	5.9	2.9 **	4.3	3.0 **	3.1 **
Prescription drugs	10.1	6.4 **	5.4 **	5.2 **	6.2 **
Dental care	17.6	9.6 **	11.5 **	8.9 **	11.5 **
PERCENTAGE POINT CHANGE FROM FALL 2006					
OOP spending over the past 12 months relative to family income for those less than 500% of FPL[a]					
At 5% or more of family income		-8.6 **	-5.1 *	-8.1 **	-6.5 **
At 10% or more of family income		-5.9 **	-2.3 ^	-5.6 ** ^	-5.5 **
Had problems paying medical bills in past 12 months		-8.3 **	-5.6 *	-6.7 **	-6.9 **
Have medical bills that are paying off over time		-3.6	-1.4	-4.3	-4.1 *
Had problems paying other bills in past 12 months		-0.8	1.9	2.1	1.4
Did not get needed care because of costs in the past 12 months		-10.0 **	-9.7 **	-12.3 **	-8.1 ** ^
Doctor care		-6.3 **	-6.6 **	-7.5 **	-6.8 **
Specialist care		-4.8 **	-2.5 ^	-5.9 ** ^^	-4.6 **
Medical tests, treatment or follow-up care		-6.6 **	-4.6 **	-8.3 ** ^^	-6.1 ** ^^
Preventive care screening		-2.9 **	-1.6	-2.9 **	-2.8 **
Prescription drugs		-3.7 **	-4.8 **	-4.9 **	-3.9 **
Dental care		-7.9 **	-6.1 **	-8.7 **	-6.1 **

Source: 2006–2010 Massachusetts Health Reform Surveys (N=7,759).
Note: These are simple (unadjusted) estimates. The estimates of percentage point changes reported in the bottom panel may not equal the difference between the values in the top panel due to rounding.
*(**) Value for year is significantly different from the value in 2006 at the .05 (.01) level, two-tailed test.
^(^^) Value for year is significantly different from the value in the previous year 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 percent of FPL.

APPENDIX EXHIBIT VIII.1: CHARACTERISTICS OF INSURED AND UNINUSURED MASSACHUSETTS ADULTS 19 TO 64, BASED ON COVERAGE AT THE TIME OF THE SURVEY, FALL 2010

	INSURED AT THE TIME OF THE SURVEY	UNINSURED AT THE TIME OF THE SURVEY	DIFFERENCE
PERCENT			
AGE			
19 to 25 years	15.7	32.9	-17.2 **
26 to 34 years	17.4	15.7	1.7
35 to 49 years	35.6	29.0	6.6
50 to 64 years	31.2	22.4	8.9 *
RACE/ETHNICITY			
White, non-Hispanic	79.5	74.3	5.3
Non-white, non-Hispanic	12.5	15.4	-2.9
Hispanic	8.0	10.4	-2.4
FEMALE	52.4	28.3	24.1 **
U.S. CITIZEN	93.3	86.2	7.1 *
MARITAL STATUS			
Married	54.4	27.2	27.1 **
Living with partner	8.3	11.3	-3.0
Divorced, separated, widowed	12.6	15.9	-3.4
Never married	24.8	45.5	-20.8 **
PARENT OF ONE OR MORE CHILDREN UNDER 18	40.0	23.6	16.4 **
EDUCATION			
Less than high school	5.0	11.9	-6.9 *
High school graduate (includes some college)	47.0	71.5	-24.5 **
College graduate or higher	48.0	16.6	31.4 **
WORK STATUS			
Full-time	52.9	41.0	11.9 **
Part-time	19.0	20.2	-1.2
Not working	28.1	38.8	-10.7 *
SELF-EMPLOYED	9.5	12.6	-3.1
WORKS AT A FIRM WITH FEWER THAN 51 EMPLOYEES	14.5	28.2	-13.8 **
SELF-REPORTED HEALTH STATUS			
Very good or excellent	65.3	57.6	7.7
Good	22.2	29.3	-7.1
Fair or poor	12.5	13.0	-0.5
ANY CHRONIC CONDITION[A]	51.1	45.5	5.6
Hypertension	20.8	12.2	8.6 **
Heart disease	4.5	2.5	1.9 *
Diabetes	7.2	2.1	5.1 **
Asthma	15.2	8.0	7.2 **

(CONTINUED NEXT PAGE)

APPENDIX EXHIBIT VIII.1: (CONTINUED)

	INSURED AT THE TIME OF THE SURVEY	UNINSURED AT THE TIME OF THE SURVEY	DIFFERENCE
ACTIVITIES ARE LIMITED BY HEALTH PROBLEM	17.6	20.7	-3.1
FAMILY INCOME RELATIVE TO THE FEDERAL POVERTY LEVEL (FPL)			
Less than 100% of FPL	14.2	24.3	-10.1 **
100-299% of FPL	27.8	50.6	-22.8 **
300-499% of FPL	22.4	16.5	5.9
500% of FPL or more	35.6	8.6	27.0 **
REGION			
Boston	11.2	15.8	-4.5
MetroWest	32.9	30.9	2.0
Northeast	11.2	15.1	-3.9
Central	12.5	7.8	4.7 **
West	12.9	8.7	4.1 *
Southeast	19.2	21.6	-2.3

Source: 2010 Massachusetts Health Reform Survey (N=2,639 insured; N=295 uninsured).

*(**) Significantly different from the value for always insured adults 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.