

THE IMPACTS OF HEALTH REFORM

ON HEALTH INSURANCE COVERAGE
AND HEALTH CARE ACCESS, USE, AND AFFORDABILITY
FOR WOMEN IN MASSACHUSETTS

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INTRODUCTION

As a result of its landmark 2006 health reform legislation, Massachusetts has achieved near universal health insurance coverage, along with significant gains both in access to and use of care and in the affordability of care.¹ Improvements have been documented for the population as a whole, as well as for vulnerable subgroups such as lower-income adults, racial and ethnic minorities, and adults with chronic health conditions. This paper extends those analyses to examine the impacts of health reform on women in the state.

There are many reasons to believe that women would benefit from having greater access to health care. Women tend to have a greater need for health care services compared to men, in large part due to their reproductive health needs and greater incidence of chronic conditions.² While women tend to have higher rates of insurance coverage than men, largely due to the availability of Medicaid coverage for the families of low-income children, they are more likely to forego care because of costs.³ Women typically earn less than men,⁴ which can make it more difficult for them to afford needed care. Coupled with their greater health needs, women also spend a greater share of their income on medical care, and are more likely than men to struggle with medical bills or debt.⁵

This study examines how nonelderly women 18 to 64 years have fared under health reform in Massachusetts. We focus on the impacts of health reform on insurance coverage, access to and use of health care, and the affordability of health care between fall 2006, which was just prior to the implementation of key elements of health reform in the state, and fall 2009.

¹ Long SK, Stockley K. Health Reform in Massachusetts: An Update as of Fall 2009. Boston: Blue Cross Blue Shield of Massachusetts Foundation; forthcoming.

² Kaiser Family Foundation. Putting Women's Health Care Disparities on the Map: Examining Racial and Ethnic Disparities at the State Level [Internet]. 2009 Jun [cited 2010 May 19]. Publication No.: 7886. Available from: www.kff.org.

³ Rustgi SD, Doty MM, Collins SR. Women at Risk: Why Many Women are Foregoing Needed Health Care [Internet]. New York: The Commonwealth Fund; 2010 [cited 2010 May 19]. Available from: <http://www.commonwealthfund.org/Content/Publications/Issue-Briefs/2009/May/Women-at-Risk.aspx>.

⁴ Historical Income Tables – People, Table P-40: Woman's Earnings as a Percentage of Men's Earnings by Race and Hispanic Origin: 1960 to 2007 [Internet]. Washington (DC): U.S. Census Bureau [cited 2010 May 19]. Available from: <http://www.census.gov/hhes/www/income/histinc/p40.html>.

⁵ Rustgi SD, Doty MM, Collins SR. Women at Risk: Why Many Women are Foregoing Needed Health Care [Internet]. New York: The Commonwealth Fund; 2010 [cited 2010 May 19]. Available from: <http://www.commonwealthfund.org/Content/Publications/Issue-Briefs/2009/May/Women-at-Risk.aspx>.

KEY FINDINGS

Between fall 2006 and fall 2009, nonelderly women in Massachusetts achieved significant gains in insurance coverage and in access to and use of health care, as well as some significant improvements in the affordability of care. Most notably:

- In fall 2009, 97.1 percent of women in Massachusetts were insured, up from 91.4 percent in fall 2006. Much of this gain was due to an increase in public and other coverage among women, which was 4.1 percentage points higher in fall 2009 than it was in fall 2006.
- Nearly all women (92.8 percent) had a usual source of health care in fall 2009; that is, a place they usually went to when they were sick or needed advice about their health, up from 90.3 percent in fall 2006.
- More than 90 percent of women had a general doctor visit, and 82 percent had a preventive care visit in fall 2009, as compared to 84.8 percent and 77.4 percent, respectively, in fall 2006.
- The use of dental care also increased under health reform, up by 6.4 percentage points between fall 2006 and fall 2009.
- As a result of these gains, there were strong reductions in the shares of women reporting that they went without needed health care under health reform. Overall unmet need for care decreased 5.7 percentage points between fall 2006 and fall 2009. Unmet need for medical tests, treatment, or follow-up care; prescription drugs; and dental care each decreased between 2 and 3 percentage points.

Compared to gains in coverage and in access to and use of care, gains in the affordability of care were more limited for women under health reform. Between fall 2006 and fall 2009, there was no significant change in the burden of out-of-pocket health care costs, in problems paying medical bills, or in medical debt. However, there was a significant drop in the share of women reporting that they did not get needed care because of costs. Unmet need because of costs decreased under health reform both overall (down 3.7 percentage points) and for doctor care; medical tests, treatment, or follow-up care; prescription drugs; and dental care, specifically.

The gains under health reform were particularly strong for subgroups of women who started out with lower levels of insurance coverage, poorer access to and use of care, and more problems with the affordability of care prior to reform. This population includes lower-income women, racial/ethnic minority women, and women without dependent children.

Despite the significant gains that women have achieved under health reform, challenges remain. The majority of the roughly 60,000 women who remained uninsured in fall 2009 have incomes below 300 percent of the federal poverty level (FPL), and therefore may be eligible for MassHealth or Commonwealth Care. This suggests a continuing need for targeted outreach to enroll eligible, uninsured women. Some barriers to obtaining care also persist. In fall 2009, more than one in five women reported difficulty finding a provider who would see them. Likewise, despite the improvements in access to care under health reform, more than one in five women reported going

without needed health care in fall 2009. Figures were similar for those women who reported having problems paying medical bills and for those who reported having medical debt. While more common among lower-income women and women with public insurance coverage, such problems also affected higher-income women and women with employer-sponsored insurance, highlighting the complexity of many of the remaining barriers to care for women in the health care system in Massachusetts overall.

OVERVIEW OF THE KEY ELEMENTS OF HEALTH REFORM IN MASSACHUSETTS

In April 2006, Massachusetts enacted a health care reform bill 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 requirements for individuals and employers.⁶ Key features of the Massachusetts initiative, entitled *An Act Providing Access To Affordable, Quality, Accountable Health Care* (Chapter 58 of the Acts of 2006), include:

- An expansion of Massachusetts' Medicaid program (MassHealth) to children with family income up to 300 percent of the FPL,
- The elimination of enrollment caps for MassHealth coverage for several populations, including long-term unemployed adults, disabled working adults, and persons with HIV,
- Income-related subsidies for health insurance (Commonwealth Care) for adults with family income up to 300 percent of the FPL,
- A new purchasing arrangement (Commonwealth Choice) that links individuals to private health plans,
- Health insurance market reforms that merge the small and non-group markets in an effort to reduce the cost of non-group premiums,
- An individual mandate that requires adults either to have health insurance if they have access to an affordable health plan or face state tax penalties, and
- A requirement that employers with more than ten employees create a Section 125 plan (or "cafeteria" plan)⁷ for their workers so that employees can pay for health insurance premiums with pre-tax dollars. Employers with more than ten employees who do not make a "fair and reasonable" contribution towards their workers' health insurance are also subjected to an assessment not to exceed \$295 per full-time equivalent worker per year.

⁶ For a summary of the provisions of the legislation, see Massachusetts Health Care Reform Bill Summary [Internet]. Boston: Blue Cross Blue Shield of Massachusetts Foundation; 2006 July 5 [cited 2010 May 19]. Available from: http://www.bcbsmafoundation.org/foundationroot/en_US/documents/MassHCREformLawSummary.pdf.

⁷ Under Section 125 of the Internal Revenue Code, employers can allow their employees to pay for health coverage (and other benefits) on a pre-tax basis. Pre-tax benefits lower payroll-related taxes for both the employer and employees.

DATA AND METHODS

We use household survey data from the Massachusetts Health Reform Survey to examine changes over time in insurance coverage, in access to and use of health care, and in affordability of health care for women aged 18 to 64 years. The surveys, which have been conducted every fall since 2006,⁸ are based on stratified random samples, with oversamples of the low- and moderate-income adults and uninsured adults who are the primary focus of many elements of Massachusetts' health reform initiative.^{9, 10}

Our analytic approach compares outcomes for cross-sectional samples of women in periods following the implementation of health reform (e.g., fall 2007, fall 2008, and fall 2009) to the outcomes for a similar cross-sectional sample of women in fall 2006, just prior to the implementation of key elements of health reform.¹¹ Under this pre-post framework, differences in outcomes between the baseline time period (fall 2006) and the follow-up time periods (fall 2007, fall 2008, and fall 2009) are attributed to the state's reform efforts. The primary risk to pre-post analyses is that other factors beyond health reform changed during the time period, biasing the estimates of the impacts of health reform. For example, the economic recession that began in December 2007 raises the possibility that our estimates of the impacts of health reform may be biased downward by the failing economy. A recession would be expected to lead to a drop in health insurance coverage (as unemployment increased and individuals lost employer-sponsored coverage)¹² and, as a result, to poorer access to health care and more difficulties with health care costs, all else equal.¹³ The estimates are also likely to capture the effects of the continuing increase in health care costs in the state, a national trend that predates health reform.

An analysis using data from 2006 to 2008 from the Current Population Survey found that pre-post estimates of the impacts of health reform in Massachusetts on insurance coverage through 2008 were not substantially affected by such confounding factors.¹⁴ However, with the worsening of the recession in Massachusetts in 2009, it is likely that differences in coverage between fall 2006 and fall 2009 will capture the effects of health reform and the effects of the recession. Unemployment among working-age adults in Massachusetts rose from 4.4 percent in December 2006 to 9.1 percent in December 2009.¹⁵ Accordingly, we might expect to see a loss of ground in Massachusetts

⁸ The Massachusetts Health Reform Survey is supported by the Blue Cross Blue Shield of Massachusetts Foundation. The survey was also supported by the Commonwealth Fund and the Robert Wood Johnson Foundation in 2006, 2007, and 2008.

⁹ Long SK. The Massachusetts Health Reform Survey [Internet]. Washington (DC): Urban Institute; 2009 [cited 2010 Apr 6]. Available from: <http://www.urban.org/url.cfm?ID=411649>.

¹⁰ Estimates from the MHRS may differ from other survey estimates for a host of reasons, including differences in questionnaire design and survey fielding. For a discussion of differences in insurance estimates from surveys in Massachusetts, see Long SK, Zuckerman S, Triplett T, Cook A, Nordahl K, Siegrist T, Wacks C. Estimates of the Uninsurance Rate in Massachusetts from Survey Data: Why Are They So Different? [Internet] Boston: Massachusetts Division of Health Care Finance and Policy; 2008 [cited 2010 May]. Available from: http://www.mass.gov/Eeohhs2/docs/dhcfp/r/pubs/o8/est_of_uninsur_rate.pdf.

¹¹ 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.

¹² Although some would obtain other coverage (e.g., coverage through a spouse or public coverage), others would become uninsured.

¹³ The impacts of the recession on insurance coverage were mitigated to some extent by the fiscal relief provided to states under the American Recovery and Reinvestment Act and the changes under the Children's Health Insurance Program Reauthorization Act.

¹⁴ Long SK, Stockley K, Yemane A. State Strategies to Expand Insurance Coverage: A Comparison of the Impacts of Health Reform for Adults in New York and Massachusetts. Working paper. Washington (DC): Urban Institute; 2010.

¹⁵ Labor Force and Unemployment Data [Internet]. Boston: Massachusetts Executive Office of Labor and Workforce Development; 2010 [cited 2010 Apr 6]. Available from: http://lmi2.detma.org/Lmi/lmi_lur_a.asp.

in coverage, access to care, and affordability of care between fall 2008 and fall 2009 due to the economic downturn.

For much of this work, we report estimates based on multivariate regression models that control for the demographic, health and disability, and socioeconomic characteristics of the woman and region fixed effects, using data for all four years of the survey (fall 2006, fall 2007, fall 2008, and fall 2009). The specific characteristics of women included in the model included age, race/ethnicity, citizenship, marital status, parent status, education, employment, firm size, health status, disability status, whether the woman has a chronic health conditions or is pregnant, and family income.¹⁶ We focus on comparisons between fall 2009 and fall 2006. In presenting the estimates of the impacts of health reform, we report on the outcomes for women in the state as of fall 2009 and estimates of how those women would have fared in Massachusetts in fall 2006. To calculate the latter, we use the parameter estimates from the regression models to predict the outcomes that the women in the 2009 sample would have had if they had been observed in 2006. For ease of comparison across models, we estimate linear probability models. We control for the complex design of the sample using the survey data analysis procedures (svy) in Stata 11.¹⁷

FINDINGS

WOMEN IN MASSACHUSETTS PRIOR TO HEALTH REFORM

In fall 2006, just prior to the implementation of health reform in Massachusetts, 91.4 percent of women had insurance coverage,¹⁸ with most (67.1 percent) covered by employer-sponsored insurance (first column of [Exhibit 1](#)).¹⁹ Most women (90.3 percent) also had a usual source of health care and 84.8 percent reported a general doctor visit over the prior year.²⁰ While many women in 2006 also reported using other types of health care (including specialist care, dental care, and prescription drugs), more than one quarter (26.9 percent) reported that they had not received some type of needed health care over the prior year, raising concerns about access to care in the community. Another indicator suggesting barriers to obtaining care was that almost one in five women (17.2 percent) reported that their most recent emergency department (ED) visit was for a condition that could have been treated by a regular doctor had one been available.

¹⁶ Appendix Exhibit 1 reports on the characteristics of the samples of women in fall 2006 and fall 2009.

¹⁷ StataCorp. Stata Statistical Software: Release 11. College Station, TX: StataCorp LP; 2009.

¹⁸ The comparable figure for women in the nation as a whole was 82.4 percent based on authors' tabulations of the 2006 National Health Interview Survey.

¹⁹ Simple (unadjusted) differences are provided in Appendix Exhibit 2.

²⁰ Prior to health reform, Massachusetts residents, including women, tended to have better access to care than did residents in other states. For example, 85.9 percent of nonelderly women had a usual source of care in 2006 in the nation as a whole, and 81.2 percent had a visit to a doctor or specialist. Author's tabulations of the 2006 National Health Interview Survey.

EXHIBIT 1: REGRESSION-ADJUSTED ESTIMATES OF THE IMPACTS OF HEALTH REFORM ON HEALTH INSURANCE COVERAGE AND HEALTH CARE ACCESS, USE, AND COSTS FOR WOMEN 18 TO 64 BETWEEN FALL 2006 AND FALL 2009

	FALL 2006	FALL 2009	2009 - 2006 DIFFERENCE
INSURANCE COVERAGE			
Any insurance coverage	91.4	97.1	5.7 ***
ESI coverage	67.1	68.7	1.6
Public or other coverage	24.3	28.4	4.1 **
HEALTH CARE ACCESS AND USE			
Has a usual source of care (excluding the ED)	90.3	92.8	2.5 **
Any general doctor visit in past 12 months	84.8	90.7	5.8 ***
Visit for preventive care	77.4	82.0	4.6 **
Any specialist visit in past 12 months	56.6	60.1	3.4
Any dental care visit in past 12 months	72.7	79.1	6.4 ***
Took any prescription drugs in past 12 months	61.8	64.1	2.3
Did not get needed care for any reason in past 12 months	26.9	21.2	-5.7 ***
Doctor care	7.1	6.1	-1.1
Specialist care	6.9	5.8	-1.1
Medical tests, treatment, or follow-up care	9.6	6.7	-3.0 **
Preventive care screening	6.0	6.3	0.2
Prescription drugs	8.6	6.2	-2.4 **
Dental care	13.0	10.2	-2.8 **
Any ED visits in past 12 months	35.4	36.0	0.6
Most recent ED visit was for non-emergency condition ^a	17.2	16.5	-0.7
Share of those who used care in the past 12 months rating quality of care as very good or excellent	66.2	68.4	2.2
HEALTH CARE COSTS AND AFFORDABILITY			
Out-of-pocket health care costs over the past 12 months			
At 5% or more of family income for those less than 500% of poverty ^b	22.2	18.8	-3.4
At 10% or more of family income for those less than 500% of poverty ^b	9.0	6.5	-2.5
Had problems paying medical bills in past 12 months	20.9	22.2	1.3
Have medical bills that are paying off over time	20.5	23.3	2.9
Had problems paying other bills in past 12 months	25.3	29.0	3.8 **
Did not get needed care because of costs in the past 12 months	17.2	13.6	-3.7 **
Doctor care	5.2	3.4	-1.8 *
Specialist care	4.5	3.3	-1.3
Medical tests, treatment, or follow-up care	6.6	3.2	-3.4 ***
Preventive care screening	2.8	3.0	0.2
Prescription drugs	5.9	4.0	-1.9 **
Dental care	10.2	7.8	-2.3 *

SOURCE: 2006-2009 MASSACHUSETTS HEALTH REFORM SURVEYS (N=13,150)

Note: The regression-adjusted estimates are derived from models that control for age, 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 fixed effects. The reported values for adults in 2009 are the actual values in that year. The regression-adjusted estimates for 2006 are calculated using the parameter estimates from the regression models to predict the outcomes that the adults in the 2009 sample would have had if they had been observed in 2006. Simple (unadjusted) differences are provided in Appendix Exhibit 2. ED is emergency department.

^a A condition that the respondent thought could have been treated by a regular doctor if one had been available.

^b 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 500% of poverty.

* (**) (***) Significantly different from zero at the .10 (.05) (.01) level, two-tailed test.

Affordability of health care was also an issue for women prior to health reform, with roughly one in five women reporting out-of-pocket health care spending at five percent or more of family income. Figures were similar for women who reported problems paying medical bills (20.9 percent) and for women who reported having medical debt that they were paying off over time (20.5 percent). Consistent with those financial issues, nearly one in five women (17.2 percent) in fall 2006 reported that they did not get some type of needed care over the last year because of costs. The most common type of unmet need due to costs was dental care (10.2 percent); followed by medical tests, treatment, or follow-up care (6.6 percent); prescription drugs (5.9 percent); doctor care (5.2 percent); specialist care (4.5 percent); and preventive care screening (2.8 percent).

As would be expected based on national data, nonelderly women in Massachusetts were more likely than nonelderly men to have had health insurance coverage prior to health reform and were more likely to use health care services. For example, simple (unadjusted) estimates show 82.4 percent of men with insurance coverage in fall 2006, with 74.8 percent reporting a general doctor visit (data not shown). Also consistent with national data, women in Massachusetts tended to have somewhat lower family income than men and to have more problems paying bills, including medical bills (data not shown).

THE IMPACTS OF HEALTH REFORM ON WOMEN IN MASSACHUSETTS

Under health reform, women in Massachusetts achieved significant gains in insurance coverage and in access to and use of health care, as well as significant improvements in the affordability of care (third column of [Exhibit 1](#)). In fall 2009, 97.1 percent of women had health insurance coverage, an increase of 5.7 percentage points above the pre-reform level.²¹ Much of this gain was due to an increase in public and other coverage among women, which was 4.1 percentage points higher in fall 2009 than it was in fall 2006.

These gains in coverage appear to have translated into better access to health care in fall 2009 than in fall 2006. The share of women with a usual source of care increased under health reform (up 2.5 percentage points), as did health care use. For example, the share of women with a general doctor visit increased by 5.8 percentage points. Moreover, preventive care visits were up by 4.6 percentage points and dental care was up by 6.4 percentage points between fall 2006 and fall 2009.

Increases in the use of health care services under health reform were accompanied by a decrease in unmet need for care. In fall 2009, overall unmet need for care decreased by 5.7 percentage points from the levels of unmet need in fall 2006. Unmet need for

²¹ While data for the nation as a whole for 2009 are not yet available, the share of women with insurance coverage in the nation as a whole did not change between 2006 and 2008 based on authors' tabulations of the 2006 National Health Interview Survey.

medical tests, treatment, or follow-up care; prescription drugs; and dental care were each down between 2 and 3 percentage points under health reform.

In fall 2009, there was less evidence of gains in the affordability of care for women. Under health reform, there was no significant change in the share of women spending five percent or more of family income on out-of-pocket health care costs; in the share of women with problems paying medical bills; or in the share of women with medical debt being paid off over time. However, there was a significant drop in the share of women reporting unmet need for care because of costs. Unmet need because of costs decreased under health reform both overall (down 3.7 percentage points) and for doctor care; medical tests, treatment, or follow-up care; prescription drugs; and dental care, specifically.

Similar to women in Massachusetts, nonelderly men also gained ground under health reform. Most notably, health insurance coverage for men increased by more than 10 percentage points between fall 2006 and fall 2009 (data not shown). Consistent with that increase in coverage, men also achieved significant gains in health care access and use under health reform. Despite those gains by men, however, women continued to have higher levels of health insurance coverage, higher levels of health care use, and more problems with the affordability of care in fall 2009.

THE IMPACTS OF HEALTH REFORM ON SUBGROUPS OF WOMEN

Beyond the overall impact of health reform on women, we also considered the impacts of reform on selected subgroups of women; specifically, lower-income women (defined as those with family income below 300 percent of the federal poverty level), women of minority race/ethnicity (defined as non-white or Hispanic women), older women aged 50 to 64 (who pay higher premium rates due to age rating and are more likely to have a chronic health condition),²² and women without dependent children (who were not typically eligible for public assistance prior to health reform but now are eligible for subsidized care under Commonwealth Care).²³

As shown in [Exhibit 2](#), there were strong gains in fall 2009 for all four subgroups of women under health reform in Massachusetts, with the strongest gains obtained by the women who had lower levels of insurance coverage prior to reform. For example, lower-income women realized a 9.4 percentage point gain in insurance coverage, from 85.1 percent in fall 2006 to 94.5 percent in fall 2009. Women without dependent children moved from 88.6 percent to 96.4 percent, and racial/ethnic minority women moved from 89.6 percent to 95.5 percent over that period. Older women, who

²² U.S. Department of Health and Human Services, “Strengthening the Health Insurance System: How Health Insurance Reform Will Help America’s Older and Senior Women” available at <http://www.healthreform.gov/reports/seniorwomen/index.html>.

²³ Prior to health reform in Massachusetts adults without dependent children were only eligible for MassHealth if they were severely disabled or had access to employer-sponsored coverage through a small business that participated in the Insurance Partnership Program. The latter group was eligible for a premium subsidy under MassHealth so long as family income was at or below 200 percent of the FPL.

EXHIBIT 2: REGRESSION-ADJUSTED ESTIMATES OF THE IMPACTS OF HEALTH REFORM IN HEALTH INSURANCE COVERAGE AND HEALTH CARE ACCESS, USE, AND COSTS FOR SUBGROUPS OF WOMEN 18 TO 64, FALL 2006 TO FALL 2009

	LOWER-INCOME WOMEN			MINORITY WOMEN		
	Fall 2006	Fall 2009	2009 - 2006 Difference	Fall 2006	Fall 2009	2009 - 2006 Difference
INSURANCE COVERAGE						
Any insurance coverage	85.1	94.5	9.4 ***	89.6	95.5	5.9 ***
ESI coverage	37.3	38.2	0.9	51.0	53.6	2.6
Public or other coverage	47.8	56.3	8.5 ***	38.6	41.9	3.3
HEALTH CARE ACCESS AND USE						
Has a usual source of care (excluding the ED)	85.6	86.2	0.6	86.6	91.8	5.2
Any general doctor visit in past 12 months	81.4	89.8	8.4 ***	75.3	85.8	10.6 ***
Visit for preventive care	72.6	80.7	8.1 **	71.0	82.6	11.5 ***
Any specialist visit in past 12 months	52.3	57.7	5.4	42.7	50.4	7.7
Any dental care visit in past 12 months	55.9	67.4	11.5 ***	67.3	70.3	3.0
Took any prescription drugs in past 12 months	63.4	69.5	6.1 *	49.9	61.7	11.8 ***
Did not get needed care for any reason in past 12 months	35.8	26.4	-9.4 ***	31.6	22.8	-8.8 **
Doctor care	11.5	8.1	-3.5 *	5.7	4.6	-1.2
Specialist care	10.5	7.4	-3.1	7.3	5.2	-2.1
Medical tests, treatment, or follow-up care	13.8	7.3	-6.5 ***	8.2	5.2	-3.0
Preventive care screening	6.2	6.5	0.3	4.4	4.4	0.1
Prescription drugs	13.1	7.8	-5.4 ***	10.9	6.1	-4.8 *
Dental care	20.0	14.5	-5.5 **	18.5	11.8	-6.7 *
Any ED visits in past 12 months	51.2	51.2	0.0	46.6	49.9	3.2
Most recent ED visit was for non-emergency condition ^a	28.7	25.3	-3.4	28.1	31.6	3.5
Share of those who used care in the past 12 months rating quality of care as very good or excellent	57.9	63.3	5.4	52.1	55.7	3.6
HEALTH CARE COSTS AND AFFORDABILITY						
Out-of-pocket health care costs over the past 12 months						
At 5% or more of family income for those less than 500% of poverty ^b	25.2	19.5	-5.7 *	13.2	16.9	3.7
At 10% or more of family income for those less than 500% of poverty ^b	11.9	7.3	-4.6 **	6.4	6.8	0.4
Had problems paying medical bills in past 12 months	31.5	29.6	-2.0	26.0	26.9	0.9
Have medical bills that are paying off over time	25.6	28.6	3.1	24.5	20.3	-4.2
Had problems paying other bills in past 12 months	39.1	45.4	6.3 *	36.9	41.0	4.1
Did not get needed care because of costs in the past 12 months	27.4	16.2	-11.2 ***	20.7	11.6	-9.1 ***
Doctor care	9.1	4.5	-4.7 ***	3.7	1.8	-1.9
Specialist care	7.8	3.3	-4.5 ***	4.1	1.4	-2.7 **
Medical tests, treatment, or follow-up care	11.1	3.1	-8.0 ***	5.6	1.9	-3.6 **
Preventive care screening	3.5	3.5	-0.0	2.2	2.2	-0.0
Prescription drugs	10.0	5.4	-4.6 ***	6.4	3.7	-2.7
Dental care	16.4	9.9	-6.5 ***	13.1	5.2	-8.0 ***

SOURCE: 2006-2009 MASSACHUSETTS HEALTH REFORM SURVEYS (N=13,150)

Note: The regression-adjusted estimates are derived from models that control for age, 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. The reported values for adults in 2009 are the actual values in that year. The regression-adjusted estimates for earlier years are calculated using the parameter estimates from the regression models to predict the outcomes that the adults in the 2009 sample would have had if they had been observed in 2006. ED is emergency department. Lower-income women are those with incomes below 300% of the federal poverty level. Minority women include Hispanic and non-

white, non-Hispanic adults. Older women are those between the ages of 50 to 64. Women without dependent children are those without a dependent child under the age of 18 living in the household.

^a A condition that the respondent thought could have been treated by a regular doctor if one had been available.

^b 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 500% of poverty.

* (**) (***) Significantly different from zero at the .10 (.05) (.01) level, two-tailed test.

EXHIBIT 2 (CONTINUED): REGRESSION-ADJUSTED ESTIMATES OF THE IMPACTS OF HEALTH REFORM IN HEALTH INSURANCE COVERAGE AND HEALTH CARE ACCESS, USE, AND COSTS FOR SUBGROUPS OF WOMEN 18 TO 64, FALL 2006 TO FALL 2009

	OLDER WOMEN 50 TO 64			WOMEN WITHOUT DEPENDENT CHILDREN		
	Fall 2006	Fall 2009	2009 - 2006 Difference	Fall 2006	Fall 2009	2009 - 2006 Difference
INSURANCE COVERAGE						
Any insurance coverage	94.4	98.4	3.9 ***	88.6	96.4	7.8 ***
ESI coverage	74.0	73.5	-0.5	66.1	67.0	0.9
Public or other coverage	20.5	24.9	4.4 **	22.5	29.4	6.9 ***
HEALTH CARE ACCESS AND USE						
Has a usual source of care (excluding the ED)	93.5	95.1	1.6	88.6	92.5	3.9 **
Any general doctor visit in past 12 months	89.7	91.0	1.3	84.6	90.6	5.9 **
Visit for preventive care	83.6	83.1	-0.5	77.2	81.6	4.4
Any specialist visit in past 12 months	64.9	64.5	-0.4	58.6	61.3	2.6
Any dental care visit in past 12 months	73.6	78.9	5.3 **	72.5	74.9	2.4
Took any prescription drugs in past 12 months	73.2	75.5	2.3	64.3	71.5	7.1 **
Did not get needed care for any reason in past 12 months	22.8	17.3	-5.5 **	28.3	20.2	-8.0 ***
Doctor care	5.0	4.1	-0.9	7.8	6.1	-1.7
Specialist care	5.5	3.7	-1.9	8.4	6.4	-2.0
Medical tests, treatment, or follow-up care	6.5	4.2	-2.3 **	10.6	6.3	-4.3 ***
Preventive care screening	5.8	5.0	-0.8	6.6	6.1	-0.5
Prescription drugs	6.7	4.9	-1.8	9.8	5.6	-4.2 ***
Dental care	10.4	6.5	-3.9 **	13.4	10.6	-2.8 *
Any ED visits in past 12 months	30.7	27.6	-3.1	34.9	33.7	-1.2
Most recent ED visit was for non-emergency condition ^a	11.1	10.3	-0.8	17.7	15.0	-2.6
Share of those who used care in the past 12 months rating quality of care as very good or excellent	71.6	76.9	5.3 *	68.3	72.4	4.2
HEALTH CARE COSTS AND AFFORDABILITY						
Out-of-pocket health care costs over the past 12 months						
At 5% or more of family income for those less than 500% of poverty ^b	31.9	26.6	-5.4	26.9	24.2	-2.7
At 10% or more of family income for those less than 500% of poverty ^b	12.4	9.3	-3.1	13.3	10.2	-3.2
Had problems paying medical bills in past 12 months	19.7	18.3	-1.4	22.9	19.5	-3.4
Have medical bills that are paying off over time	18.8	20.6	1.8	20.3	16.6	-3.7
Had problems paying other bills in past 12 months	19.3	20.0	0.7	20.4	20.1	-0.3
Did not get needed care because of costs in the past 12 months	13.1	9.7	-3.3 *	18.7	13.1	-5.6 ***
Doctor care	3.4	1.5	-1.9 **	6.6	3.5	-3.1 **
Specialist care	2.7	2.0	-0.7	5.6	4.0	-1.6
Medical tests, treatment, or follow-up care	4.3	2.2	-2.1 **	7.8	3.0	-4.9 ***
Preventive care screening	2.7	1.7	-1.1	3.9	2.8	-1.1
Prescription drugs	4.5	3.2	-1.3	6.7	3.6	-3.1 **
Dental care	7.4	5.3	-2.1	10.5	7.5	-3.0 *

started out with much higher levels of coverage prior to health reform as compared to the other groups of women, also had a significant gain in coverage, rising from 94.4 percent in fall 2006 to 98.4 percent in fall 2009.

Consistent with those gains in coverage, we saw improvements in access to and use of care and in the affordability of care under health reform for all four of these subgroups of women. As with the gains in coverage, the strongest gains in access, use, and affordability between fall 2006 and fall 2009 were reported by women who were more likely to lack access prior to reform: lower-income women, minority women, and women without dependent children. For example, the share of lower-income women who had visited a doctor over the prior year increased by 8.4 percentage points under health reform. This was accompanied by a 9.4 percentage point reduction in any unmet need and an 11.2 percentage reduction in unmet need related to cost for lower-income women. For minority women, the share with a doctor visit was up by 10.6 percentage points under health reform. Unmet need overall was down by 8.8 percentage points and unmet need due to costs was down by 9.1 percentage points. Finally, for women without dependent children, the share with a doctor visit was up by 5.9 percentage points under health reform. Unmet need overall was down by 8.0 percentage points and unmet need due to costs was down by 5.6 percentage points.

ADDRESSING THE CONTINUING NEEDS OF WOMEN UNDER HEALTH REFORM

Despite the strong gains reported by women under health reform, challenges remain. We estimate that roughly 60,000 women aged 18 to 64 were uninsured in fall 2009. Moreover, one in every five women reported problems obtaining care or paying for the care they needed (data not shown). In this section, we examine the characteristics of the women who remained uninsured or reported difficulties obtaining care in fall 2009. Although the sample sizes are small for some of these analyses, the information can be useful for developing policies to address the insurance and health care needs of women that persist under health reform.

Who are the remaining uninsured women?

The women who were uninsured at the time of the survey in Massachusetts in fall 2009 were disproportionately young (ages 18 to 25), Hispanic, and single ([Exhibit 3](#)). While most of the uninsured women reported their health status as good or better, a sizeable minority (26.4 percent) reported fair or poor health, a rate that was nearly double that experienced among insured women.

From an economic perspective, uninsured women were less likely to have completed college and were more likely to be working part-time or not at all, as compared to insured women in the state. Consistent with their lower levels of educational attainment and more limited employment, uninsured women were much more likely to be low income than were insured women. More than 75 percent of uninsured women had family income below 300 percent of the FPL, as compared to about 40 percent of

**EXHIBIT 3: CHARACTERISTICS OF UNINSURED WOMEN 18 TO 64
IN MASSACHUSETTS IN FALL 2009**

	INSURANCE STATUS			
	ALL WOMEN	Insured Women	Uninsured Women	Simple Difference
AGE (YEARS)				
18 to 25	12.5	11.7	36.7	-25.0 ***
26 to 34	17.6	17.6	16.2	1.4
35 to 49	39.3	39.6	29.8	9.8
50 to 64	30.7	31.1	17.3	13.8 ***
RACE/ETHNICITY				
White, non-Hispanic	80.2	80.6	69.3	11.3 **
Non-white, non-Hispanic	12.0	11.8	16.1	-4.3
Hispanic	7.8	7.6	14.6	-7.0 **
U.S. CITIZEN	95.8	96.0	90.9	5.1 **
MARITAL STATUS				
Married	56.6	57.5	25.1	32.4 ***
Living with partner	7.5	7.4	11.1	-3.7
Divorced, separated, widowed	16.2	16.0	21.3	-5.3
Never married	19.7	19.1	42.5	-23.4 ***
PARENT OF ONE OR MORE CHILDREN UNDER 18	49.1	49.5	36.0	13.5 *
EDUCATION				
Less than high school	4.9	4.8	9.0	-4.2 *
High school graduate	20.5	20.2	31.4	-11.2
Some college	28.9	28.9	30.9	-2.0
College graduate or higher	45.6	46.1	28.7	17.5 ***
WORK STATUS				
Full-time	40.8	41.2	28.2	13.0 **
Part-time	26.6	26.4	32.9	-6.5
Not working	32.6	32.4	38.9	-6.5
SELF-EMPLOYED	6.6	6.7	2.7	4.0 ***
WORKS AT A FIRM WITH <= 50 EMPLOYEES	14.5	14.1	30.6	-16.5 ***
HEALTH STATUS				
Very good or excellent	63.3	63.9	43.2	20.7 ***
Good	22.4	22.2	30.4	-8.3
Fair or poor	14.3	13.9	26.4	-12.5 **
ANY CHRONIC CONDITION ^a	55.2	55.1	58.6	-3.5
ACTIVITIES ARE LIMITED BY HEALTH PROBLEM	19.1	19.1	18.4	0.6
FAMILY INCOME				
Less than 100% of poverty	15.0	14.6	28.6	-13.9 *
100-299% of poverty	26.0	25.3	49.5	-24.2 ***
300-499% of poverty	25.8	26.1	14.3	11.8 **
500% of poverty or more	33.2	33.9	7.7	26.3 ***
SAMPLE SIZE	1,705	1,542	163	

SOURCE: 2006-2009 MASSACHUSETTS HEALTH REFORM SURVEYS

^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 or sugar diabetes; asthma; any other chronic or long-term health condition or health problem; or are pregnant.

* (**) (***) Significantly different from zero at the .10 (.05) (.01) level, two-tailed test.

EXHIBIT 4: CHARACTERISTICS OF WOMEN 18 TO 64 WITH BARRIERS TO OBTAINING HEALTH CARE IN MASSACHUSETTS IN FALL 2009

	ANY UNMET NEED FOR HEALTH CARE			DIFFICULTY FINDING A PROVIDER ^a		
	Yes	No	Simple Difference	Yes	No	Simple Difference
AGE (YEARS)						
18 to 25	10.7	12.9	-2.3	15.5	11.5	4.0
26 to 34	20.1	17.0	3.1	25.2	15.2	10.0 ***
35 to 49	44.2	37.9	6.3	37.8	39.8	-1.9
50 to 64	25.1	32.1	-7.1 **	21.4	33.5	-12.1 ***
RACE/ETHNICITY						
White, non-Hispanic	78.8	80.6	-1.9	76.5	81.4	-5.0
Non-white, non-Hispanic	12.8	11.8	1.0	11.7	12.0	-0.2
Hispanic	8.4	7.5	0.9	11.8	6.6	5.2 *
U.S. CITIZEN						
	95.5	95.9	-0.4	96.7	95.6	1.1
MARITAL STATUS						
Married	46.5	59.4	-12.9 ***	46.0	59.9	-13.8 ***
Living with partner	9.9	6.6	3.3	10.5	6.6	3.9
Divorced, separated, widowed	22.4	14.5	7.9 ***	20.0	15.0	5.1 *
Never married	21.2	19.5	1.7	23.4	18.6	4.8
PARENT OF ONE OR MORE CHILDREN UNDER 18						
	51.6	48.6	3.0	57.5	46.5	11.0 **
EDUCATION						
Less than high school	8.7	3.8	4.9 **	5.7	4.7	1.0
High school graduate	21.3	20.3	1.0	27.9	18.2	9.7 **
Some college	31.9	28.1	3.8	28.5	29.1	-0.6
College graduate or higher	38.1	47.8	-9.7 **	37.9	48.0	-10.1 **
WORK STATUS						
Full-time	32.7	43.0	-10.3 ***	33.7	43.0	-9.3 **
Part-time	29.7	25.9	3.8	22.1	27.9	-5.8 **
Not working	37.6	31.1	6.5 *	44.2	29.0	15.2 ***
SELF-EMPLOYED						
	7.9	6.4	1.6	8.2	6.2	2.1
WORKS AT A FIRM WITH < =50 EMPLOYEES						
	19.4	13.1	6.3 *	14.8	14.4	0.4
HEALTH STATUS						
Very good or excellent	54.0	66.0	-12.0 ***	51.5	66.9	-15.4 ***
Good	20.7	22.7	-2.0	29.7	20.2	9.4 **
Fair or poor	25.3	11.3	14.0 ***	18.9	12.9	6.0 **
ANY CHRONIC CONDITION ^b						
	62.0	52.9	9.1 **	66.3	51.8	14.5 ***
ACTIVITIES ARE LIMITED BY HEALTH PROBLEM						
	30.9	15.6	15.3 ***	27.9	16.3	11.6 ***
FAMILY INCOME						
Less than 100% of poverty	14.1	15.2	-1.1	21.0	13.1	7.9 *
100-299% of poverty	37.0	23.2	13.8 ***	34.7	23.4	11.3 ***
300-499% of poverty	26.7	25.7	1.1	19.0	27.8	-8.8 **
500% of poverty or more	22.2	36.0	-13.8 ***	25.2	35.6	-10.4 ***
INSURANCE STATUS						
ESI coverage	55.0	72.6	-17.6 ***	53.0	73.6	-20.6 ***
Public and other coverage	38.2	25.5	12.6 ***	43.9	23.6	20.2 ***
Uninsured	6.8	1.8	5.0 ***	3.2	2.8	0.4
SAMPLE SIZE						
	437	1,252		402	1,301	

SOURCE: 2006-2009 MASSACHUSETTS HEALTH REFORM SURVEYS

a Includes adults who reported they had been told by a doctor's office or clinic in the past 12 months that the provider was not accepting patients with their type of health insurance or that the provider was not accepting any new patients.

b Includes adults who reported 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 or sugar diabetes; asthma; any other chronic or long-term health condition or health problem; or are pregnant.

* (**) (***) Significantly different from zero at the .10 (.05) (.01) level, two-tailed test.

insured women. Thus, it appears that a substantial share of the uninsured women in MA may be eligible for MassHealth or Commonwealth Care. In fall 2009, uninsured women who were below 300 percent of the FPL and therefore potentially eligible for MassHealth or Commonwealth Care tended to be young (more than half under age 35) and single (data not shown). Roughly one-third were mothers and about 20 percent were non-citizens. More than half of the uninsured women were employed, often at small firms (data not shown).

Who are the women having trouble getting or paying for care?

Exhibit 4 presents the shares of women who reported unmet need for health care over the prior year and/or difficulty finding a provider who would see them.²⁴ **Exhibit 5** reports on financial barriers to obtaining care. These financial barriers include unmet need for care because of costs and problems paying medical bills. As shown, there were broad similarities in the groups of women who had trouble obtaining health care or paying for health care in fall 2009.

Across all four measures, the women who reported problems obtaining or paying for care tended to be younger (less than 50 years old) and in poorer health. For example, one-quarter of those reporting unmet need for health care were in fair or poor health and almost one-third (30.9 percent) reported that their activities were limited by a health problem. Going without needed care is likely to be particularly problematic for women with health problems, potentially both lowering their quality of life and increasing future health care costs if their health condition worsens in the absence of timely and consistent care.^{25, 26, 27}

Single women and mothers were also more likely to report problems obtaining care compared to married women and women without dependent children. Economic factors were also an issue, with lower-income women, particularly those with family income between 100 and 300 percent of the FPL more likely to report problems obtaining care.

Consistent with their poorer health status and economic circumstances, the women who faced more problems obtaining or paying for care were more likely to have public or other coverage or to be uninsured. However, more than half of the women reporting difficulty obtaining care had employer-sponsored coverage and nearly half had family incomes above 300 percent of the FPL, suggesting that some barriers to obtaining care for women affect the entire health care system.

²⁴ This includes adults who reported they had been told by a doctor's office or clinic in the past 12 months that the provider were not accepting patients with their type of insurance or that the provider was not accepting any new patients.

²⁵ Hoffman C, Schwartz K. Eroding Access Among Nonelderly U.S. Adults with Chronic Conditions: Ten Years of Change. *Health Aff (Millwood)*. 2008; 27(5): 340-8.

²⁶ Pizer SD, Frakt AB, Iezzoni LI. Uninsured Adults with Chronic Conditions or Disabilities: Gaps in Public Insurance Programs. *Health Aff (Millwood)*. 2009; 28(6): w1141-50.

²⁷ McWilliams JM, Meara E, Zaslavsky AM, Ayanian JZ. Health of Previously Uninsured Adults After Acquiring Medicare Coverage. *JAMA*. 2007; 298(24): 2886-94.

EXHIBIT 5: CHARACTERISTICS OF WOMEN 18 TO 64 WITH FINANCIAL BARRIERS TO OBTAINING HEALTH CARE IN MASSACHUSETTS IN FALL 2009

	ANY UNMET NEED FOR HEALTH CARE BECAUSE OF COSTS			PROBLEMS PAYING MEDICAL BILLS		
	Yes	No	Simple Difference	Yes	No	Simple Difference
AGE (YEARS)						
18 to 25	8.8	13.0	-4.2	8.0	13.8	-5.8 *
26 to 34	23.2	16.7	6.5	23.0	16.1	6.9 **
35 to 49	46.0	38.3	7.7 *	43.9	38.0	5.9
50 to 64	22.0	32.0	-10.0 ***	25.1	32.1	-7.0 **
RACE/ETHNICITY						
White, non-Hispanic	83.1	79.8	3.3	76.1	81.5	-5.4
Non-white, non-Hispanic	10.8	12.1	-1.3	14.1	11.3	2.8
Hispanic	6.1	8.1	-2.0	9.8	7.3	2.5
U.S. CITIZEN						
	94.9	96.0	-1.1	95.0	96.0	-1.0
MARITAL STATUS						
Married	51.1	57.5	-6.4	51.7	58.0	-6.3
Living with partner	11.7	6.8	4.9	10.7	6.5	4.1
Divorced, separated, widowed	19.1	15.7	3.4	20.1	15.1	5.0 *
Never married	18.1	20.0	-1.9	17.6	20.4	-2.9
PARENT OF ONE OR MORE CHILDREN UNDER 18						
	50.7	48.8	1.9	55.4	47.4	7.9 **
EDUCATION						
Less than high school	6.7	4.7	2.0	3.9	5.2	-1.3
High school graduate	19.0	20.7	-1.7	31.3	17.5	13.8 ***
Some college	33.2	28.3	4.9	34.4	27.3	7.0 *
College graduate or higher	41.1	46.3	-5.2	30.4	49.9	-19.5 ***
WORK STATUS						
Full-time	30.7	42.4	-11.7 **	32.9	43.0	-10.1 ***
Part-time	35.0	25.3	9.7 *	28.2	26.2	2.0
Not working	34.3	32.3	1.9	38.9	30.8	8.1 *
SELF-EMPLOYED						
	9.0	6.3	2.7	8.2	6.2	2.1
WORKS AT A FIRM WITH <= 50 EMPLOYEES						
	22.4	13.3	9.1 *	16.8	13.8	3.0
HEALTH STATUS						
Very good or excellent	58.0	64.1	-6.1	48.0	67.7	-19.7 ***
Good	20.8	22.7	-1.8	26.7	21.1	5.6
Fair or poor	21.2	13.2	8.0 **	25.3	11.1	14.2 ***
ANY CHRONIC CONDITION ^a						
	61.7	54.2	7.6	67.7	51.6	16.1 ***
ACTIVITIES ARE LIMITED BY HEALTH PROBLEM						
	24.9	18.2	6.7	28.7	16.3	12.4 ***
FAMILY INCOME						
Less than 100% of poverty	11.4	15.6	-4.2	15.4	15.0	0.4
100-299% of poverty	37.6	24.2	13.4 ***	39.4	22.3	17.1 ***
300-499% of poverty	31.9	24.8	7.1	28.5	25.0	3.6
500% of poverty or more	19.2	35.4	-16.2 ***	16.7	37.8	-21.1 ***
INSURANCE STATUS						
ESI coverage	57.7	70.5	-12.8 **	58.6	71.6	-13.0 ***
Public and other coverage	32.4	27.7	4.6	35.4	26.4	9.0 *
Uninsured	10.0	1.8	8.2 ***	6.1	2.0	4.1 ***
SAMPLE SIZE						
	280	1,425		394	1,307	

SOURCE: 2006-2009 MASSACHUSETTS HEALTH REFORM SURVEYS

^a Includes adults who reported 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 or sugar diabetes; asthma; any other chronic or long-term health condition or health problem; or are pregnant.

* (**) (***) Significantly different from zero at the .10 (.05) (.01) level, two-tailed test.

CONCLUSION

These findings suggest that women overall, particularly women within particular population subgroups, have benefited from the 2006 Massachusetts health reform initiative. While this analysis cannot identify the particular features of the reform initiative that are contributing to the gains among women, much of the increase in coverage has been through public programs. Not only did the creation of the Commonwealth Care program extend coverage to the previously uninsured, but broad outreach efforts in the state also brought un-enrolled, eligible women into MassHealth.

Despite the strong gains in coverage among women under health reform, some women remained uninsured in fall 2009. Since many of the remaining uninsured women in the state report family incomes that would make them eligible for the MassHealth or Commonwealth Care programs, there is a continuing need for outreach and enrollment initiatives targeted at lower-income women. Further, the high levels of unmet need for care in the state suggest that there may also be a need for services that help consumers navigate insurance and provider systems. Some women, such as those with limited English-speaking ability, those with low educational attainment, or those who are newly insured, may require additional help to access appropriate providers in a timely manner. Massachusetts will need to build upon its strong outreach and enrollment efforts address the needs of these women.²⁸

Affordability of care also remains a key issue for women in Massachusetts. Women across all demographic and socioeconomic groups reported unmet need for care because of costs and problems paying medical bills. Currently, there is broad consensus in the state about the need to control health care costs and robust discussion about how best to move forward on cost containment. With health care costs in the state continuing to rise rapidly, failure to take strong action to “bend the curve” will likely result in health care costs continuing to be a burden for many women in the state.

²⁸ There are a number of outreach and enrollment efforts underway in the state, including Outreach and Enrollment Grants through the Health Care Reform Outreach and Education Unit at the Executive Office of Health and Human Services. The Blue Cross Blue Shield of Massachusetts Foundation also funds work in outreach and enrollment through its Connecting Consumers with Care program area, which supports community-based organizations, community health centers, and select hospital

programs that help low-income consumers enroll in coverage, navigate the health care system, and access providers. For information on the Connecting Consumers with Care grant program, see Connecting Consumers with Care [Website]. Boston: Blue Cross Blue Shield of Massachusetts Foundation [cited 2010 May 19]. Available from: <http://bluecrossfoundation.org/Grants/Program-Areas/Connecting-Consumers-with-Care.aspx>.

**APPENDIX EXHIBIT 1: CHARACTERISTICS OF WOMEN 18 TO 64
IN MASSACHUSETTS IN FALL 2006 AND FALL 2009**

	FALL 2006	FALL 2009	2009 - 2006 DIFFERENCE
AGE (YEARS)			
18 to 25	13.5	12.5	-1.0
26 to 34	18.2	17.6	-0.7
35 to 49	39.2	39.3	0.1
50 to 64	29.1	30.7	1.6
RACE/ETHNICITY			
White, non-Hispanic	82.1	80.2	-1.9
Non-white, non-Hispanic	12.0	12.0	-0.0
Hispanic	5.9	7.8	1.9 *
U.S. CITIZEN			
	94.1	95.8	1.7
MARITAL STATUS			
Married	58.1	56.6	-1.5
Living with partner	7.1	7.5	0.4
Divorced, separated, widowed	14.6	16.2	1.5
Never married	20.1	19.7	-0.4
PARENT OF ONE OR MORE CHILDREN UNDER 18			
	49.7	49.1	-0.6
EDUCATION			
Less than high school	4.4	4.9	0.6
High school graduate	25.3	20.5	-4.8 **
Some college	28.0	28.9	1.0
College graduate or higher	42.4	45.6	3.3
WORK STATUS			
Full-time	40.7	40.8	0.1
Part-time	30.9	26.6	-4.3 **
Not working	28.4	32.6	4.2 **
SELF-EMPLOYED			
	6.0	6.6	0.6
WORKS AT A FIRM WITH <=50 EMPLOYEES			
	18.9	14.5	-4.3 **
HEALTH STATUS			
Very good or excellent	60.9	63.3	2.3
Good	26.1	22.4	-3.7 **
Fair or poor	12.9	14.3	1.4
ANY CHRONIC CONDITION ^a			
	56.6	55.2	-1.4
ACTIVITIES ARE LIMITED BY HEALTH PROBLEM			
	18.8	19.1	0.3
FAMILY INCOME			
Less than 100% of poverty	12.3	15.0	2.7 *
100-299% of poverty	30.3	26.0	-4.2 *
300-499% of poverty	28.0	25.8	-2.2
500% of poverty or more	29.5	33.2	3.7 *
SAMPLE SIZE			
	1,874	1,705	

SOURCE: 2006-2009 MASSACHUSETTS HEALTH REFORM SURVEYS

^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 or sugar diabetes; asthma; any other chronic or long-term health condition or health problem; or are pregnant.

* (**) (***) Significantly different from zero at the .10 (.05) (.01) level, two-tailed test.

APPENDIX EXHIBIT 2: SIMPLE (UNADJUSTED) DIFFERENCES IN HEALTH INSURANCE COVERAGE AND HEALTH CARE ACCESS, USE, AND COSTS FOR WOMEN 18 TO 64 BETWEEN FALL 2006 AND FALL 2009

	FALL 2006	FALL 2009	2009 - 2006 DIFFERENCE
INSURANCE COVERAGE			
Any insurance coverage	91.1	97.1	6.0 ***
ESI coverage	68.0	68.7	0.7
Public or other coverage	23.1	28.4	5.3 **
HEALTH CARE ACCESS AND USE			
Has a usual source of care (excluding the ED)	90.0	92.8	2.8 **
Any general doctor visit in past 12 months	84.7	90.7	5.9 ***
Visit for preventive care	77.0	82.0	5.0 **
Any specialist visit in past 12 months	56.4	60.1	3.7
Any dental care visit in past 12 months	72.0	79.1	7.1 ***
Took any prescription drugs in past 12 months	62.0	64.1	2.1
Did not get needed care for any reason in past 12 months	27.4	21.2	-6.2 ***
Doctor care	7.4	6.1	-1.4
Specialist care	7.3	5.8	-1.5
Medical tests, treatment, or follow-up care	9.9	6.7	-3.2 ***
Preventive care screening	6.2	6.3	0.1
Prescription drugs	8.9	6.2	-2.7 **
Dental care	13.5	10.2	-3.3 **
Any ED visits in past 12 months	35.9	36.0	0.1
Most recent ED visit was for non-emergency condition ^a	17.4	16.5	-0.9
Share of those who used care in the past 12 months rating quality of care as very good or excellent	65.4	68.4	3.1
HEALTH CARE COSTS AND AFFORDABILITY			
Out-of-pocket health care costs over the past 12 months			
At 5% or more of family income for those less than 500% of poverty ^b	22.1	18.8	-3.3
At 10% or more of family income for those less than 500% of poverty ^b	8.7	6.5	-2.1
Had problems paying medical bills in past 12 months	22.3	22.2	-0.1
Have medical bills that are paying off over time	22.2	23.3	1.2
Had problems paying other bills in past 12 months	26.4	29.0	2.6
Did not get needed care because of costs in the past 12 months	17.9	13.6	-4.3 ***
Doctor care	5.4	3.4	-2.1 **
Specialist care	4.8	3.3	-1.6
Medical tests, treatment, or follow-up care	6.8	3.2	-3.6 ***
Preventive care screening	2.9	3.0	0.1
Prescription drugs	6.2	4.0	-2.2 **
Dental care	10.6	7.8	-2.8 **

SOURCE: 2006-2009 MASSACHUSETTS HEALTH REFORM SURVEYS (N=13,150)

Note: ED is emergency department.

^a A condition that the respondent thought could have been treated by a regular doctor if one had been available.

^b 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 500% of poverty.

* (**) (***) Significantly different from zero at the .10 (.05) (.01) level, two-tailed test.

