

Access And Affordability: An Update On Health Reform In Massachusetts, Fall 2008

Access, affordability, and coverage have improved since 2006, but rising health costs have eroded some gains in affordability of care.

by **Sharon K. Long and Paul B. Masi**

ABSTRACT: Massachusetts continues to move forward on comprehensive health reform. Uninsurance is at historically low levels, despite the recent economic downturn. Building on that coverage expansion, access to and affordability of care in the commonwealth have improved. Notwithstanding these successes, some of the early gains in reducing barriers to care and improving the affordability of care had eroded by fall 2008, reflecting trends that predate health reform in Massachusetts: constraints on provider capacity and increasing health care costs. Because these are national concerns as well, Massachusetts continues to offer lessons for national reform efforts. [*Health Affairs* 28, no. 4 (2009): w578–w587 (published online 28 May 2009; 10.1377/hlthaff.28.4.w578)]

HEALTH REFORM REMAINS A TOP PRIORITY ON THE national agenda, with many proposals drawing on Massachusetts' 2006 health reform legislation. That initiative, with its goals of near-universal health insurance coverage and improved access to affordable, high-quality health care, includes shared individual, employer, and government responsibilities. Key elements include Medicaid expansions (called MassHealth), subsidized private insurance coverage (called Commonwealth Care, or CommCare), a new purchasing pool (called Commonwealth Choice, or CommChoice), required actions for employers, and an individual mandate.¹ By summer 2008 the uninsurance rate among all residents in Massachusetts was estimated to be down to 2.6 percent.²

Although much is known about the initial impacts of reform in Massachusetts, the initiative continues to evolve.³ Some key components have been put in place only recently, and others have been modified over time.⁴ Drawing lessons from Massachusetts' experiences requires examining its reform initiative over time.

This paper provides an update as of fall 2008 on health reform in Massachusetts as it affected working-age adults—the primary target population of the reform

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initiative. The high levels of insurance coverage in the state have been documented elsewhere.⁵ The focus here is on the impacts of health reform on access to and affordability of care for residents of the state.

Study Data And Methods

■ **Data.** The study used three rounds of interviews with adults ages 18–64, conducted in fall 2006 (N = 3,010), just prior to the implementation of many of the key elements of reform; fall 2007 (N = 2,938); and fall 2008 (N = 4,041). The surveys, described elsewhere, collected information on insurance status, access to care, out-of-pocket health spending, medical debt, and more general financial problems.⁶

■ **Methods.** Determining the effect of health reform in Massachusetts requires comparing the outcomes under reform (for example, access to care) to the outcomes that would have occurred in the absence of reform. This study compares the outcomes for a cross-sectional sample of adults in periods following the implementation of health reform (fall 2007 and 2008) to the outcomes for a similar cross-sectional sample of adults in fall 2006.⁷ Under this pre-post framework, differences between the pre- and post-implementation periods are attributed to the state's reform efforts. An important limitation of this model is that other changes over the time period that also affected the outcomes of interest will be captured in the estimates, confounding the estimates of the reform's impacts.

An analysis using national data for 2006 and 2007 from the Current Population Survey (CPS) found that earlier pre-post estimates of the impacts of health reform were not affected by such confounding factors.⁸ However, economic trends may be more of an issue here, because the Massachusetts economy had slowed by fall 2008: the share of working-age adults employed in October (the first month of the field period for the surveys) was 64.0 percent in 2006, 63.7 percent in 2007, and 62.6 percent in 2008.⁹ Thus, the estimates reported here likely reflect the effects of both health reform and the early phase of the recent economic downturn.¹⁰ Unfortunately, the analyses needed to disentangle the effects of health reform from those of the recession require data that will not be available until late 2009 and 2010.

An economic downturn would be expected to lead to a drop in health insurance coverage (as unemployment increased and people lost employer-sponsored coverage) and, as a result, poorer access to health care, all else equal.¹¹ In fall 2008 there was no evidence of a decline in insurance coverage in the state. Thus, any early effects of the recession were not large enough to offset the gains in coverage that had been achieved under health reform.

We report estimates based on multivariate regression models that control for characteristics of individuals and their family members and for characteristics of the local health care market and economy in each year. The analysis sample was limited to observations with complete data for the regression models; 3.2 percent of the cases were dropped because of missing data for one or more explanatory variables. Because the outcome measures we examined were binary variables (for

example, any doctor visit), probit regression models were estimated, controlling for the complex design of the sample using the survey estimation procedures (svy) in Stata 10. In presenting findings, we report the regression-adjusted impact estimates in the text (these estimates are different from simple differences calculated by subtraction); both unadjusted estimates (simple differences) and regression-adjusted estimates are reported in appendix exhibits online.¹²

Study Findings

■ **Access to and use of health care.** Consistent with the sustained increase in coverage in Massachusetts, there also have been sustained improvements in access to care (Exhibit 1).¹³ Under health reform, working-age adults (ages 18–64) in Massachusetts were more likely than before to report that they had a usual place to go when sick or in need of advice about their health, a measure of continuity of health care (up 4.5 percentage points between fall 2006 and fall 2008 [these are regression-adjusted estimates; see Appendix Exhibit 1]). They were also more likely than before to have had doctor visits in the past twelve months: the likelihood of having any doctor visit rose 5.1 percentage points and multiple doctor visits, 4.9 percentage points. Similarly, the likelihood of having a preventive care visit (up 6.0 percentage points) and a dental care visit (up 7.6 percentage points) rose by fall 2008.

Although there were gains in health care use in the first year (between fall 2006 and fall 2007), many of the gains in doctor visits occurred in the second year (between fall 2007 and fall 2008), when people were more likely to have continuous insurance coverage. During the second period, there were significant increases in the likelihood of any doctor visit in the past twelve months (up 3.9 percentage points) and multiple doctor visits (up 6.2 percentage points).

The gains in access under health reform were strongest for lower-income adults (those with family incomes less than 300 percent of the federal poverty level); however, higher-income adults were also more likely to report doctor visits in the past twelve months (up 4.9 percentage points) and visits for preventive care (up 5.4 percentage points) in fall 2008 than in fall 2006 (data not shown).

These estimates are for all adults in Massachusetts, not just those who gained coverage under health reform. Although we would expect most of the gains in access to have been among those who obtained coverage, gains in access were also reported by those who were continuously insured during the year, which suggests that the improvements in access to care reflect both gains from having coverage and improvements in existing insurance coverage under health reform (data not shown). Further, the improvements in existing coverage affected both those with public coverage (who reported gains in dental care use—consistent with the expansion of dental coverage under MassHealth) and those with private coverage (who reported gains in the use of preventive care—consistent with the requirement that preventive care visits be covered without a deductible under the “minimum creditable coverage” standards; data not shown).

EXHIBIT 1
Access To And Use Of Health Care Under Health Reform In Massachusetts For Adults
Ages 18–64: All Adults And By Family Income, 2006–2008

All adults (N = 9,669)	Fall 2006	Fall 2007	Fall 2008
Has a usual source of care (excluding ED)	86.4%	88.7%*	91.3%***
Any doctor visit in past 12 months	80.0	81.5	83.9***#
Preventive care	70.2	73.5*	76.0***
Multiple visits	65.7	64.2	69.1***##
Any visit to a specialist in past 12 months	50.6	48.4	53.2
Any dental care visit in past 12 months	67.8	72.0**	75.5***
Took any Rx drugs in past 12 months	55.2	54.3	59.3*
Did not get needed care for any reason in past 12 months	25.4	21.0**	21.6
Doctor care	8.1	5.8*	6.6
Specialist care	7.1	4.0***	7.0##
Medical tests, treatment, follow-up care	9.4	6.2***	7.8##
Preventive care screening	6.9	5.5	5.7*
Rx drugs	8.1	5.7**	6.2**
Dental care	12.7	9.3**	10.9
Any ED visits in past 12 months	34.2	35.1	33.5
Most recent ED visit was for nonemergency ^a	15.9	15.6	15.2
Adults with family income less than 300% of poverty (n = 4,638)			
Has a usual source of care (excluding ED)	79.3	83.2	86.2***
Any doctor visit in past 12 months	75.2	76.6	78.7*
Preventive care	64.7	70.3*	70.7**
Multiple visits	61.8	59.9	66.0*
Any visit to a specialist in past 12 months	46.2	42.2	49.7
Any dental care visit in past 12 months	48.9	58.5***	63.0***
Took any Rx drugs in past 12 months	55.5	54.0	59.2
Did not get needed care for any reason in past 12 months	35.3	29.5	31.7
Doctor care	13.6	9.5	11.7
Specialist care	11.2	6.9**	12.1
Medical tests, treatment, follow-up care	14.4	9.7**	12.9##
Preventive care screening	8.3	6.2	9.5
Rx drugs	12.5	9.5	10.1**
Dental care	20.8	13.6***	16.8
Any ED visits in past 12 months	46.0	49.4	47.0*
Most recent ED visit was for nonemergency ^a	23.2	24.0	22.9

SOURCE: Massachusetts Health Reform Surveys, 2006, 2007, and 2008.

NOTES: See Appendix Exhibit 1 for information on the regression model (available online at <http://content.healthaffairs.org/cgi/content/full/hlthaff.28.4.w578/DC2>). ED is emergency department.

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

* (**) (***) Regression-adjusted estimate of difference from fall 2006 was significantly different from zero at the 0.10 (0.05) (0.01) level, two-tailed test.

(##) Regression-adjusted estimate of difference from fall 2007 was significantly different from zero at the 0.10 (0.05) level, two-tailed test.

■ **Barriers to care.** Paradoxically, the increases in health care use from fall 2007 to fall 2008 were coupled with indications that some adults were having more difficulty obtaining care in fall 2008 than in fall 2007. The shares of adults who reported that they did not get care that they thought they needed in the past twelve months tended to increase between fall 2007 and fall 2008, after having declined between fall 2006 and fall 2007 (Exhibit 1).¹⁴ Although those increases were statistically significant for only a few types of care (specialist care and medical tests, treatment, or

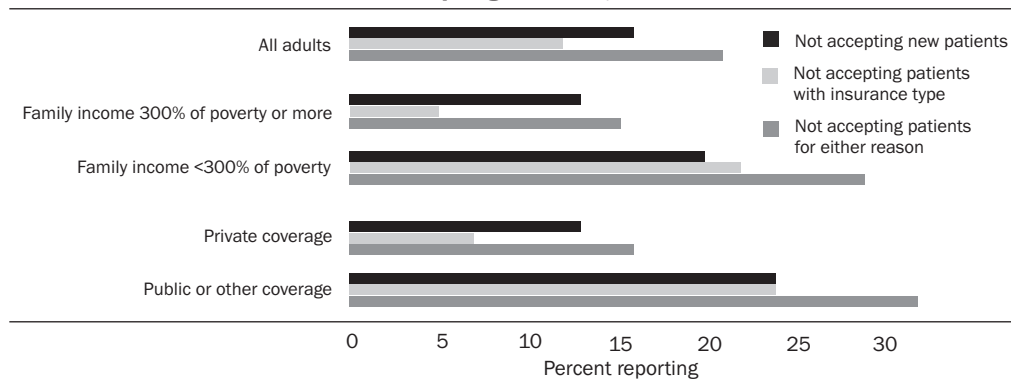
follow-up care), they were large enough to offset some of the earlier reductions under health reform. By fall 2008, the reductions in unmet need under health reform were limited to lower levels of unmet need for preventive care screening and prescription drugs; unmet need for other care had moved closer to pre-reform levels.

The increased demand for care between fall 2007 and fall 2008 (as indicated by the simultaneous increases in use and unmet need for some types of care) may reflect several factors, including attempts by newly insured adults to obtain care for the first time, attempts by adults with newly covered benefits to access those benefits, and, as a result of both of those factors, increased demand for follow-up care based on initial visits. To the extent that these factors are driving the increased demand, there would be greater stress on the supply of providers in the early period under health reform, as more people sought and used health care in a short period of time. However, under a system in which people have continuous coverage (as is more likely in Massachusetts under health reform), we would expect ongoing demand for care to stabilize between the lower levels of the pre-reform period and the higher levels of this transition period.

To better understand barriers to care in Massachusetts in fall 2008, the 2008 survey asked about problems trying to obtain health care during the past twelve months (Exhibit 2). About one in five adults in Massachusetts reported that they were told that a doctor’s office or clinic was not accepting patients with their type of coverage or was not accepting any new patients. These problems were reported for both primary and specialty care (66 percent and 56 percent of those reporting such problems, respectively; data not shown).

Difficulties finding a provider were much more common for lower-income than higher-income adults (29 percent/15 percent) and for adults with public and other coverage than those with private coverage (32 percent/16 percent). Adults with

EXHIBIT 2
Percentage Of Adults Ages 18–64 In Massachusetts Reporting Difficulty Obtaining Care Because Provider Was Not Accepting Patients, 2008



SOURCE: Massachusetts Health Reform Survey, 2008.

NOTE: N = 4,041.

public and other coverage were much more likely than those with private coverage to be told that the provider was not taking their type of insurance (24 percent/7 percent) and to face closed panels (24 percent/13 percent).

These differences likely reflect multiple factors, including lower provider reimbursement rates under the public programs and access to a limited set of providers under the four health plans that were serving public enrollees during this period. The constraints imposed by the latter were likely exacerbated by the rapid increase in coverage under health reform in 2007, which was largely concentrated within public programs and, therefore, within the networks of the four plans.

Reported problems finding a provider in fall 2008 varied across the state, with more problems reported in the west (26 percent) and southeast (23 percent) regions, as compared to the Boston (20 percent), central (20 percent), metro west (19 percent), and northeast (17 percent) regions.¹⁵ Reported difficulties finding a provider tended to be more common in areas with lower provider supply, especially in areas located farther from Boston, with its concentration of providers.¹⁶

Consistent with the reported difficulties in obtaining community-based care, we saw no change from pre-reform levels in emergency department (ED) use for nonemergency conditions (that is, conditions that the respondent felt could have been treated in the community if a provider had been available; Exhibit 1). Such use remained as high in fall 2008 as it was in fall 2006, at 15 percent for all adults and 23 percent for lower-income adults.¹⁷ Thus, the changes to date under health reform have not translated into reductions in ED use for nonemergency conditions. When asked the reasons for ED visits for nonemergencies in fall 2008, 54.9 percent of adults reported going because they were unable to get an appointment as soon as one was needed (data not shown).

■ **Financial burden of health care.** In the first year under health reform, the financial burden of health care on individuals dropped significantly, particularly for lower-income adults. By fall 2008, however, some of those gains in affordability had eroded: the shares reporting problems paying medical bills and problems with medical debt they were paying off over time moved back toward the fall 2006 levels for all adults and for lower-income adults (Exhibit 3).¹⁸ Furthermore, although there continued to be reductions in the shares of adults overall who were spending high shares of family income out of pocket for health care between fall 2006 and fall 2008, that pattern did not hold for lower-income adults.¹⁹ Among lower-income adults, the decline in the share spending 5 percent or more of family income out of pocket continued through fall 2008 (down seven percentage points from fall 2006 [these are regression-adjusted estimates; see Appendix Exhibit 3]), but the share with out-of-pocket spending of 10 percent or more of family income in fall 2008 was no longer significantly different from the fall 2006 level.

Consistent with the evidence of some increases in the burden of health care costs in Massachusetts between fall 2007 and fall 2008, there were also some increases in unmet need for care because of costs over that period. In particular, un-

EXHIBIT 3**Health Care Costs Under Health Reform For Adults Ages 18–64 In Massachusetts: All Adults And By Family Income, 2006–2008**

All adults	Fall 2006	Fall 2007	Fall 2008
Out-of-pocket health care costs over past 12 months			
5% or more of family income for those <500% of poverty	21.8%	17.0%**	17.7%**
10% or more of family income for those <500% of poverty	8.9	5.3***	6.6**
Had problems paying medical bills in past 12 months	20.4	16.5**	17.9
Have medical bills that are paying off over time	20.8	18.1*	19.8
Had problems paying other bills in past 12 months	24.7	23.3	23.7
Did not get needed care because of costs in past 12 months	17.0	11.2***	11.4***
Doctor care	5.8	3.0***	2.7***
Specialist care	5.0	2.1***	3.0#
Medical tests, treatment, follow-up care	6.3	2.3***	3.5*##
Preventive care screening	3.5	1.9***	2.5**
Rx drugs	5.6	3.5***	3.6*
Dental care	10.3	6.5***	7.5**
Adults with family income less than 300% of poverty			
Out-of-pocket health care costs over past 12 months			
5% or more of family income	25.9	18.5***	19.6**
10% or more of family income	12.7	7.2***	9.0
Had problems paying medical bills in past 12 months	32.1	23.8***	28.5
Have medical bills that are paying off over time	26.8	22.7**	25.9##
Had problems paying other bills in past 12 months	36.2	35.3	38.0
Did not get needed care because of costs in past 12 months	27.3	16.8***	18.1***
Doctor care	11.3	4.8***	5.1***
Specialist care	8.6	3.6***	5.7##
Medical tests, treatment, follow-up care	11.3	4.4***	6.4**
Preventive care screening	5.7	2.8***	4.7*
Rx drugs	10.0	6.1**	5.7***
Dental care	17.4	9.3***	11.5**

SOURCE: Massachusetts Health Reform Surveys, 2006, 2007, and 2008.

NOTES: See Appendix Exhibit 3 for information on the regression model (online at <http://content.healthaffairs.org/cgi/content/full/hlthaff.28.4.w578/DC2>). Because of the way the income information is collected in the survey, the measure of out-of-pocket spending relative to family income cannot be constructed for adults with family income above 500% of poverty. Sample sizes are available in Exhibit 1.

* (**) (***) Regression-adjusted estimate of difference from fall 2006 was significantly different from zero at the 0.10 (0.05) (0.01) level, two-tailed test.

(##) Regression-adjusted estimate of difference from fall 2007 was significantly different from zero at the 0.10 (0.05) level, two-tailed test.

met need for specialist care and for medical tests, treatment, or follow-up care recommended by a doctor were significantly higher in fall 2008 than in fall 2007 for all adults. The net result is that although unmet need because of costs remains relatively low in the state, some of the reductions under health reform in fall 2006 had been offset by increases between fall 2007 and fall 2008.

Discussion

Roughly two years after Massachusetts began implementing its ambitious health reform initiative, there are sustained signs of success. Uninsurance is at historically low levels, and there have been widespread improvements in access to health care for working-age adults. Those adults are more likely to have a usual

source of care and to have had doctor visits, preventive care visits, and dental care visits under health reform than before. These gains in access reflect both increases in insurance coverage and improvements in the coverage that is available.

There have also been gains in the affordability of health care for adults in Massachusetts under health reform. However, unlike the sustained gains in insurance coverage and access, some of the early gains in the affordability of health care had eroded by fall 2008, as health care costs continued to increase—as they have in the nation as a whole—potentially jeopardizing the gains under health reform.

In August 2008 Gov. Deval Patrick signed into law An Act to Promote Cost Containment, Transparency, and Efficiency in the Delivery of Quality Health Care, which seeks to contain health care costs as well as to improve access to and quality of care.²⁰ The current proposal being developed would undertake fundamental reform of the health care payment system, moving away from fee-for-service to a global payment system that emphasizes care coordination and collaboration.

The proposed systematic change in the payment system in Massachusetts, by emphasizing coordination of care, offers the potential for addressing problems with access to care and inefficiency in care delivery in Massachusetts, both of which predate health reform. In this study we found that adults in Massachusetts, although more likely to have health care visits under health reform than before, reported difficulty finding providers who would see them and difficulty obtaining timely appointments for care. Problems obtaining care occurred across all income levels but were concentrated among lower-income adults, particularly those enrolled in public programs. These findings are consistent with an ongoing survey of physicians in Massachusetts that found the shares of internists accepting new patients and MassHealth patients dropped under health reform, while wait times for appointments increased.²¹ Similarly, some community health centers reported longer waits for appointments under health reform.²²

Difficulty obtaining care in the community was reported to be an important factor in the use of ED care for nonemergency conditions in Massachusetts in fall 2008. Such use has not increased under health reform, but the high levels suggest that inefficiency persists in the care delivery system. Addressing such use, whether through payment reform or other measures, should translate into improvements in the quality of care for individuals and cost savings for individuals, health plans, and state programs.

■ **Limitations of the study.** This study provides interim estimates of the impacts of health reform in Massachusetts. Most notably, these estimates are for the time period before the larger penalty for not complying with the individual mandate went into effect, before small businesses gained access to CommChoice, and before the “minimum creditable coverage” standards for insurance coverage went into effect. The estimates also predate any efforts at reforming health care payments, which is essential for the long-run sustainability of health reform.

Further, as noted above, the study design assigned all changes over time to the

impacts of health reform. Separating the effects of health reform from those of the recession requires making use of data from national sources that will not be available until late 2009 and 2010. However, the data available now suggest that the effects of the recession were relatively limited in Massachusetts in fall 2008.

Finally, we relied on survey data, which are subject to several types of error (coverage error, sampling error, measurement error, and nonresponse error).

■ **Lessons for national reform.** Two key lessons can be drawn from the most recent year of health reform in Massachusetts. First, although major expansions in coverage can be achieved without addressing health care costs, cost pressures have the potential to undermine the gains under reform. With its current focus on health care costs, Massachusetts once again looks to be at the forefront of developing innovative strategies that will provide guidance to national reform efforts.

Second, in preparing for health reform at the national level, it will be important to ensure that the care delivery systems in communities across the country are ready to support the planned expansion in coverage. As was true in Massachusetts, it is likely that existing constraints on provider supply across the country would be exacerbated by an influx of newly insured people. There will no doubt be much debate as to whether this means increasing the supply of physicians, as some argue, or more fundamental changes in the health care system that address the organization and delivery of health care, as others contend.²³

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NOTES

1. See J.E. McDonough et al. "The Third Wave of Massachusetts Health Care Access Reform," *Health Affairs* 25 (2006): w420–w431 (published online 14 September 2006; 10.1377/hlthaff.25.w420).
2. Massachusetts Division of Health Care Finance and Policy, *Health Care in Massachusetts: Key Indicators*, February 2009, http://www.mass.gov/Eoehhs2/docs/dhcfp/r/pubs/09/key_indicators_02-09.pdf (accessed 12 May 2009).
3. S.K. Long, "On the Road to Universal Coverage: Impacts of Reform in Massachusetts at One Year," *Health Affairs* 27, no. 4 (2008): w270–w284 (published online 3 June 2008; 10.1377/hlthaff.27.4.w270); and S.K. Long, K. Stockley, and A. Yemane, "Another Look at the Impacts of Health Reform in Massachusetts: Evidence Using New Data and a Stronger Model," *American Economic Review* 99, no. 2 (2009): 508–511.
4. Most notably, the penalty for failing to comply with the individual mandate was implemented in 2008 based on coverage as of 31 December 2007. The penalty in 2008 was relatively small, and a larger penalty in 2009 was based on coverage for all of 2008. Components modified over time include increases in premiums and cost sharing under CommCare and CommChoice, along with increases in the "affordability schedule" that determines the amount an individual is expected to be able to pay for health insurance under the individual mandate. Further, as was true in the rest of the country, health care costs and health insurance premiums in Massachusetts continued to increase during the 2007–2008 period.

5. See MA DHCFP, *Health Care in Massachusetts*.
6. See Urban Institute and International Communications Research, *The Massachusetts Health Reform Survey: Round 1—Fall 2006, Round 2—Fall 2007, Round 3—Fall 2008*, 6 April 2009, http://www.urban.org/UploadedPDF/411649_mass_reform_survey.pdf (accessed 12 May 2009).
7. The fall 2006 survey was fielded as the CommCare program was beginning for adults with family incomes under 100 percent of poverty; however, enrollment started slowly.
8. Long et al., “Another Look.”
9. Data available through query at Massachusetts Labor and Workforce Development, “Labor Force and Unemployment Data,” http://lmi2.detma.org/Lmi/lmi_lur_a.asp (accessed 6 April 2009). The Federal Reserve’s “Beige Book,” which provides an assessment of local economic conditions, also reports that the state’s economy had slowed by the end of 2008. See Federal Reserve Board, “Summary of Commentary on Current Economic Conditions by Federal Reserve Districts,” December 2008, <http://www.federalreserve.gov/fomc/beigebook/2008/20081015/fullreport20081015.pdf> (accessed 9 March 2009).
10. As in the U.S. as a whole, the impact of the recession in Massachusetts was felt most strongly after 2008.
11. Although some would obtain other coverage (for example, coverage through a spouse or public coverage), others would become uninsured.
12. Appendix tables are available at <http://content.healthaffairs.org/cgi/content/full/hlthaff.28.4.w578/DC2>.
13. Exhibit 1 shows the rates for each year based on the survey. Appendix Exhibit 1 (online; *ibid.*) provides unadjusted impact estimates (simple differences) and regression-adjusted impact estimates. All differences reported in the text are regression-adjusted estimates and thus differ slightly from the figures in Exhibit 1.
14. This is care that the individual thought he or she needed. It might or might not be medically necessary.
15. For a map, see online Appendix Exhibit 2, as in Note 12. The comparison controls for differences in age, gender, and health and disability status across the regions.
16. The number of primary care physicians per 100,000 people ranged from 60 in the southeast to 251 in the Boston region in 2006, with the average for U.S. counties at 81 (86 in metropolitan counties and 53 in nonmetropolitan counties). Data from the 2007 Area Resource File, Health Resources and Services Administration.
17. High levels of emergency department use overall and for nonemergency conditions are not unique to Massachusetts. See S.R. Pitts et al., “National Hospital Ambulatory Medical Care Survey: 2006 Emergency Department Summary,” National Health Statistics Report no. 7, 6 August 2008, <http://www.cdc.gov/nchs/data/nhsr/nhsr007.pdf> (accessed 12 May 2009).
18. Exhibit 3 shows the rates for each year based on the survey. Appendix Exhibit 3 provides the unadjusted and regression-adjusted impact estimates. The reported changes in the affordability of health care may capture both actual changes and changes in consumers’ perceptions of their economic circumstances in an economic downturn. However, the finding that there were no changes in the share of adults reporting problems paying other (non-health care) bills suggests that the increased problems with medical costs are not due to changes in perceptions. Appendix Exhibit 3 is available online as in Note 12.
19. Because of the way data on family income are collected in the survey, the measure of out-of-pocket health care costs relative to family income cannot be constructed for adults with family incomes of 500 percent of poverty or more.
20. Special Commission on the Health Care Payment System, “Draft Principles for Health Care Payment Reform,” Draft, 16 January 2009; Amended, 11 March 2009, http://www.mass.gov/Eeohhs2/docs/dhcfp/pc/2009_03-11_principles_healthcare_payment_reform.pdf (accessed 28 March 2009).
21. Massachusetts Medical Society, *Physician Workforce Study, 2008*, <http://www.massmed.org/AM/Template.cfm?Section=Home&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=23166> (accessed 16 March 2009).
22. L. Ku et al., “How Is the Primary Care Safety Net Faring in Massachusetts? Community Health Centers in the Midst of Health Reform,” March 2009, <http://www.kff.org/healthreform/upload/7878.pdf> (accessed 28 March 2009).
23. For two perspectives on this issue, see J.K. Iglehart, “Grassroots Activism and the Pursuit of an Expanded Physician Supply,” *New England Journal of Medicine* 358, no. 16 (2008): 1741–1749; and D.C. Goodman and E.S. Fisher, “Physician Workforce Crisis? Wrong Diagnosis, Wrong Prescription,” *New England Journal of Medicine* 358, no. 16 (2008): 1658–1661.