



New England Research Institutes

A SERENDIPITOUS EVALUATION OF MANDATORY HEALTH INSURANCE IN MASSACHUSETTS

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1. Introduction:

It is estimated some 49.5 million American adults under the age of 65 (28%) have no health insurance.⁽¹⁾ An additional 42.5 million (24%) people are underinsured - they are generally older, sicker and make greater use of the health care system.⁽²⁾

In 2006, under pressure from the federal government, Massachusetts passed a law which: (a) expanded Medicaid HMOs to cover the poor (free of charge) and near poor (with partial subsidies); and (b) established an "individual mandate," requiring every uninsured person with incomes above the poverty level (about \$10,000 annual income for an individual, \$20,000 for a family of four) to purchase health insurance. This mandate is enforced through the income tax system.⁽³⁾ This Massachusetts approach to universal coverage has been lauded as a national model and advanced during recent discussions of health care reform in the US.

Before mandating health insurance for the entire US population it would be prudent to enquire if the "Massachusetts Experiment" has actually worked. Has it produced the desired changes? Has it achieved universal coverage in Massachusetts? Who has gained, lost or still lacks health insurance? Has mandatory health insurance changed health care utilization? Has it increased the use of medications for major health conditions diagnosed before the introduction of the program? Finally, has it reduced health care disparities (e.g., between men and women and race/ethnic groups) known to exist prior to introduction of mandatory health insurance?

2. Methods:

The Boston Area Community Health (BACH) survey has been underway since 2002, prior to the introduction of mandatory health insurance in Massachusetts in 2007. This ongoing inner-city study of Boston residents comprises a large number of randomly sampled adults (30-79 years of age at baseline) and includes both men and women and roughly equal numbers of black, Hispanic and white individuals. The complex methods used to obtain this representative sample have been published elsewhere.⁽⁴⁾ From 2002 until 2005 in-home interviews were conducted with some 5,500 people (the baseline study) and detailed information was collected on their health status, life styles, health care insurance and the use of health services. Around 50 papers have reported scientific findings in peer reviewed journals.⁽⁵⁾ Starting in 2006, BACH participants were re-contacted and interviewed again (the follow-up study). This on-going random sample survey presents a serendipitous opportunity to evaluate the impact of mandatory health insurance in the Boston area. Data are available on the same 2564 individuals, interviewed both before July 2005 and after July 2007 (when mandatory health insurance became law) and who still lived in Massachusetts.⁽⁵⁾

Figure 1: The BACH Survey was Conducted Before and After Introduction of Mandatory Health Insurance

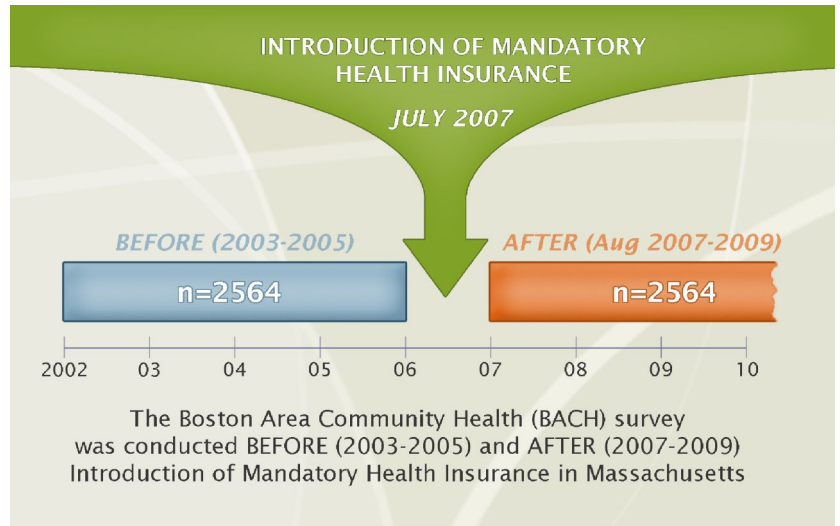
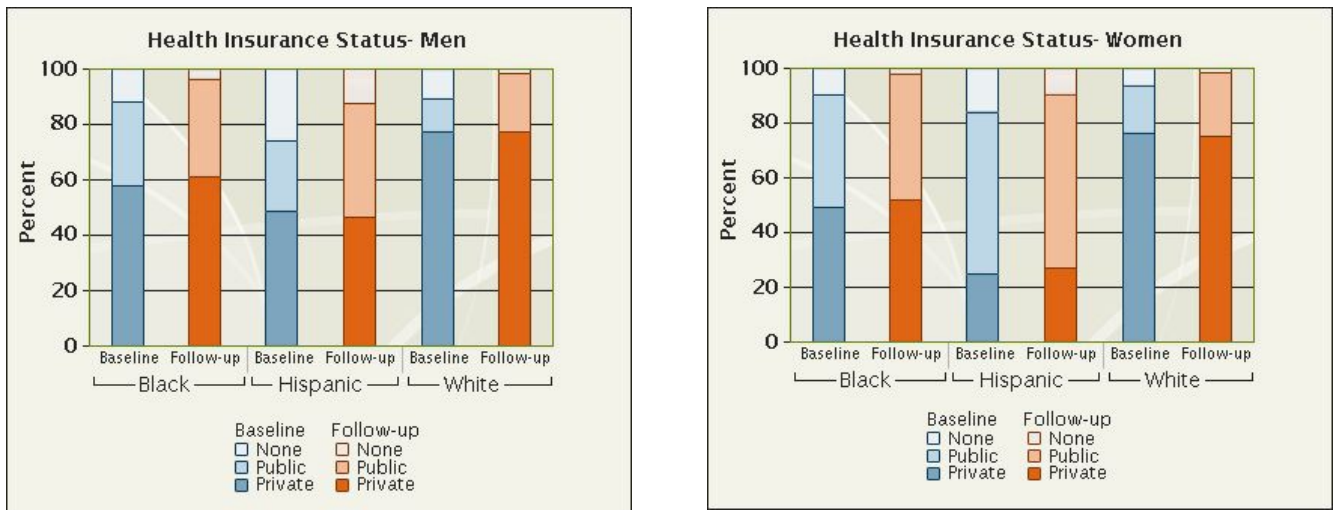


Figure 1 shows how the ongoing BACH study permits a before and after (2007) comparison of the effects of the introduction of mandatory health insurance in Massachusetts on people in the Boston area.

3. What Does Mandating Health Insurance Do to Coverage?

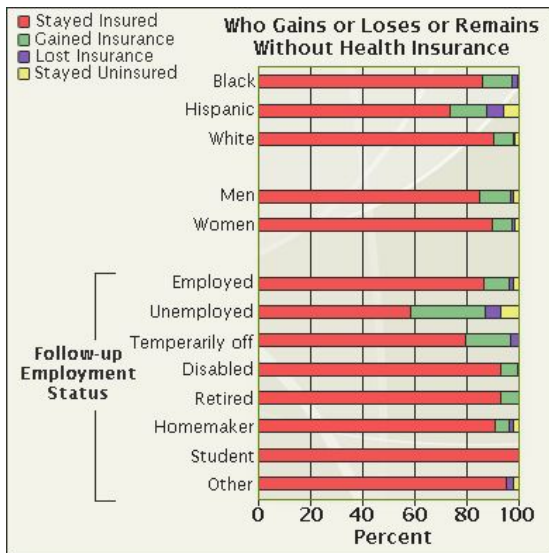
Figure 2. How has Mandatory Health Insurance Affected Who has Different Types of Health Insurance?



- Mandatory health insurance has increased the proportion of the population covered by health insurance.

- Mandatory health insurance has NOT increased the proportion of the population with private health insurance. The increase in coverage occurs in the groups with public insurance (which includes the subsidized state plans).

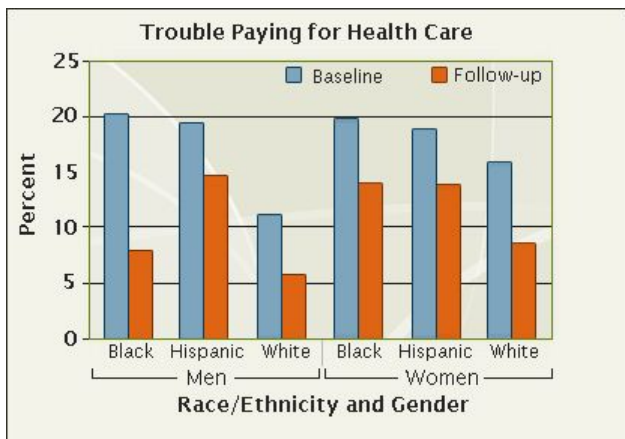
Figure 3. Who gains or loses or remains without health insurance following mandatory health insurance?



- Hispanic men and women experienced the greatest gains in any health insurance coverage, following introduction of mandatory health insurance. However, they are still least likely to have health insurance of any kind (15.3% gained health insurance and 10.9% are still uninsured).

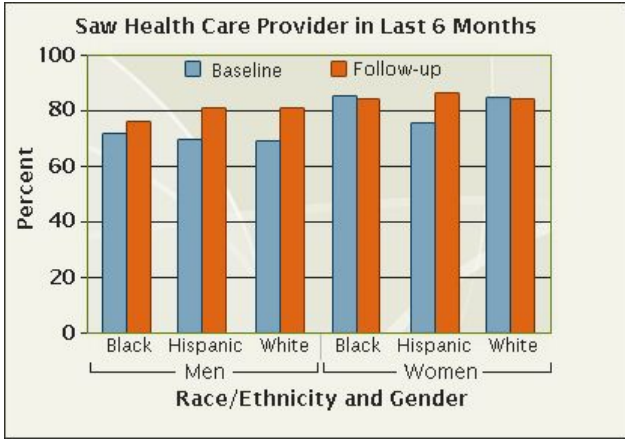
4. How Does Mandatory Health Insurance Affect the Use of Health Care?

Figure 4. Does Mandatory Health Insurance Affect the Proportion of People Having Trouble Paying for Health Care?



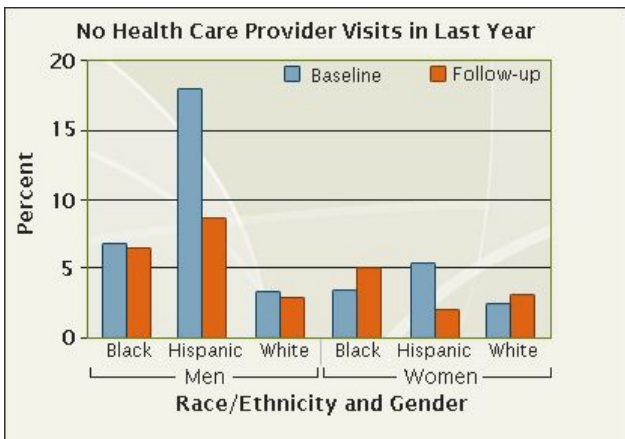
- Mandatory health insurance substantially reduces the proportion of people who report having trouble paying for health care.

Figure 5. Does Mandatory Health Insurance Affect Visits to a Health Care Provider in Last 6 Months?



- All groups of men (black, Hispanic and white) and Hispanic women were more likely to have reported that they visited a health care provider in the past 6 months.

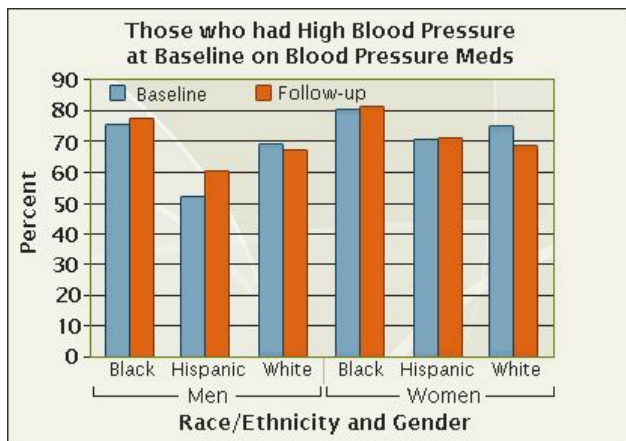
Figure 6. Does Mandatory Health Insurance Affect the Proportion of People Not Visiting a Health Care Provider in the Last Year?



- Before mandatory health insurance, Hispanics in the Boston area were much less likely to have visited a health care provider in the prior year. This proportion is more than halved following introduction of mandatory health insurance.

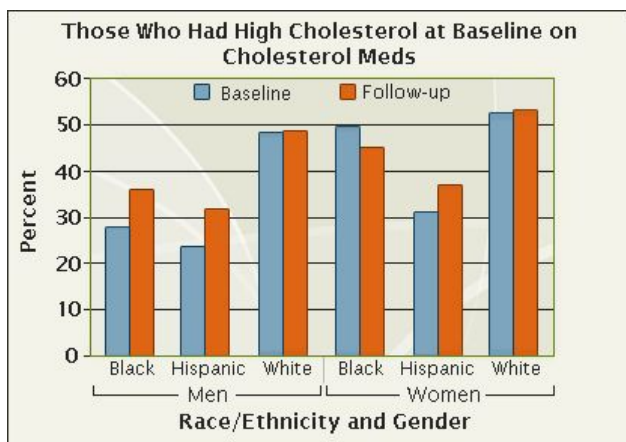
5. Does mandatory health insurance affect use of prescription drugs for several major conditions and self reported health status?

Figure 7. Does Mandatory Health Insurance Change the Use of Medications for High Blood Pressure?



- Following the introduction of mandatory health insurance, Hispanic men are more likely to be taking medications for their high blood pressure.

Figure 8. Does Mandatory Health Insurance Change the Use of Cholesterol Lowering Medications?



- Following introduction of mandatory health insurance, minority men and Hispanic women are more likely to be taking medications for high cholesterol levels.

Conclusions:

Mandatory health insurance in Massachusetts has achieved its principal goal—to increase the proportion of the population with health insurance coverage. This increase occurs as a result of the public plans, not private health insurance. While Hispanics gained the most in coverage as a result of mandatory health insurance, they remain the least likely to have health insurance. This may reflect the undocumented status of some BACH subjects and resulting unemployment. Mandatory health insurance appears to have increased health care utilization, lessened the difficulty some people have in paying for health care and increased the use of medications for

several health problems. Mandatory health insurance in Massachusetts has reduced, but still has not eliminated, pre-existing health care disparities.

The ongoing BACH study provides a unique opportunity to assess the impact of mandatory health insurance in Massachusetts on a range of health care outcomes. Since our evaluation is serendipitous it is, necessarily, imperfect. It would have been preferable to have concurrent measures from a demographically similar state without mandatory health insurance for comparison. Despite this limitation our serendipitous evaluation has several advantages: • it cost efficiently uses a large, community based random sample, which appears to be representative; • it includes adequate numbers of men and women and equivalent numbers of black, Hispanic and white participants; • it covers a broad age range; and • includes many different types of measures.

References and Notes

1. http://www.everybodyinnobodyout.org/FAQ/dat_underins.htm.
2. Link C.L. & McKinlay J.B. Only Half the Problem is being addressed: Underinsurance is as Big a Problem as Uninsurance. Forthcoming, *International Journal of Health Services*, 2010.
3. Himmelstein D.U. and Woolhandler S. Massachusetts' approach to universal coverage: High hopes and faculty economic logic. *International Journal of Health Services*, Vol. 37(2):251-257, 2007.
4. McKinlay JB, Link CL. Measuring the urologic iceberg: Design and implementation of the Boston Area Community Health (BACH) Survey. *European Urology*. 2007;52(2):389-96. PMID:2020848.
5. A list of all publications from the Boston Area Community Health (BACH) Study are available on-line at:
http://neriscience.com/web/MultiPiecePage.asp_Q_PageID_E_129_A_PageName_E_Epiproject1.
6. This analysis used data from 2,564 people who completed both before (2003-2005) and after (2007-2009) interviews, and who lived in Massachusetts at the time of the follow-up (after) interview. Baseline weights are used to reflect the complex sampling scheme and to be representative of the Boston 2000 population.

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