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Original article

Has Massachusetts health care reform worked for the working poor? Results from an analysis of opportunity

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ABSTRACT

Purpose: Health care reform was introduced in Massachusetts (MA) in 2006 and serves as a model for what was subsequently introduced nationally as the Patient Protection and Affordable Care Act. The Boston Area Community Health survey collected data before (2002–2005) and after (2006–2010) introduction of the MA health insurance mandate, providing a unique opportunity to assess its effects in a large, epidemiologic cohort.

Methods: We report on the apparent effects of the mandate on the same participants over time, focusing specifically on the vulnerable working poor (WP). We evaluated differences in subpopulations of interest at pre- and post-reform periods to explore whether MA health care reform resulted in an overall gain in insurance coverage.

Results: MA health care reform was associated with net gains in health insurance coverage overall and among the subgroups studied. Our findings suggest that despite being targeted by health care reform legislation, the WP in MA continue to report lower rates of insurance coverage compared with both the nonworking poor and the not poor.

Conclusions: MA health care reform legislation, including the expansion of Medicaid, resulted in substantial overall gains in coverage. Disparities in insurance coverage persist among some subgroups following health care reform implementation in MA. These results have important implications for health services researchers and policy makers, particularly in light of the ongoing implementation of the Patient Protection and Affordable Care Act.

Introduction

In 2006, Massachusetts enacted a law extending health insurance coverage to nearly all state residents through expansion of public insurance programs and subsidized private insurance for residents earning 300% or less of the federal poverty level [1]. The impact of this legislation has been closely watched as an indicator of the potential success of the 2010 federally enacted Patient Protection and Affordable Care Act (ACA) [2]. Previous examinations of the effects of the MA law have confirmed that the policy resulted in substantially higher health insurance coverage and improved access to care [3–9]. However, costs associated with maintaining insurance coverage and use of health services continue to be an issue for low-income MA adults, resulting in unstable coverage and persistently lower rates of preventive services use [3,10].

The MA reform law both expanded the MassHealth program (the MA Medicaid program) and created the Commonwealth Care system, which provides no or low-cost insurance for those who meet specific income thresholds [11]. Through these initiatives, the law sought to allow eligible poor adults to purchase affordable, low-cost insurance despite barriers to coverage [10,12]. Despite substantial uptake of these programs, a significant number of low-income MA adults remain uninsured as of mid-2011 [13,14]. Those remaining uninsured are largely employed but lack access to employer-sponsored insurance (ESI). Among this group, as many as 80% are considered “working poor” (WP) (those in the work force whose income falls below federal poverty levels) and, therefore, qualify for subsidized insurance. However, at least a third of the uninsured WP report being unable to find affordable insurance coverage [10].

In 2010, 10.5 million individuals were classified by the U.S. Department of Labor as WP; 7.2% of the work force currently meets this definition, the highest proportion in recent years [15]. The WP often hold the lowest paying and least stable jobs in the U.S. economy; as a result, many are either not offered health insurance by their employer, are unable to maintain insurance coverage due to labor mobility, or work less than full time and thus do not qualify for ESI. In fact, recent U.S. Census data show that the majority of

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uninsured have worked in the past year and that the highest proportion of uninsured are those with annual household income of less than $25,000. WP adults may be self-employed or work for small firms not required to provide ESI [16]. For many WP adults who are eligible for ESI, escalating premium costs make ESI unaffordable. In MA, those eligible for ESI but who decline due to premium costs are excluded from the Commonwealth Care program. For those not eligible for ESI, income levels or immigration status may preclude eligibility for subsidized or no-cost insurance through Medicaid or Commonwealth Care programs.

We had a unique opportunity to examine the effects of the 2006 MA reform legislation among participants in an urban, population-based cohort study of Boston, MA residents. We focused our investigation on the WP, who, despite being targeted as potential beneficiaries of MA health care reform, continue to lack insurance coverage and access to care following reform implementation [10,12]. Stratifying by two periods to reflect the pre/during-reform implementation period and the post-implementation period, we sought to determine whether the mandate resulted in increased insurance coverage both overall and among WP. Despite previous valuable studies examining the impact of the legislation in cross-sectional designs, we believe ours is the first to examine the same participants prospectively, moving through time and the MA policy change.

Study data and methods

Study design and data collection

The Boston Area Community Health (BACH) Survey is a longitudinal cohort study of residents of Boston, MA, USA, aged 30–79 years at baseline (BL) (March 2002 to June 2005) which sought to explore the causes and correlates of urinary symptoms and type 2 diabetes. Detailed methods have been described elsewhere [17,18]. In brief, a stratified two-stage cluster random sampling design was used to recruit an approximately equal number of participants by gender, race/ethnicity (black, Hispanic, white), and age group (30–39, 40–49, 50–59, 60–79 years). Study data were collected on the same participants in two waves: a first interview conducted before mandate implementation (2002–2005, "BL") and a second during 2006–2010 ("follow-up"), thus creating the conditions for policy evaluation via an unplanned "natural experiment" [19]. In total, 5502 adults participated in BL BACH I (1767 black, 1876 Hispanic, 1859 white; 2301 men, 3201 women). Completed follow-up interviews were obtained for 4144 individuals (1610 men; 2534 women). Loss to follow-up among nonrespondents was mostly due to inability to contact and was more common for Hispanics, those aged 70–79 years at BL, and males. The mean (standard deviation) time between interviews was 4.8 (0.6) years. In both surveys, data were collected during a 2-hour interview in English or Spanish, after written informed consent. Sampling weights were used to produce estimates representative of the black, Hispanic, and white Boston, MA population aged between 30 and 79 years (based on Boston census population in 2000). Features of BACH that make it uniquely suitable for this investigation include the large, random diverse community sample of men and women, followed longitudinally, approximately 20% of whom qualified as WP; use of established survey instruments; and the ability to look at gains in insurance access over the course of health care reform implementation. Various findings in BACH have been compared with the findings of other large-scale regional and national surveys (Behavioral Risk Factor Surveillance System [BRFSS], National Health and Nutrition Examination Survey, and National Health Interview Survey) and results suggest that BACH is highly representative of the city of Boston. In addition, key estimates from BACH are comparable with national trends [18].

Definition of working poor

BACH participants were considered to be "working poor" if they were currently "working for pay" (whether part-time or full-time), and if their annual total household income at the time of the interview was estimated as less than 200% of the U.S. federal poverty threshold for household size; this definition is in line with current use of the Census Bureau's 2011 Research Supplemental Poverty Measure and is commonly applied as a WP definition [20–22]. "Nonworking poor" (NWP) was defined using the same annual household income range and included adults reporting any current work status other than working for pay. All participants with total annual household income of 200% or more of the U.S. federal poverty threshold for their household size were classified as not poor (NP), regardless of work status. Household income was estimated from predefined categories of total annual household income and the reported number of people supported by that income. WP status was defined for BL and follow-up analyses of insurance coverage using the responses from each respective study period; as a result, some individuals move from one group at BL to another in the entire follow-up period (FU). The 2003 and 2008 poverty thresholds were applied in the respective definitions, as these years fell at the midpoint of each data collection period.

Health insurance coverage

"Uninsured" was defined as no health insurance coverage at the time of the interview through any private sources (from employer, spouse's employer, military health, or a self-paid insurance plan), public sources (Medicare, Medicaid/MassHealth, Commonwealth Care), or through workers' compensation health insurance. Health insurance status was categorized likewise as (any) private, public only (hereinafter, "public"), or none at the time of the interview. We examined changes over time by creating four mutually exclusive groups: (1) Gained insurance (uninsured at BL but insured at FU); (2) Lost insurance (insured at BL but uninsured at FU); (3) Always insured, or (4) Remained uninsured.

Analytic sample and statistical analysis

Because new eligibility for Medicare would confound this analysis, persons aged 65 years or older at FU were removed ($n = 948$), as were 144 persons who were no longer residents of MA at FU. BACH FU data collection (2006–2010) was divided into two periods for comparison to BL (2002–2005): (1) pre- and during-implementation (FU1): July 1, 2006 (start of data collection) to December 31, 2008; and (2) post-implementation (FU2): January 1, 2009 to October 7, 2010 (end of data collection). Health care reform in MA was enacted in 2006 and made effective from January 1, 2007, and rolled out in phases, beginning with the state's poorest residents in October 2006 via automatic enrollment of uncompensated care pool enrollees into Commonwealth Care. Adults who are not U.S. citizens or in certain noncitizen visa status categories are ineligible for coverage. The law is enforced through tax penalties that were scaled up such that the maximum penalty was effective at the end of 2008 and thus the program may be considered fully implemented at that time (Fig. 1). The periods used in this analysis were also chosen for comparison with other literature [6]. All data analyses were performed using SAS-callable SUDAAN v.10 (Research Triangle Institute, Research Triangle Park, NC). Due to the mainly descriptive goals of this study, statistical testing was not emphasized.