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**1 August 2019**  
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- 6/16/24, 3:40 PM
- Subsidizing health insurance for low-income adults: evidence from Massachusetts | Microeconomic Insights
- First, the low estimates of willingness to pay are consistent with highly incomplete enrollment in the ACA exchanges. Even modest enrollee premiums are a major deterrent to universal coverage for a low-income population in Massachusetts.
  - Second, the study raises important and challenging questions about how to design health care for the uninsured in a way that provides a safety net without unduly distorting demand for formal health insurance.
  - Third, the significant amount of uncompensated care for the low-income uninsured suggests a key beneficiary of expanded health insurance coverage is the providers of uncompensated care.

The findings also have implications for proposals to cut or eliminate subsidies. While reducing insurance subsidies can lower costs, significant subsidies are required to achieve near-universal coverage.

*Main article*

How much are low-income people willing to pay for health insurance – and what are the implications for our understanding of health insurance markets and the role of subsidies? This research investigates these questions drawing on subsidy variation in Massachusetts’ health insurance exchange for low-income individuals. The results show that even modest premiums are a major deterrent to universal coverage: subsidies as high as 75% still result in less than half of the eligible population enrolling. Low-income individuals’ willingness to pay for insurance is far below insurers’ cost of covering them – implying that the barriers to market functioning go deeper than adverse selection. These findings highlight the difficulties of achieving universal health insurance coverage and suggest an important role for uncompensated care in reducing demand for formal health insurance.

Governments spend an enormous amount of money on health insurance for low-income people. For example, the US Medicaid program (which cost \$550 billion in 2015) dwarfs the size of the next largest means-tested programs: food stamps; and the earned income tax credit (\$70 billion each).

Perhaps because of these high and rising costs, public programs increasingly offer partial subsidies for health insurance, requiring enrollees to pay premiums to help to cover costs. Partial subsidies are a key feature of market-based programs such as the Affordable Care Act (ACA) exchanges. They are also a textbook policy response to ‘adverse selection’, a situation in which less healthy and therefore potentially higher cost individuals are more likely to enroll.

In such settings, measuring willingness to pay and insurers’ costs is important for analyzing the impact and desirability of alternative subsidies. Our research does this in the context of Massachusetts’ first-in-the-nation health insurance exchange for low-income individuals known as Commonwealth Care or CommCare.

# Subsidizing health insurance for low-income adults: evidence from Massachusetts (<https://microeconomicinsights.org/subsidizing-health-insurance-for-low-income-adults/>)

*Summary*

How much are low-income individuals willing to pay for health insurance? And what are the implications for insurance market reforms that propose to change government subsidies? Using administrative data from the pioneer subsidized insurance exchange in Massachusetts over the period 2009 to 2013, this study exploits discontinuities in the premium subsidy schedule to estimate willingness to pay and costs of insurance among low-income adults. The researchers have three main findings.

**Subsidies matter**

Insurance take-up falls rapidly as subsidies decline. About 25% of the eligible population of low-income individuals drop coverage in response to a \$40 increase in monthly enrollee premiums. The researchers’ estimates suggest that as the cost of buying insurance rises from \$0 to \$116 per month, take-up falls from nearly complete (94%) to less than half (44%).

**Plans suffer adverse selection**

Enrollees induced by larger subsidies to purchase insurance are also lower-cost, which is consistent with ‘adverse selection’ into insurance: the less healthy are more willing to pay at a given level of premium. But adverse selection cannot completely explain low take-up: even adjusting for adverse selection, enrollees’ own expected medical costs are three to four times larger than what they are willing to pay for insurance.

**Uncompensated care matters**

Plausible estimates of the amount of uncompensated care provided to the low-income population account for almost the entire gap between enrollees’ willingness to pay and the costs. This suggests that a primary beneficiary of expanded insurance coverage is not the enrollees themselves, but rather providers of uncompensated care.

**Implications for healthcare reform**

These results help to explain several features of the health insurance exchanges established by the Affordable Care Act (ACA) or ‘Obamacare’.

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**CommCare in MA**

Established in the state’s 2006 healthcare reform, CommCare offers heavily subsidized and regulated private insurance to non-elderly adults below 300% of the poverty line without access to employer insurance or other public programs. Individuals are mandated by law to have coverage, backed up by financial penalties.

We use a ‘regression discontinuity design’, together with administrative data on enrollment and medical costs, to estimate the demand for and cost of CommCare plans.

Our analysis exploits discontinuous drops in CommCare subsidies as incomes rise. Figure 1 shows the premiums owed by individuals for the least generous plan ( $P_L$  in blue) and most generous plan ( $P_H$  in red), along with the mandate penalty paid if they remain uninsured.

The subsidy amount changes discretely at 150%, 200%, and 250% of the federal poverty line (FPL). The cheapest plan’s (post-subsidy) monthly enrollee premium increases by about \$40 at each of the discontinuities. More generous plans experience a \$40 to \$50 increase in (post-subsidy) monthly enrollee premiums. These discontinuities in program rules provide identifying variation in enrollee premiums.

**Figure 1:**  
CommCare premiums by income in 2011

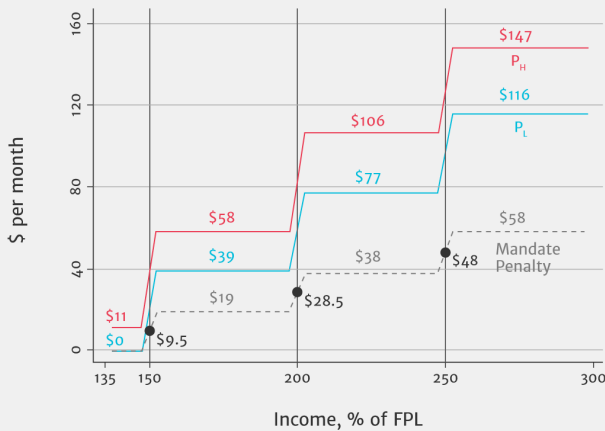
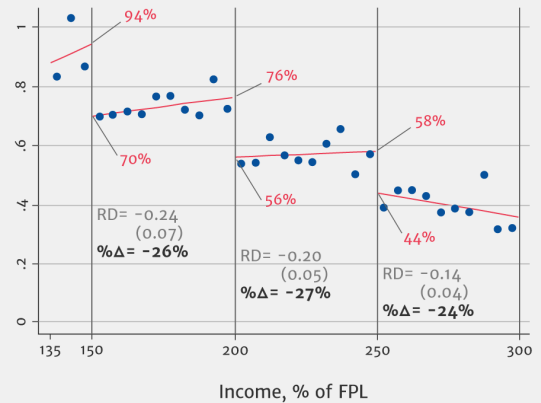


Figure 2 reports the fraction of the eligible population that enrolled in CommCare at each income level. At each threshold where premiums increase, we find significant reductions in insurance enrollment. We provide evidence that individuals are not manipulating their income around these thresholds, so enrollment declines represent decisions not to buy insurance given the higher price.

**Figure 2:**  
CommCare enrollment by income



For example, individuals at 149% of the FPL pay \$0 for health insurance, whereas individuals at 151% of the FPL pay \$39 per month in premiums. This price increase reduces the percentage of individuals choosing to enroll from 94% to 70%.

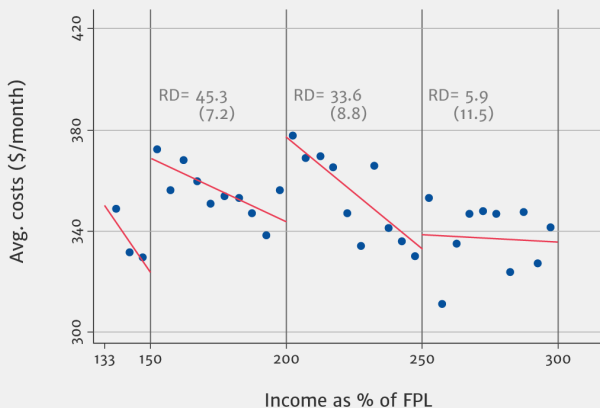
Aggregating our results, we estimate that a 75% subsidy requiring individuals to pay only 25% of their health insurance premiums would lead to less than 50% of eligible individuals enrolling. A 90% subsidy requiring individuals to only pay 10% of their premiums would still leave 20% of eligible uninsured. Large price subsidies are required to reach near-universal coverage.

#### Reasons for low enrollment: adverse selection and uncompensated care

Why is enrollment so low even at heavily subsidized prices? One possibility is adverse selection: the enrollees who drop coverage may be healthier (that is, lower cost) than the average enrollee. They may not be willing to pay the price of insurance that partly pays for the higher costs of inframarginal consumers.

Figure 3 shows that we indeed find evidence of adverse selection by plotting the average monthly cost of people who buy coverage at different income levels. The average cost increases at 150% of the FPL from \$325 to \$370 as enrollee premiums increase by \$39. In other words, higher premiums differentially lead more lower cost enrollees to drop coverage, which implies a higher average cost among remaining enrollees.

**Figure 3:**  
Average enrollee costs by income



But adverse selection is not the entire story. We also find that insurers' costs of covering *marginal* consumers are three to four times higher than these individuals' willingness to pay. This pattern holds throughout the 70% of the eligible population whose demand and cost we can estimate. In this sense, adverse selection alone does not explain low enrollment even at heavily subsidized prices: enrollees' willingness to pay lies substantially below the cost that they impose on the insurance company.

Standard models of insurance assume that willingness to pay exceeds the insurance cost by a risk premium that individuals are willing to pay to reduce exposure to risk. Why in this case do we find willingness to pay below cost?

Recent work has highlighted and quantified the significant role of uncompensated care provided to low-income populations (for example, Coughlin et al, 2014; Finkelstein et al, 2015). These estimates suggest that low-income individuals pay roughly 20-30% of their total medical expenditures. The remaining balance is either provided as charitable or free care, or left as unpaid bills.

In this sense, uncompensated care can provide a rationale for low willingness to pay and low enrollment even at highly subsidized prices. Enrollees' willingness to pay is much closer to their own 'net costs' (after subtracting uncompensated care that they would have received while uninsured) than the gross costs they impose on the insurer.

A key implication of this is that insurance subsidies benefit not only the recipient directly but also have spillover benefits to the providers of uncompensated care. The primary beneficiary of health insurance expansions may be the providers of uncompensated care, as opposed to the previously uninsured.

#### Implications for health insurance reforms

Our results have several implications for health insurance reforms.

- First, our low demand estimates are consistent with many low-income individuals and families choosing to remain uninsured despite high subsidies under the Affordable Care Act (ACA). Indeed, post-subsidy premiums are even higher under the ACA than in our Massachusetts setting. Our findings suggest that these premiums are a major barrier to universal coverage in a voluntary insurance system.
- Second, our findings also suggest that one reason low-income individuals may be unwilling to purchase even heavily subsidized insurance is the existence of uncompensated care for the uninsured. This raises important and challenging questions about how to design health care for the uninsured in a way that provides a safety net without unduly distorting demand for formal health insurance.
- Third, the significant amount of uncompensated care for the low-income uninsured suggests a key beneficiary of expanded health insurance coverage is the providers of uncompensated care. In other words, as a tool for redistribution, health insurance subsidies for low income recipients may be a rather blunt instrument.

"This article summarizes 'Subsidizing Health Insurance for Low-Income Adults: Evidence from Massachusetts' (https://www.aeaweb.org/articles?id=10.1257/aer.20171455) by Amy Finkelstein, Nathaniel Hendren, and Mark Shepard, published in the *American Economic Review* in April 2019.

Amy Finkelstein is at MIT. Nathaniel Hendren and Mark Shepard are at Harvard University.

#### Further reading

Coughlin, Teresa, John Holahan, Kyle Caswell, and Megan McGrath (2014) 'Uncompensated Care for the Uninsured in 2013' (https://www.kff.org/uninsured/report/uncompensated-care-for-the-uninsured-in-2013-a-detailed-examination/): A Detailed Examination', Henry J Kaiser Family Foundation.

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## Do larger health insurance subsidies benefit patients or producers? Evidence from Medicare Advantage (https://microeconomicinsights.org/larger-health-insurance-subsidies-benefit-patients-producers-evidence-medicare-advantage/)

## Regional variation in US healthcare use: evidence from patient migration (https://microeconomicinsights.org/regional-variation-us-healthcare-use-evidence-patient-migration/)

There is considerable geographical variation in the use of healthcare by beneficiaries of Medicare, the US federal health insurance program for people who are 65 or older. This research explores the extent to which regional disparities are driven by the providers, whose use of expensive tests or procedures might vary across different places, or by the patients, who might have different healthcare needs and preferences. Analyzing data on Medicare beneficiaries who have migrated from one part of the country to another, the study finds that patients and providers account for roughly equal shares of the differences in regional spending. The results provide a better understanding of the components of medical costs, adding nuance to the debate about possible inefficiencies in US healthcare spending.

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A central question in the US debate over privatized Medicare is whether increased government contributions to private plans generate lower premiums for consumers or higher profits for producers. This research finds that insurance companies pass through 45% of higher payments in lower premiums and an additional 9% in more generous benefits for those who enroll in Medicare Advantage. Since the findings also suggest that the less than full pass-through is a result of insurer market power, efforts to make markets more competitive may be key to increasing the pass-through to consumers.



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22 June 2017

Health (https://microeconomicinsights.org/category/health/), Organisation of Markets (https://microeconomicinsights.org/category/organisation-of-markets/)

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## Health insurance competition: effects on premiums, hospital rates, and welfare

# (https://microeconomicinsights.org/health-insurance-competition-effects-premiums-hospital-rates-welfare/)

In evaluating health insurance mergers recently proposed in the U.S., regulators have grappled with the costs and benefits of reduced insurer competition. Our study examines the direct and indirect effects that a reduction in the number of insurers has on premiums, provider reimbursement rates, and consumer welfare. Using detailed health and enrollment data and focusing on a part of the commercial health care market, we examine whether consumers are typically harmed when an insurer is removed from the market. Absent premium setting constraints, we find that premiums typically rise, and consumers are generally harmed as they suffer from having fewer options. However, we also find that the reimbursement rates negotiated by hospitals need not always increase, and in many cases, can actually fall.



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# Hospital competition and patient choice can improve healthcare quality (https://microeconomicinsights.org/hospital-competition-patient-choice-can-improve-healthcare-quality/)

The introduction of greater choice and competition in healthcare is an increasingly popular model for public service reform. This research shows that once restrictions on patients' choice in England's National Health Service were lifted, those requiring heart bypass surgery became more responsive to the quality of care available at different hospitals. This gave hospitals a greater incentive to improve quality and resulted in lower mortality rates. In short – the introduction of choice and competition saved lives.



"Westcountry ambulance" by Graham Richardson, used under CC BY 2.0 / Desaturated from original, with colour filter. (https://microeconomicinsights.org/healthcare-how-competition-can-improve-management-quality/)

16 December 2015

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# Healthcare: how competition can improve management quality and save lives (https://microeconomicinsights.org/healthcare-how-competition-can-improve-management-quality/)

NHS hospitals in England are rarely closed in constituencies where the governing party has a slender majority. This means that for near random reasons, those areas have more competition in healthcare – which has allowed the authors to assess its impact on management quality and clinical performance.

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