INSURING THE UNINSURED

The Oregon Health Insurance Experiment found that covering the uninsured with Medicaid increased the use of health care, including primary care, hospitalizations, and emergency room visits; diminished financial strain; and reduced depression. There was no statistically significant impact on physical health measures, employment, or earnings.

Featuring an evaluation by principal investigators Katherine Baicker and Amy Finkelstein

IMAGE COURTESY SHUTTERSTOCK/CLEANFOTOS

The impact of extending health insurance coverage to the uninsured persists as a topic of debate in the United States, but there is limited rigorous evidence on the effects of expanding health insurance, and Medicaid in particular, on health care use, health outcomes, financial hardship, and employment.

Prevailing theories offer conflicting predictions for the impact of expanding Medicaid, the public health insurance program in the United States for low-income adults and children. For example, by reducing the costs patients face in seeking care, Medicaid may increase health-care use, improve health, and reduce financial hardship from large, out-of-pocket health expenditures. However, these effects could be negligible in magnitude if the program does not in fact afford newly insured individuals access to health-care services, or if these individuals had already been able to receive comparable cost-free services through public-health clinics or uncompensated care. In these cases, the magnitude of the expected change is uncertain.

In some cases, both the direction and the magnitude of changes caused by Medicaid are unclear. For example, expanded Medicaid coverage could either increase or decrease emergency-department use. On the one hand, by reducing the costs the patient faces for emergency-department care, expanding Medicaid could increase use and total health-care costs. On the other hand, if Medicaid increases primary-care access or improves health, expanding Medicaid could reduce emergency-department use and perhaps even total health-care costs.

In 2008, the state of Oregon expanded Medicaid coverage to a limited number of individuals selected by a lottery. This provided a rare opportunity for researchers to use the random selection of lottery winners to better examine and understand the effects of extending Medicaid to the uninsured.

IN THE FIRST ONE TO TWO YEARS:

Medicaid increased the use of health-care services. It increased hospitalizations, emergency-department visits, outpatient visits, prescription-drug use, and preventive-care use. Medicaid also improved access to medical-care services.

Medicaid decreased financial strain. It reduced medical debts sent to collection agencies, lowered the likelihood of borrowing money or skipping other bill payments to cover medical expenses, and virtually eliminated catastrophic out-of-pocket medical expenditures.

Medicaid improved self-reported health and reduced rates of depression, but had no statistically significant effect on physical health outcomes. Clinical measures included screenings of blood pressure, cholesterol, and glycated hemoglobin.

Medicaid had no statistically significant effect on employment or earnings.

EVALUATION

The state of Oregon offers a Medicaid expansion program for low-income, able-bodied, uninsured adults aged 19–64 years who are not eligible for other public health insurance. This program, called Oregon Health Plan Standard, had capacity for new enrollment in 2008 after being closed since 2004 due to budgetary constraints. Correctly anticipating excess demand for the available new enrollment slots, the state conducted a lottery, randomly selecting individuals from a list of those who signed up in early 2008. Lottery winners and members of their households were able to apply for Medicaid. Applicants who met the eligibility requirements[1] were then enrolled in Oregon Health Plan Standard.

IMAGE COURTESY SHUTTERSTOCK/KURHAN

CONTROL GROUP (Not selected by the lottery) 45,088 individuals	TREATMENT GROUP (Selected by the lottery) 29,834 individuals
Continue with status quo.	Eligible to apply for Oregon Health Plan Standard (Medicaid), which provides comprehensive medical benefits at a low monthly premium, including prescription drugs, physician services, and major hospital benefits, with no patient cost-sharing.

The Oregon Health Insurance Experiment is a series of ongoing studies in which a team of researchers is using assignment to the program by a lottery to study the impact of this Medicaid expansion. It is the only randomized evaluation that has ever been conducted on the impact of Medicaid.

Researchers estimated the effects of expanding Medicaid coverage by comparing the outcomes of those selected by the lottery and those who were not selected, using a combination of survey and administrative data.[2] They collected administrative data on Medicaid enrollment, hospital and emergency-department use, credit reports, participation in other public programs, and labor-market outcomes. Researchers also conducted a mail survey about one year after the lottery, which contained information on self-reported financial strain, health, and health-care access and use. All individuals in the treatment group and a similar number of individuals in the control group were sent a survey. About two years following the lottery, researchers conducted more detailed in-person interviews and physical-health exams for a subset of about twelve thousand treatment and control group individuals in the Portland metro area. This included measurements of cholesterol, blood pressure, and glycated hemoglobin (a measurement used to diagnose and gauge control of diabetes), and screenings for depression, in addition to a catalog of medications.

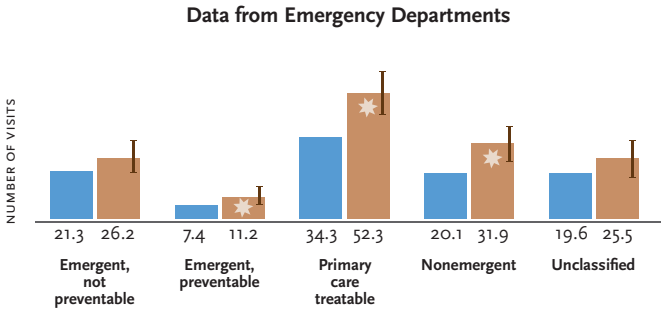
[1] Eligible candidates were 19–64 years of age, US citizens or legal immigrants, ineligible for other public health insurance (including the traditional Medicaid program available to children, the disabled, and cash welfare recipients), uninsured for the past six months, had income under 100 percent of the federal poverty level, and possessed assets of less than $2,000. In contrast, traditional Medicaid in most states in 2008 did not cover adults with income under 100 percent of the federal poverty level who did not meet certain other eligibility criteria.

[2] The state of Oregon kept the barriers for signing up for the lottery low and did not screen for Medicaid eligibility at lottery sign-up. Not everyone who won the lottery ended up on Medicaid because only about 60 percent of those who won filled out the paperwork to receive Medicaid coverage, and, among this group, only about half met the eligibility requirements for Medicaid coverage. The results in the following text and figures measure the impact of Medicaid coverage by comparing the individuals who won the lottery to the individuals not selected by the lottery (the control group), under the assumption that the only reason these groups differ is because of the increased Medicaid coverage among those selected by the lottery. Because only about one-quarter of lottery winners actually ended up on Medicaid, the effect of Medicaid coverage is found by multiplying the effect of winning the lottery by approximately four.

RESULTS

Medicaid increased the use of health-care services. Administrative hospital and emergency department records showed that, over about an 18-month period, Medicaid increased the probability of hospital admission by 2.1 percentage points (a 30 percent increase relative to the control group[3]) and the number of emergency-department visits per person by 0.41 visits (a 40 percent increase). This included, in particular, increases in visits to the emergency department for conditions considered likely to be nonemergent and treatable by primary care (Figure 1). Survey results indicated that Medicaid also increased outpatient visits and prescription-drug use.

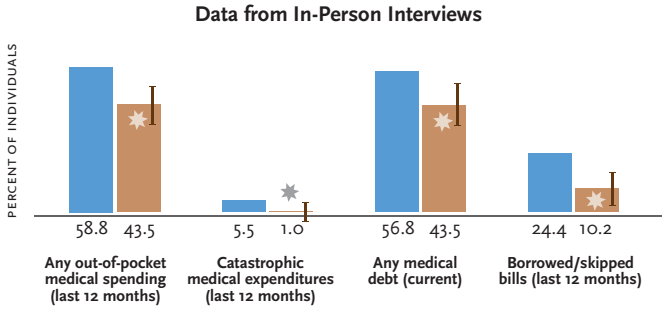
FIGURE 1: EFFECT ON EMERGENCY-DEPARTMENT USE



Medicaid increased the use of recommended preventive-care services as well. For example, Medicaid more than doubled the likelihood of mammograms for women over forty years of age. Self-reported access to and quality of care also improved with Medicaid coverage.

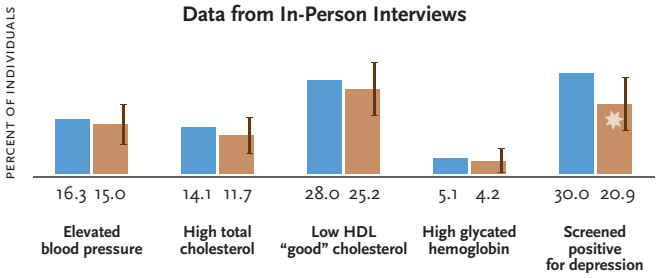
Medicaid diminished financial hardship. Medicaid reduced the likelihood of having any unpaid medical bills that were sent to collection agencies by 6.4 percentage points (a 23 percent decrease). It also reduced several other measures of financial hardship (Figure 2). Catastrophic out-of-pocket expenditures, defined as out-of-pocket medical expenditures in excess of 30 percent of household income, were nearly eliminated.

FIGURE 2: EFFECT ON FINANCIAL HARDSHIP



Medicaid reduced rates of depression and improved self-reported health, but had no statistically significant effect on physical health measures. Specifically, Medicaid did not have a statistically significant effect on measured blood pressure, cholesterol, or glycated hemoglobin (Figure 3). However, Medicaid did increase the diagnosis of diabetes and use of diabetes medication. Given limits in the sample size of diabetic people, the study was not able to rule out potential improvements in glycated hemoglobin (a measure of diabetes) one would have expected to see with the increased medication use. On the other hand, the study was able to rule out declines in blood pressure one would have expected to see based on prior quasi-experimental evaluations of the effects of Medicaid.

FIGURE 3: EFFECT ON CLINICAL MEASURES



While long-run effects may differ from those found over this two-year study period, these physical health measures were chosen explicitly because clinical trials have shown them to respond to medication within this time frame.

Medicaid reduced rates of depression by 9 percentage points (a 31 percent decrease) and increased the likelihood of self-reporting health as good, very good, or excellent (as opposed to fair or poor) by 13 percentage points (a 24 percent increase).

Medicaid had no statistically significant effect on individuals' employment or earnings. The employment rate among the control group was about 55 percent and the study was able to rule out a decline in employment due to Medicaid of greater than 4.4 percentage points or an increase greater than 1.2 percentage points.

[3] All reported percent changes indicate the percent increase or decrease caused by Medicaid relative to the control group.

POLICY LESSONS

The state of Oregon conducted a lottery to select people for an oversubscribed Medicaid program. In doing so, the state provided a unique opportunity to perform a randomized evaluation to rigorously measure the effects of the program. The study yielded evidence that challenges several divergent but persistent claims about the Medicaid program.

On the one hand, numerous commentators claimed that many Medicaid patients would be better off with no health insurance because Medicaid patients have difficulty accessing care and often have worse health outcomes than the uninsured. However, this evaluation demonstrated measurable benefits: within the first one to two years, Medicaid reduced exposure to major financial risk, reduced depression, improved diabetes detection and treatment, and improved self-reported health and happiness.

On the other hand, another common claim is that the uninsured overburden emergency departments by seeking last-resort care there, and that expanding Medicaid would get these patients out of the emergency department and into primary care, improving health and reducing health-care spending. However, this study finds that, within the first one to two years, Medicaid increases health-care utilization, including the use of emergency departments for both emergent and nonemergent care; it did not find any statistically significant improvements in physical-health measures.

While further research is needed to understand the most effective and efficient means of providing health care and insurance, these results can help inform ongoing policy discussions regarding the costs and benefits of expanding Medicaid coverage to the uninsured.

Featured Evaluation: www.nber.org/oregon

Baicker, Katherine, Amy Finkelstein, Jae Song, and Sarah Taubman. 2014. "The Impact of Medicaid on Labor Force Activity and Program Participation: Evidence from the Oregon Health Insurance Experiment." *American Economic Review Papers and Proceedings*. Forthcoming.

Baicker, Katherine, Sarah L. Taubman, Heidi L. Allen, Mira Bernstein, Jonathan H. Gruber, Joseph P. Newhouse, Eric C. Schneider, Bill J. Wright, Alan M. Zaslavsky, and Amy N. Finkelstein. 2013. "The Oregon Experiment–Effect of Medicaid on Clinical Outcomes." *The New England Journal of Medicine* 368(18): 1713-1722.

Finkelstein, Amy, Sarah Taubman, Bill Wright, Mira Bernstein, Jonathan Gruber, Joseph P. Newhouse, Heidi Allen, and Katherine Baicker. 2012. "The Oregon Health Insurance Experiment: Evidence from the First Year." *Quarterly Journal of Economics* 127(3): 1057-1106.

Taubman, Sarah, Heidi Allen, Bill Wright, Katherine Baicker, and Amy Finkelstein. 2014. "Medicaid Increases Emergency Department Use: Evidence from Oregon's Health Insurance Experiment." *Science* 343(6168): 263-268. DOI: 10.1126/science.1246183

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