

THE OREGON STUDY OF MEDICAID EXPANSION IS BEING MISINTERPRETED

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BACKGROUND

The Affordable Care Act (ACA) has been attacked from all sides and for many reasons. Even its proponents agree that its mechanisms for extending coverage to tens of millions of the currently uninsured are more complex and costly than necessary, because the political maneuvering to manipulate the bill through our adversarial and gridlocked Congress preserved a central role for insurance companies and their profits. And the situation has been made even more complex by the refusal of many states, mainly those with Republican governors, to develop public health insurance exchanges for middle-income people (leaving it up to the Federal government to fill that void), or to expand state-run Medicaid programs for low-income people.

Opponents of the ACA do not concede that the status quo is cruel and callous; they argue not only that people without insurance still receive care in our multi-faceted health care system,* but also that giving them access to insurance won't improve their health. Of course that assertion not only ignores the reality that the cost of a single admission through the emergency room can bankrupt a low-income family, but it also avoids any discussion of preventive care, or care for chronic conditions, which Emergency Rooms and other urgent care facilities will not provide.

For the discussion in this column, let's put aside political concerns and moral issues, and focus on the central health care question: if those without insurance gain access to comprehensive coverage that provides preventive medicine and proper care for chronic conditions like hypertension and hypercholesterolemia, will it improve their health status as measured by objective scientific criteria? The implications of the answer are far-reaching, because if a plan like the ACA does not

improve the health of those it covers, considerations like cost become secondary.

The early results from Massachusetts¹ suggest that universal health care does lead to improvements in "physical health, mental health, functional limitations, joint disorders, body mass index, and moderate physical activity." But that report from the National Bureau of Economic Research, the nation's largest economic research organization and thus a trusted and authoritative voice, was based entirely on self-reported data that were unverified and inherently subjective. Until now, there has been no controlled study that used objective criteria to judge the health benefits of providing new coverage to a large population that previously lacked it. But a study published last month in *The New England Journal of Medicine*, and already widely quoted by both sides of the debate in support of their own positions, provides information from a "natural" controlled, randomized study of just this question.² (Before going further, I must emphasize that it is necessary to read the original manuscript in the *NEJM* in order to fully understand its implications. I will avoid giving many of its numerical details here because I don't want it to seem as if my brief comment is an adequate substitute for reading the original.)

THE OREGON EXPERIMENT

Oregon Health Plan Standard (OHPS) is the state's "Medicaid program for low-income, uninsured, able-bodied adults who are not eligible for other public insurance in Oregon" (such as Medicare or the Children's Health Insurance Program for poor children). OHPS, mostly through managed-care organizations, provides comprehensive medical benefits including prescription drugs, with no patient

* On 9/23/13, then Presidential candidate Mitt Romney, on a CBS interview, was asked: "Does the government have a responsibility to provide health care to the 50 million Americans who don't have it today." In a much-criticized reply, he said: "Well, we do provide care for people who don't have insurance... if someone has a heart attack, they don't sit in their apartment and die. We pick them up in an ambulance, and take them to the hospital, and give them care. And different states have different ways of providing for that care."

As we all know, this "let them eat emergency rooms" was another of his famous flip-flops. Earlier, as Governor of Massachusetts promoting a program of universal health care, Romney had more accurately observed that getting rid of expensive emergency room care would lower costs and improve care.

cost-sharing and low monthly premiums of \$0-\$20 based on income.)

Initiated in 1994, OHPS closed to new enrollment in 2004 for budgetary reasons, but in early 2008 the state conducted random lottery drawings from a new waiting list to extend coverage to a limited number of additional persons. Tens of thousands of Oregonians competed for a few thousand initial slots.

Those selected in the lottery received an application by mail they could complete and submit, and if they met the eligibility criteria they were enrolled in the plan. They had to be: 19-64 years of age; Oregon residents who were U.S. citizens or legal immigrants; ineligible for other public insurance; uninsured for the previous 6 months; and they had to have an income below the federal poverty level and assets of less than \$2,000.

Because a lottery system was used to select those who would be offered participation in OHPS, the situation provided a “natural” experiment to determine the effect on health outcomes of offering new coverage in a health plan to the previously uninsured. And this opportunity was not lost on the statisticians at the Center for Outcomes Research and Education at Providence Portland Medical Center in Portland, Oregon. In collaboration with several other centers for research, they analyzed the available data from many perspectives. As noted, only a thorough reading of the detailed report² can provide a full picture of the study, but a summary of its abstract will allow us to focus on certain findings and their implications.

METHODS

Approximately 2 years after the lottery, the investigators obtained data from 6,387 adults randomly selected to be able to apply for Medicaid coverage (not all actually did apply for coverage), and 5,842 adults who were not. Measures used to study the effect of Medicaid coverage included blood-pressure, cholesterol, and glycosylated hemoglobin levels; screening for depression; medication inventories; and self-reported diagnoses, health status, health care utilization, and out-of-pocket spending for such services. It is important to note that there were no baseline data taken before the lottery.

RESULTS

There was no significant effect of Medicaid coverage on the prevalence or diagnosis of hypertension or high cholesterol levels or on the use of medication for these conditions. Medicaid coverage significantly increased the

probability of a diagnosis of diabetes and the use of diabetes medication, but there was no significant effect on average glycosylated hemoglobin levels or on the percentage of participants with levels of 6.5% or higher. Medicaid coverage decreased the probability of a positive screening for depression (-9.15%, $P=0.02$), increased the use of many preventive services, and nearly eliminated catastrophic out-of-pocket medical expenditures.

CONCLUSIONS

The authors concluded that Medicaid coverage generated no significant improvements in measured physical health outcomes (blood-pressure control, cholesterol levels, or glycosylated hemoglobin levels) in the first 2 years, but it did increase use of health care services, raise rates of diabetes detection and management, lower rates of depression, and reduce financial strain.

IMPLICATIONS

Opponents of Obamacare have zeroed in on the conclusion that “Medicaid coverage generated no significant improvements in measured physical health outcomes.” In a flourish of hyperbole, Michael Cannon, Director of Health Policy Studies at the Cato Institute, a conservative think tank funded by Charles Koch, has written in the *NYTimes* that “the results stunned and embarrassed ObamaCare supporters,”³ and he asserted that “states should stop implementing ObamaCare, and Congress should swiftly repeal it.”

Actually, it would have been more stunning if pundits with no understanding of the scientific method or of medical statistics had refrained from weighing in and jumping to conclusions about the implications of a single, unduplicated, short-term research study in a select and perhaps unique population that jumped through a variety of statistical hoops to reach its seemingly unambiguous conclusions.

But the din will doubtless increase, so it’s important to set the record straight, because if it is really true that treating high blood pressure and hypercholesterolemia has no discernible effect, the challenge is not just to the ACA, but to fundamental principles in the management of chronic disease. Since we know that treatment of both those conditions is highly effective in improving health outcomes, there must be an explanation for this study’s findings. And it isn’t hard to find in a sentence from the Results section of the abstract: “We found no significant effect of Medicaid coverage on the prevalence or diagnosis of hypertension or high cholesterol levels or on the use of medication for these

conditions.” It is *this* finding which, if unexplained, is truly stunning, because it says that better access to care and removal of financial barriers doesn’t lead to more frequent detection of common, treatable health problems, or to better management.

We can start to explain this striking finding by noting that not all those selected by the lottery enrolled in Medicaid, either because they did not apply or were deemed ineligible. In fact, the authors tell us that “lottery selection [only] increased the probability of Medicaid coverage during our study period by 24.1 percentage points.” Even without the lottery, many in both groups were already covered by Medicaid under OHPS: children, the aged, blind, disabled, and various other categories.

Since the lottery increased the chance of being enrolled in Medicaid by about 25%, and the lottery likely affected outcomes only by changing Medicaid enrollment, they further assumed that the effect of being enrolled in Medicaid was about 4 times (i.e., 1 divided by 0.25) as high as the effect of being able to apply for Medicaid. This yielded a causal estimate of the effect of insurance coverage. It is also crucial that subjects were considered to have coverage if they “ever had Medicaid during the period of the study,” which could have been a very short interval for some. (The average period of coverage was only 17 months.) Further, “the subgroup of lottery winners who ultimately enrolled in Medicaid was not comparable to the overall group of persons who did not win the lottery.”

And although you wouldn’t know it from the conclusions, there were in fact substantial increments in the diagnosis and treatment of hypercholesterolemia, but the confidence limits were too wide for them to be significant because of the method of statistical analysis. Also, there was a low prevalence of the measured health conditions in this study, and the differences might have been statistically significant if there were a larger sample or increased prevalence. In fact, the low prevalence of these common problems (hypertension in particular) makes me wonder about the sensitivity of the screening.

Furthermore, there seems to have been poor compliance with recommended medications. The conditions chosen for study—hypertension, hypercholesterolemia, and Type II diabetes, while subject to objective measurement, are far from ideal metrics because poor compliance can be anticipated in this population. These conditions usually cause no symptoms, are treated with drugs that have side effects (e.g. impotence), and have benefits only in the long term.

Finally, this study did not or could not address many important potential health benefits of health insurance, including early detection of cancer and a reduction in sick days from school or work, and it was probably too short to detect a reduction in mortality.

INTERPRETATION

An editorial that accompanied the article points out that the minimal effects of Medicaid coverage on measures of physical health are not entirely surprising, since there are so many steps between the mere availability of insurance coverage and the actual delivery of appropriate care.⁴ I see this point illustrated by the fact that many of those selected by lottery didn’t apply for coverage. The lesson I draw from that fact is that you can lead a horse to water, but if it has never even seen a pond before, it won’t know how to drink. If you have a population that has not previously had health insurance or easy access to care, and you offer them an opportunity to sign up for it, and then get screened for health problems that aren’t causing symptoms, you are likely to get poor compliance.

Thus, this study does teach us that money isn’t the only barrier to instituting population-wide measures that are proven to improve health outcomes. We must not only provide access to care, but we must educate the (previously) uninsured why it’s important to use that access, and how to use that access for preventive care *even if they have no clinically apparent health problem*. The study *does not* teach us that it’s a waste to detect and treat hypertension and hypercholesterolemia.

REFERENCES

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