Did a Harvard study prove that Obamacare raises healthcare costs without improving health?

<u>What's True</u>: A Harvard-led study of Oregon State's 2008 Medicaid expansion program found that during its first two years some proxies for physical health did not show statistically significant improvements in low-income adults while others did.

<u>What's False</u>: The study did not prove that a nation-wide Medicaid expansion would offer no clinically measurable improvements in the health of program participants, nor that it would be costlier to taxpayers and/or those receiving services.

The Obama Administration's Patient Protection and Affordable Care Act (or Affordable Care Act for short) was designed to make quality health insurance more accessible to millions of uninsured Americans. One of the key features of the plan was expanded access to Medicaid for low-income families. The program has been controversial, particularly among Republican lawmakers and their constituents, and in the spring of 2013 many conservative commentators began claiming that a recent Harvard study had proven that the act's Medicaid provisions did nothing to improve physical health (Cannon, 2013; Roy, 2013). In my home state of Washington Representative Dave Reichert (R - 8th Congressional District) and three other lawmakers co-authored a letter to Washington Governor Jay Inslee and Insurance Commissioner Mike Kreidler in Jan. 2017 outlining their concerns about the ACA in which they claimed that,

"We would also like to point out that the ACA forced 80 percent of newly insured Washingtonians into Medicaid - a safety net program that has been plagued by severe access problems, poor quality of care, and unsustainable funding. A study by researchers at Harvard University recently found that not only did Medicaid spending increase by \$1,100 per person in Oregon, but beneficiaries of the state's Medicaid program had no better clinically-measured health outcomes than individuals who had no insurance at all..." (Reichert et al., 2017)

Though Reichert didn't cite it, the study he and others are referring to is Baicker et al. (2013) which investigated the effectiveness of the Oregon Health Insurance Experiment (OHIE) on health care for low-income adults (Wikipedia, 2016f). In 2008 an influx of funding allowed the state of Oregon to expand its existing Medicaid program. Because there wasn't enough to provide care to everyone not yet covered by it, a lottery system was implemented and 29,835 candidates selected from a waiting list of some 90,000 were given the opportunity to apply for the program if they wanted to. The result provided economists and healthcare researchers with the holy grail of statistics--a truly randomized sample population with which to study the effectiveness of a key component of the Obama Administration's Affordable Care Act (ACA). Baicker's team gathered two years of health proxy data for a random sample of 6387 lottery-selected adults who signed up for the program, and used a least-squares instrumental-variable regression model to compare them to a control group of 5842 who weren't chosen. Their work expanded on a similar one-year study published the previous summer (Finkelstein et al., 2012). They found that Medicaid coverage had no statistically significant effects on the diagnosis and treatment of hypertension, high cholesterol levels, and average glycated hemoglobin levels (a measure of risk for diabetes), but significantly improved the treatment of depression and early diagnosis of diabetes. They also found that access to preventive care was greatly enhanced and catastrophic out-of-pocket medical expenditures were all but eliminated for those covered. This is being widely hailed by Reichert and other Republicans as "failure."

The team's results are summarized in tables 2 through 5 (Baicker et al., 2013). Reichert's figure of \$1,100 was rounded from the estimated annual per-capita healthcare spending change of \$1,171.63 reported in Table 5 (shown below).

Table 5. Mean Values and Absolute Change in Health Care Utilization and Spending, Preventive Care, Access to and Quality of Care, and Smoking and Obesity with Medicaid Coverage.*

| Variable | Mean Value in Control Group | Change with Medicaid Coverage (95% CI)† | P Value |
|------------------------------------------------------|--------------------------------|--------------------------------------------|---------|
| Utilization (no. of visits or medications) | | | |
| Current prescription drugs | 1.8±2.8 | 0.66 (0.21 to 1.11) | 0.004 |
| Office visits in past 12 mo | 5.5±11.6 | 2.70 (0.91 to 4.49) | 0.003 |
| Outpatient surgery in past 12 mo | 0.1±0.4 | 0.03 (-0.03 to 0.09) | 0.28 |
| Emergency department visits in past 12 mo | 1.0±2.0 | 0.09 (-0.23 to 0.42) | 0.57 |
| Hospital admissions in past 12 mo | 0.2±0.6 | 0.07 (-0.03 to 0.17) | 0.17 |
| Estimate of annual health care spending (\$): | 3,257.3 | 1,171.63 (199.35 to 2,143.91) | 0.018 |
| Preventive care in past 12 mo (%) | | | |
| Cholesterol-level screening | 27.2 | 14.57 (7.09 to 22.04) | < 0.001 |
| Fecal occult-blood test in persons ≥50 yr | 19.1 | 1.26 (-9.44 to 11.96) | 0.82 |
| Colonoscopy in persons ≥50 yr | 10.4 | 4.19 (-4.25 to 12.62) | 0.33 |
| Flu shot in persons ≥50 yr | 35.5 | -5.74 (-19.31 to 7.83) | 0.41 |
| Papanicolaou smear in women | 44.9 | 14.44 (2.64 to 26.24) | 0.016 |
| Mammography in women ≥50 yr | 28.9 | 29.67 (11.96 to 47.37) | 0.001 |
| PSA test in men ≥50 yr | 21.4 | 19.18 (1.14 to 37.21) | 0.037 |
| Perceived access to and quality of care (%) | | | |
| Had a usual place of care | 46.1 | 23.75 (15.44 to 32.06) | < 0.001 |
| Received all needed care in past 12 mo | 61.0 | 11.43 (3.62 to 19.24) | 0.004 |
| Care was of high quality, if received, in past 12 mo | 78.4 | 9.85 (2.71 to 17.00) | 0.007 |
| Smoking status and obesity (%) | | | |
| Current smoker | 42.8 | 5.58 (-2.54 to 13.70) | 0.18 |
| Obese | 41.5 | 0.39 (-7.89 to 8.67) | 0.93 |

^{*} Plus—minus values are weighted means ±SD. Where means are shown without standard deviations, they are weighted means. The effect of Medicaid coverage was estimated with the use of two-stage least-squares instrumental-variable regression. All regressions include indicators for the number of household members on the lottery list, and all standard errors were clustered on household. All analyses were weighted with the use of survey weights. The sample size was all 12,229 survey respondents. For some prevention measures, the sample was limited to the 3374 survey respondents who were at least 50 years of age, the 1864 female survey respondents who were at least 50 years of age, or the 1509 male survey respondents who were at least 50 years of age. The sample for quality of care was limited to the 9694 survey respondents who received care in the previous 12 months. PSA denotes prostate-specific antigen.

[†] For variables measured as percentages, the change is expressed as percentage points.

[‡]Annual spending was calculated by multiplying the numbers of prescription drugs, office visits, visits to the emergency department, and hospital admissions by the estimated cost of each. See the Supplementary Appendix for details.

Several things are immediately apparent. First, the per-capita spending was extrapolated from increases in the number of prescription drugs, office visits, and hospital and emergency room admissions reported in the same table, and the average cost of each. This is hardly surprising. Without affordable healthcare, low-income families cannot use these services and still feed and clothe their children, so they don't. But with Medicaid coverage what once were prohibitively expensive services are now available to them with reasonable co-pays and surprise, surprise... they start using them.

In other words, what Reichert is calling a "Medicaid spending increase" is a *voluntary* increase in co-pay spending by low-income adults for badly needed services that previously had been out of reach for them. Furthermore, the upper end of that spending range is almost certainly for catastrophic care services that although expensive with Medicaid, would otherwise have been out of reach for low-income families--unless of course, they happened to have \$80,000 stashed in a box of corn flakes for rainy day surgeries and cancer treatments.

Second, the 95% (or "2-sigma") confidence interval for that figure reflects a standard deviation that is nearly half the size of the mean. The spread in the actual out-of-pocket expenditures is larger than the value being reported, and literally covers everything from the cost of a blender to several months' take-home pay for many program participants. Essentially this is like using an air-dropped cluster bomb to mark the location of a penny. The usefulness of such a figure for policy planning is questionable at best.

Reichert and many Republicans claim that Baicker's team found "no better clinically-measured health outcomes." That is false. What they reported was *no significant change over a two-year period in three of the proxies they tracked:* high blood pressure and cholesterol, and average glycated hemoglobin levels used to diagnose diabetes. But they also reported *significant improvements in the treatment of depression, early diagnosis of diabetes, access to preventative medicine and health care services, and drastically reduced medically related financial hardships.* There isn't a medical professional anywhere on this earth who would call Medicaid a sweeping failure based on the former alone, and not consider the latter an improvement in care. While it is true that there's no consensus regarding the cost-effectiveness of preventive healthcare measures in general, their ability to reduce long-term costs of many chronic illnesses (e.g. diabetes) and improve quality of life are beyond dispute (Maciosek et al., 2010; Russell, 1993), and reductions in violence due to improved treatment of depression and other mental illnesses would likely impact the cost of treating the resulting catastrophic injuries as well.

Furthermore, the authors rightly report that their study had limitations that directly affect the generalization of its conclusions to the ACA nation-wide. First, there are several respects in which Oregon's low-income uninsured population is not a representative sample of the overall uninsured population in the United States in general. It was heavily weighted toward able-bodied whites and restricted to those who are below the federal poverty level. It's not at all clear that the results can be extrapolated to the national racially diverse population without access to adequate healthcare insurance, including those above the poverty line. Second, while their population sample was large enough to be statistically significant for their purposes, it was far too small to reflect any potential systemic factors affecting access to care (e.g. large-scale pressures on providers and underwriters, etc.), and the period studied was too short for meaningful conclusions to be drawn regarding long-term mortality and quality of care. To be sure, the ACA is not perfect. Few economists and healthcare professionals wouldn't agree that it could be improved, and despite its limitations this study provides valuable insight into how that might be done. But to call Medicaid or the ACA a costly blanket failure based on it alone is at best uninformed.

A couple years ago, while vacationing in the San Juan Islands my fiancé and I met a man who was an English professor. Over breakfast one morning he told us of a colleague of his who was an associate professor of English Literature at a Seattle-area community college. As an associate professor without a full teaching schedule, his colleague didn't qualify for healthcare coverage from the college he worked for and didn't earn enough to purchase coverage on his own. In his 40's he was diagnosed with a fatal but very treatable form of cancer (I don't recall which), but without coverage from the college or the ability to afford the expensive treatments needed, he had no options but to hope for the best. He was in his mid-40's when he died of it... even though with healthcare it could have been treated with a very high recovery rate.

Reichert would have us believe that this man was much better off without the ACA's expanded Medicaid access... because he wasn't "forced" to make affordable co-pays for the cancer treatments he needed, and saving his life wouldn't have been a better "clinically-measured health outcome" anyway...

Had he survived long enough to attend one of Reichert's town halls and been given a chance to tell his story, I doubt he would've agreed.

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