The Impact of Expanding Medicaid: Evidence from the Oregon Health Insurance Experiment

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Helpful or Harmful: The Debate Over Medicaid

The Washington Post
How the Medicaid expansion could actually save states money

The Wall Street Journal
Medicaid Is Worse Than No Coverage at All
New research shows that patients on this government plan fare poorly. So why does the president want to shove one in four Americans into it?
By Scott Gottlieb

New Jersey Policy Perspective
Expanding Medicaid Would Save New Jersey Billions of Dollars

Why Medicaid is a Humanitarian Catastrophe
Conjectured impact on health care spending

- Basic economics: Expanding health insurance will increase health care spending ("Moral hazard")
  - Insurance (by design) reduces the price individuals pay for their medical care
  - Economics 101: Demand increases as price decreases
  - Therefore newly insured will demand more medical care
- But, other points of view…

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Conjectured impact on health care spending

- Health insurance will not increase health care spending
  "The moral-hazard argument makes sense... only if we consume health care in the same way that we consume other consumer goods, and... this assumption is plainly absurd. We go to the doctor grudgingly, only because we're sick."
  Malcolm Gladwell “The Moral Hazard Myth” *(New Yorker 2005)*

- Health insurance will decrease health care spending
  Reduce inappropriate and inefficient use of (expensive) emergency rooms
  Improve health and therefore reduce health care use

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Possible benefits for health and financial security

- **Health**
  - Improvements in health through increased utilization

- **Financial security**
  - Consumption smoothing: reduced risk of large, out-of-pocket medical expenditures
Additional ambiguity when it comes to Medicaid

- Impacts of Medicaid on low-income uninsured may be much smaller than typical insurance impacts

Glass half full:
- Low-income uninsured already consume subsidized medical care through public health clinics and uncompensated care

Glass half empty: Medicaid is not “good” insurance
- Will make uninsured worse off in terms of access to health care…
The Value of Randomization

Randomized evaluations can provide clear answers
- Without knowing why two groups differ, hard to know what to attribute the differences to
  - Can get perverse “findings” (e.g. health insurance makes you sicker)
- Randomly assign individuals to different treatments (programs) or control (status quo continues)
  - By construction, the treatment group and the control group will have the same characteristics, on average
    - Observable: age, income, measured health…
    - Unobservable: motivation, social networks, unmeasured health…
- Ability to surprise us
Oregon Health Insurance Experiment

- Oregon’s Medicaid expansion program covers those financially but not categorically eligible for Medicaid
  - Low-income (below 100% of federal poverty line), uninsured, able-bodied adults
- Covers doctors, hospitals, drugs, mental health, etc. with no consumer cost sharing and low or no premiums
- In 2008: Oregon had money to cover some but not all of those eligible… so chose to run a lottery for fairness
  - Asked interested individuals to sign up
  - Randomly assigned ~30,000 out of 75,000 ability to apply for Medicaid
  - After about 2 years, find money to offer the remainder coverage.

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Unprecedented Opportunity

- To bring rigors of randomized trials to pressing domestic health policy question
  
  First RCT to study the impact of covering the uninsured

- Assembled a large research team
  
  Co-PI: Katherine Baicker (Harvard School of Public Health)
  Collaborators in academia, government, health care system…
  Results, protocols and survey instruments, and data are now publicly available: www.nber.org/oregon
Left No Data Stone Unturned…

- Administrative data (e.g. hospital discharge records, emergency room visits, credit reports, earnings) (~75,000)

- Mail surveys (sent to ~55,000 people)
  Questions on health care use, financial strain, self-reported health and well-being

- In-person interviews and physical health exams (~12,000)
  Clinical measures: blood pressure, cholesterol, blood sugar, etc.
  Detailed medication catalog
  Medical history (e.g. dates of diagnoses)

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Health Care Use: Probability of Hospitalization

Outcomes measured over an approximately 18 month period.

Control Mean
Control Mean plus Medicaid Effect
CI for Medicaid Effect

Hospital Discharge Data

Percent

Not Via Emergency Department

Via Emergency Department

All
Outcomes measured over an approximately 18 month period.
Is the Increase in ER Use a Puzzle?

- Ex ante the effect could have gone either way:
  - Medicaid makes ER free → more use
  - Medicaid makes doctor visit free → more use of docs, ? use of ER

- On net, we now know any “offset” from ER → doc does not dominate

- Is this because Medicaid doesn’t increase doctor use?
Health Care Use: Different Types

Mail Survey Data

- Any prescription drugs (Current)
- Any outpatient visits (Last 6 months)
- Number of Prescriptions (Current)
- Number of Outpatient visits (Last 6 months)

- Control Mean
- Control Mean plus Medicaid Effect
- CI for Medicaid Effect

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Health Care Utilization (summary)

- **Increased utilization**
  - 30% ↑ probability of hospital admission
  - 35% ↑ probability of outpatient visit
  - 15% ↑ probability of taking prescription drugs
  - 40% ↑ in number of ER visits
  - ↑ in compliance with recommended preventive care

- **Increased total health care spending**
  - 25% ↑ total, annual spending (hospital, outpatient, ER, drugs)
Probability of Collection

Credit Report Data

Outcomes measured over an approximately 18 month period.
Probability of Adverse Financial Event

Survey Data

- Any out-of-pocket medical expenses (Last 6 months)
- Outstanding medical debt (Current)
- Borrowed money/skipped bills for medical expenses (Last 6 months)
- Catastrophic expenditures (Approx. 18 months)

Percent

Control Mean
Control Mean plus Medicaid Effect
CI for Medicaid Effect

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Self-Reported Health

Mail Survey Data

- Control Mean
- Control Mean plus Medicaid Effect
- CI for Medicaid Effect
Clinical Health

Inperson Interview Data

Percent

Elevated blood pressure
High total cholesterol
Low HDL cholesterol
High Hemoglobin
Screen positive for depression

Control Mean
Control Mean plus Medicaid Effect
CI for Medicaid Effect
Diagnosis and Medication
Health Results: Discussion

- **Health benefits from Medicaid**
  - Improves self-reported health
  - Reduces depression (by ~9 pctg pts or 30%)
- **No detectable impact on blood pressure, cholesterol, or blood sugar**
  - Chosen because they are important, measurable health problems in this population and have been shown in clinical trials to be modifiable with effective treatment within our time frame
  - *Cannot* reject decline in blood sugar predicted by the effect we see on diabetes medication + clinical trials of effects of such medication
  - *Can* reject declines in blood pressure found in quasi-experimental Medicaid studies
Summary: Effects of Medicaid After 1-2 Years

- **Increased health care use across the board**
  - Hosp, ER, primary care, drugs, preventive care
  - ~25% ↑ total, annual spending (hospital, outpatient, drugs)
- **Reduced out-of-pocket costs and financial strain**
  - Virtually eliminated “catastrophic” out-of-pocket spending
  - No detectable effect on earnings and employment
- **Health**
  - Improved self-reported health
  - Reduced depression
  - No detectable effects on measured physical health
Extrapolating Beyond the Experiment

- Context quite relevant for health care reform
  - Population covered by Medicaid in our study basically the same as those covered by 2014 ACA expansion of Medicaid
- But important caveats to bear in mind:
  - Representativeness of Oregon / potential heterogeneity in treatment effects
  - Time pattern of effects (1-2 years vs. longer run)
  - Partial vs. general equilibrium effects (Finkelstein QJE 2007)
  - Voluntary vs. mandatory enrollment (Einav, Finkelstein et al., AER 2013)
Updating Based on Our Findings

• “Medicaid is worthless or worse than no insurance”
  Not true: Increases in utilization, perceived access and quality, reductions in financial strain, and improvement in self-reported health

• “Covering the uninsured will get them out of the Emergency Room”
  Not true: Medicaid increases use of ER (overall and for a broad range of visit types)

• “Health insurance expansion saves money”
  Not true in short run: increases in health care use
  In long run, remains to be seen: increases in preventive care and improvements in self-reported health
Tremendous Media Response

5 Things the Oregon Medicaid Study Tells Us About American Health Care
A landmark new study of Oregon's Medicaid program reveals what's wrong with American health care

Four Reasons Why The Oregon Medicaid Results Are Even Worse Than They Look

Does The Oregon Health Study Show That People Are Better Off With Only Catastrophic Coverage?

Here's what the Oregon Medicaid study really said

Is health insurance an antidepressant?
New findings show that wider coverage has one clear effect on the population, and it's not one that anyone is talking about.

Oregon's Lesson to the Nation: Medicaid Works

Medicaid Access Increases Use of Care, Study Finds

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First, if the benefit of health insurance is mostly or exclusively financial, then shouldn’t health insurance policies work more like normal insurance? Fire, flood and car insurance exist to protect people against actual disasters, after all, not to pay for ordinary repairs. If the best evidence suggests that health insurance is most helpful in protecting people’s
Beyond Oregon: Where do we go from here?

- Critical need for more randomized evaluations in domestic policy
- Oregon shouldn’t get so much media attention
- Randomized evaluations on health care policy ideally closer to norm than exception
  i.e. RCTs on how health care is delivered: Health insurance, increase use of “appropriate” care, care coordination…

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Use of RCTs in U.S. Health Care Delivery (Finkelstein and Taubman, *Science* 2015)

- **Limited use to date**
  - Search of top medical, economics, and health services journals
  - *18 percent of U.S. health care delivery interventions randomized*

- **Greater use of RCTs for U.S. medical interventions**
  - 80 percent of U.S.-based medical treatment studies randomized
  - True of both drug (86 percent) and non-drug (66 percent) interventions

- **Greater use of RCTs for other social policy**
  - 36 percent of U.S. education studies
  - 46 percent of international development studies

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Potential Challenges to Health Care RCTs

- **Ethics of rationing**
  Programs often oversubscribed, rolled out gradually, or initially tested with a pilot program

- **Time and cost considerations**
  RCTs need not, and often do not, add to costs of prospective research
  Randomizing who is offered program and following study population in administrative data can reduce recruitment and follow-up costs
  Yields causal estimates even without full take-up (adherence)
  Can deliver both “real-time” results for practitioners and long-term impacts

- **Ability to study reforms to entire system or area of care**
  Randomize across providers, care-setting, etc. (about one-fifth of existing RCTs)
  Some system-wide interventions can be studied via patient-level randomization (e.g. shared savings contracts)
Building on the Success of MIT's J-PAL

- MIT’s Abdul Latif Jameel Poverty Action Lab (J-PAL)
  - International thought leader in advancing the science and practice of randomized evaluations and disseminating resulting policy lessons
- Tremendous success in the international development field
  - 580+ on-going and completed RCTs in 63 countries
  - World-wide network of 100+ affiliated professors
  - Over ~4,000 people trained in use of RCTs
  - ~200 million people reached by policies found effective by J-PAL
  - Currently in Africa, Europe, Latin America, South Asia, and South East Asia
- J-PAL North America founded 2013!

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The J-PAL NA Team

Scientific directors: Amy Finkelstein (MIT) and Lawrence Katz (Harvard)
Executive Director: Quentin Palfrey (qpalfrey@povertyactionlab.org)
Deputy Director: Mary Ann Bates (mbates@mit.edu)
More at: www.povertyactionlab.org/north-america

US Health Care Delivery Initiative

Four-year initiative to support (technically and financially) RCTs on improving efficiency of health care delivery
Many innovative ideas on how to improve quality of care and reduce unnecessary costs
  Subject them to rigorous, randomized evaluation
  What works and why?

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Partner with providers who have innovative ideas and are committed to rigorous evaluation

Examples of RCTs in the field:

- Healthcare Hotspotting
  - With Dr. Jeff Brenner and the Camden Coalition of HealthCare Providers
  - Patient-level randomization of care management for “super-utilizers”

- Clinical Decision Support (CDS)
  - With Mt. Sinai Healthcare Systems in NYC (+ looking for additional sites)
  - Physician-level randomization of CDS for Outpatient Radiology Orders

- “Over-prescribing”
  - With White House SBST and CMS’s Center for Policy Integrity
  - Physician-level randomization of warning letters to “outlier prescribers”
Interested in getting involved?

• Post-graduation opportunities to apply your rigorous economics training to exciting research and real-world policy problems

• Broad range of topics: health care, education, labor markets, mobility, crime etc.

• For more information:
  • Visit our website: https://www.povertyactionlab.org/na