

# Economic Impacts of Medicaid Eligibility Expansions and Contractions

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# Medicaid: temporal variation

- Introduced in 1966
  - Staggered state adoptions
  - Five states in 1970
  - Alaska in 1972
  - Arizona in 1982
- Expanded 1984 – 87
  - Added (to AFDC eligibles) people of similar circumstances
- Expanded further 1987 onward
  - Raised income levels and covered all children below poverty line

# Variation across States

- Pattern of initial permission to states to expand followed by mandates to cover
- Variation in income limits, ages of children covered
- Reimbursement levels
- Asset tests
- Waivers for experiments in managed care
- Benefit packages under CHIP

# Variation Allows Learning

- Difference in difference
- Suppose that after Medicaid's introduction, an outcome improved
  - Causal inference is unconvincing because other events occurred during the period
- If a group is eligible in, say CT, but not in WI, then compare health outcome before and after Medicaid in the two states
  - Take the difference
  - Attribute it to Medicaid
  - All other effects work the same in the two states

# Eligibility Limits

- Regression discontinuity
- Compare people just below and just above limit (approximately identical)
- Attribute health outcome to Medicaid

# Complicated Laws

- Instrumental variables
- Suppose a health outcomes differs in two states
  - Causal inference unconvincing because people are not the same in each state
- Take a representative sample of the U.S. population
  - Apply it to the different states
  - Compute fraction eligible and use as the explanatory variable
  - Removes differences in characteristics of population across states

# Oregon Experiment

- Limited expansion of Medicaid, drawing 30,000 from applicant pool of 90,000
- Randomized experiment, in part design by Amy Finkelstein
- Information on health care service consumption, various measures of health and labor supply

# Questions about Medicaid Expansions

- Crowding out: to what extent does the expansion replace private insurance
- Work effort: how is work effort affected by Medicaid eligibility
- Health care: how is the consumption of health care services affected
- Health outcomes:
- Long run impact



# Crowding Out - ACA

- Comparing non-expansion and expansion states

	Parents	Childless Adults
Medicaid	+23 to 54%	+54 to 70%
Uninsured	- 8 to 13%	- 9 to 15%
Private	- 0 to 5%	- 1 to 5%

- Another similar paper finds zero crowding out from the entire ACA bill
- Earlier studies find larger effects

# Work Effort - Tennessee

- Tennessee (1994) converted Medicaid to managed care and used the savings to open up program to “uninsured and uninsurable” individuals
- In 2005 the state cut off coverage to 170,000 adults
  - Earlier reverification probably limited population to high demanders of health care
- Substantial increase in labor supply and private health insurance among affected
  - Especially those childless adults working at least 20 hours/week
  - And those over 40

# Work Effort - Oregon

- Winning the lottery and enrolling in Medicaid results in no statistically significant change in earnings or hours of work
  - 3% lower probability of a job, \$195 less in earnings
- Why the difference with Tennessee?
  - Poorer population
  - Worse economic conditions at time of experiment
  - Tennessee population comprised especially high health insurance demanders

# Work Effort – Medicaid Expansions

- Compared individuals in expansion and non-expansion states
  - Also, among both expansion and non-expansion states, compared those that had a previous expansion
- Found little or no significant impact on labor supply
  - If anything, work effort increased

# Health Care and Health

- Significantly more pre-natal care
  - Eligibility reduces probability of going without care in the first three month by 50%
  - More use of procedures, such as fetal monitoring
- Some positive effects on health
  - Infant mortality
    - 1979-92: 30% increase in eligibility caused a 8.5% decrease
  - Reduced incidence of low birth weight

# Oregon Experiment – Health care services

- More use of medical care
  - prescription drugs, more office visits,
  - \$1172 more expense
- More preventive care
  - mammographies, pap smears, PSA tests
- Higher satisfaction
  - Have a doctor
  - Receive all needed care
  - Care is of high quality

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

Variable	Mean Value in Control Group	Change with Coverage
Utilization (no. of visits or medications)		
Current prescription drugs	1.8±2.8	0.66 (0.21)
Office visits in past 12 mo	5.5±11.6	2.70 (0.91)
Outpatient surgery in past 12 mo	0.1±0.4	0.03 (−0.03)
Emergency department visits in past 12 mo	1.0±2.0	0.09 (−0.23)
Hospital admissions in past 12 mo	0.2±0.6	0.07 (−0.03)
Estimate of annual health care spending (\$)‡	3,257.3	1,171.63 (199.4)
Preventive care in past 12 mo (%)		
Cholesterol-level screening	27.2	14.57 (7.09)
Fecal occult-blood test in persons ≥50 yr	19.1	1.26 (−9.4)
Colonoscopy in persons ≥50 yr	10.4	4.19 (−4.2)
Flu shot in persons ≥50 yr	35.5	−5.74 (−19.1)
Papanicolaou smear in women	44.9	14.44 (2.64)





# Oregon Experiment – Health Outcomes

- No significant impact on hypertension, high cholesterol, blood pressure
- Reduced depression (increased use of meds)
- Increased diagnosis of diabetes (increased use of meds)

Elevated (%)‡	16.3	-1.33 (-7.16 to 4.49)	0.65
Hypertension			
Diagnosis after lottery (%)§¶	5.6	1.76 (-1.89 to 5.40)	0.34
Current use of medication for hypertension (%)§	13.9	0.66 (-4.48 to 5.80)	0.80
Cholesterol**			
Total level (mg/dl)	204.1±34.0	2.20 (-3.44 to 7.84)	0.45
High total level (%)	14.1	-2.43 (-7.75 to 2.89)	0.37
HDL level (mg/dl)	47.6±13.1	0.83 (-1.31 to 2.98)	0.45
Low HDL level (%)	28.0	-2.82 (-10.28 to 4.64)	0.46
Hypercholesterolemia			
Diagnosis after lottery (%)§¶	6.1	2.39 (-1.52 to 6.29)	0.23
Current use of medication for high cholesterol level (%)§	8.5	3.80 (-0.75 to 8.35)	0.10
Glycated hemoglobin			
Level (%)	5.3±0.6	0.01 (-0.09 to 0.11)	0.82
Level ≥6.5% (%)††	5.1	-0.93 (-4.44 to 2.59)	0.61
Diabetes			
Diagnosis after lottery (%)§¶	1.1	3.83 (1.93 to 5.73)	<0.001
Current use of medication for diabetes (%)§	6.4	5.43 (1.39 to 9.48)	0.008
Depression			
Positive screening result (%)‡‡	30.0	-9.15 (-16.70 to -1.60)	0.02
Diagnosis after lottery (%)§¶	4.8	3.81 (0.15 to 7.46)	0.04
Current use of medication for depression (%)§	16.8	5.49 (-0.46 to 11.45)	0.07
Framingham risk score (%)§§			
Overall	8.2±7.5	-0.21 (-1.56 to 1.15)	0.76
High-risk diagnosis	11.6±8.3	1.63 (-1.11 to 4.37)	0.24
Age of 50–64 yr	13.9±8.2	-0.37 (-2.64 to 1.90)	0.75

# Long run impacts on health

- Impact of Medicaid's origin
  - Chronic conditions index: high blood pressure, heart disease, type II diabetes, obesity
  - Significant reduction in index for adults (age 25 to 54) exposed to Medicaid as children (age 0 to 5)
  - Reduced adult mortality (345,000 lives saved) 1980 to 1999
  - Reduced adult disability

# Long-run impact on government budget

- Increased work and tax liability in adulthood (\$294 per year)
- Reduced experience with transfer programs, e.g. EITC (\$590 per year)
- Government earns a 7% rate of return
  - Ignoring the impact on the health and well-being of the recipients
- Another study finds tax collections of \$0.56 per dollar of expenditure