Does Medicaid Save Lives

08/27/2021

Broader Question

- Is the demand for health care and services downward sloping for older individuals?
- How does Medicare affect health care usage and health stock?

Some previous findings

- Oregon Medicaid study, Rand health insurance experiment
- Correlational findings are hampered by unobserved differences between insured and uninsured, young versus old individuals

- The approach of this study is to implement a RD design
- *The severity of illness moves smoothly at age 65, but what changes is the eligibility determined by age 65. This creates a discontinuous jump in access to Medicare.*

Medicare eligibility

- 65 or older, American citizen, worked at least 10 years in covered employment
- Medicare part A: Free
- Medicare part B: available for a modest premium

Potential channels through which Medicare might improve health

1. Those not previously insured receive insurance through Medicare
2. Those previously insured may have additional benefits after receiving Medicare.

RD approach

$$y_i = f(a_i, \alpha) + \beta Post65_i + \epsilon_i$$

- y_i is health related outcome for patient i
- $f(.)$ is a continuous function at age 65
- $Post65_i$ is an indicator whether the patient as passed his or her 65th birthday
- Assumption is that assignment to either side of the discontinuity threshold is as good as random
- If looking at health outcomes, this poses a threat because people who wait to get admitted until they are 65 and once they receive Medicaid are selected group
- other concerns: age 65 as the retirement age

Focus on subset who are admitted to ER

- to solve the slection problem
- require immediate hospitalization; so cannot self-select

Data

- California hospitals; patients discharged between January 1 1992 and December 31, 2002
- patient need to admitted
- discharged data include demographic variables (race, sex, zip code of residence), medical information, whether the admission was planned or unplanned
- link the discharge file with mortality file

Data

- critical step is to select a subset of patient whose hospital admissions is independent of insurance status
- use admission diagnoistic codes (ICD-9) that have similar admission rates through the ED on weekends and weekdays
- *For example, if admission for a given diagnosis code were equally likely on a weekend and on a weekday, then weekend admissions should constitute $2/7 = 0.29$ of total admissions for that diagnosis.*
- These admissions are nondeferrable and their admission is not determined by their insurance status

Results

- Insurance: Figure I (page 21), Table III (page 30)
- Mortality: Figure VI (page 26)