The Long-Term Impacts of Medicaid Exposure in Early Childhood
Michel Boudreaux, Ezra Golberstein, Donna McAlpine
Division of Health Policy & Management, University of Minnesota

Research Objectives

To measure the impact of exposure to Medicaid in early childhood (age 0-5) on adult health and economic status (age 18-54)

Background

The Long Arm of Childhood
- Poor health in early life is associated with life-long disease risk and reduced economic outcomes.
- Health services in childhood (NICU, vaccines, antibiotics) improve health and economic outcomes into adulthood.

Medicaid
- Medicaid increases access to health services and could relieve financial strain on families.
- Previous work has found medium-run effects on health and schooling outcomes.

Data and Setting

Setting
- The staggered introduction of Medicaid across the states which mainly occurred between 1966 and 1970.
- Medicaid’s introduction created plausibly exogenous variation in cumulative exposure to Medicaid. Exposure is a function of birth state, birth year, and the economic circumstance of birth family.

Data
- 1968-2009 Panel Study of Income Dynamics
- We select a sample of adults (from 1999-2009) for which we observe childhood characteristics. N= 11,621 person-years.

Outcome Measures
- Adult health is defined using a composite index of self-reported chronic conditions.
- Adult economic status is measured using composite index of economic characteristics.

Methods

Medicaid Adoption by Quarter (1966-1982)

\[ y_{inst} = \lambda \text{MCAIDSHARE}_{at} + \beta X_{inst} + \phi Z_{inst} + \rho x + \delta_{i} + Y_{s} + (Y_{i} \times t) + e_{inst} \]

- \( y_{inst} \) is a health or economic outcome, for person i at adult interview year n, born in state s and year t. MCAIDSHARE is a continuous measure of Medicaid availability in the early childhood period. X is vector of demographic controls, Z is a vector of state-by-year policy controls, p are interview year fixed effects, \( \delta_{i} \) are birth year fixed effects, y are state of birth fixed effects, and \( Y_{i} \times t \) are state specific trends in birth cohort. Identification comes from a generalized difference-in-differences framework.

Results

Table 1. The Long-Term Impacts of Medicaid in Early Life

<table>
<thead>
<tr>
<th>Chronic Condition Index</th>
<th>High Impact (&lt;150% FPL)</th>
<th>Low Impact (Placebo) 175-300% FPL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coef.</td>
<td>SE</td>
<td>Coef.</td>
</tr>
<tr>
<td>Chronic Condition Index</td>
<td>-0.36*</td>
<td>0.17</td>
</tr>
<tr>
<td>Economic Index</td>
<td>-0.11</td>
<td>0.21</td>
</tr>
</tbody>
</table>

- Exposure to Medicaid in childhood reduces the prevalence of chronic conditions in adulthood. Exposure to Medicaid from conception to age 6 reduces the probability having one chronic condition by 0.42.
- The lack of an effect for groups that were unlikely to participate in Medicaid lends support to our study design
- Findings for economic outcomes are inconclusive.

Study Limitations

- Results are robust to alternative specifications and I can rule out desegregation and selective migration as alternative explanations.
- Statistical inferences are robust to alternative variance estimation.
- While we used several strategies to rule out omitted variable bias, it remains the most important threat to validity.

Conclusions & Policy Implications

- Results suggest that the benefits of public insurance coverage for low-income children extend beyond contemporaneous measures of health and financial risk. We find health benefits that last decades into the future. This speaks both to the cost-benefit trade-offs of Medicaid and to broader insurance expansions included in the ACA.
- The condition index results were mainly driven by high blood pressure, which aligns with the average age of the sample at follow-up (32) and with previous research on the long-term impacts of other early childhood interventions.
- Our estimates on economic impacts were imprecisely estimated and inconclusive. However, larger gains to adult health over adult economic status agrees with studies of the long-run impacts of poor childhood health.
- Approximately 5.8 million (7.5%) children under 19 lack coverage as do 1.3 million (5.6%) children under 6 (as of 2012). The benefit of covering these children could well extend into the future.

Contact Information

Michel Boudreaux, MS
PhD Candidate
State Health Access Data Assistance Center
Division of Health Policy & Management
University of Minnesota
E-mail: boudr019@umn.edu