The Consequences of (Partial) Privatization of Health Insurance for Individuals with Disabilities: Evidence from Medicaid

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Social health insurance programs in the U.S have undergone rapid privatization in recent years.
Privatization in Medicaid

- Privatization almost complete in terms of enrollment
- But just getting started in terms of $$
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This paper: Medicaid managed care among the disabled

In this paper, we study the consequences of the (partial) privatization of Medicaid benefits for the disabled (SSI) population

Why the disabled?

• Disabled (SSI) population are least healthy group of Medicaid enrollees
  – 13.5% of enrollment, 40% of Medicaid spending

• Allows us to get better picture of effects of privatization on healthcare
  – General Medicaid population (moms and kids) likely affected by privatization but difficult to observe due to low average healthcare use

• Also the group for which privatization question is currently most relevant
  – Portion in private plan increased from 25% in 2006 to over 50% in 2012

• What do we do?
  – Combine natural experiments (county-level introduction/mandates) in Texas and New York with rich administrative claims and enrollment data
  – Clean difference-in-differences variation in MMC implementation
1. Background: MMC Program Features
# Medicaid Managed Care (MMC) Program Features

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<th>Program Features</th>
<th>Texas</th>
<th>New York</th>
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<tr>
<td>Start Date</td>
<td>February 2007</td>
<td>Varied by county between 2007 and 2009</td>
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<td>Plan Payment</td>
<td>Fixed monthly premiums for each enrollee</td>
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<td>Plan design</td>
<td>Fixed (minimal) cost-sharing Plans set up provider networks and negotiate prices</td>
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<td>Carve-outs</td>
<td>Inst'l LTC (all) Inpatient (disabled only) Drugs (all)</td>
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<td>FFS drug coverage</td>
<td>3 drugs per month prescription cap relaxed under MMC</td>
<td>No restrictions</td>
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<td>FFS payment rates</td>
<td>39th out of 50 states</td>
<td>40th out of 50 states</td>
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Texas MMC Roll-out

- Treatment counties in Travis, Harris, Bexar, Nueces services areas
- Control counties contiguous to treatment counties
- MMC rolled out in February 2007; roll-out was sharp and significant
New York MMC Roll-out

- Treatment counties: MMC rolled out AND contiguous to county in same service area without MMC
- Control counties: contiguous to treatment counties in same service area
- MMC introduced in January 2007; gradually mandated throughout 2009; messy, use to validate TX results
2. Data and Empirical Strategy
Data and Sample

• Data:
  – 2004-2010 Medicaid Analytic eXtract (MAX) from CMS
  – Beneficiary characteristics and enrollment Information
  – Comprehensive claims data (inpatient, outpatient, Rx)
  – Covers everyone in FFS Medicaid and in Medicaid managed care

• Sample:
  – Construct (unbalanced) individual panel
  – Restrict to individuals:
    • Enrolled in Medicaid
    • Disabled
    • Not in Medicare
    • Over 21
    • Not in MMC prior to February 2007
Population is sick (especially for Medicaid)
Empirical approach

- Identification based on timing of exogenous switch from FFS to MMC in “treatment” counties; compare to contiguous control counties
- Difference-in-differences
- Control for individual fixed effects in most analyses
- Control for service area-by-year fixed effects
- Event study:

\[ Y_{it} = \beta_0 + \sum_{t=2004}^{2010} \beta_t \text{Treat}_{it} + \alpha_{st} + \gamma_i + \epsilon_{it} \]

- Incomplete takeup motivates IV:

\[ \text{Private}_{it} = \delta_0 + \delta_1 \text{Treat}_{it} \times \text{Post}_t + \alpha_{st} + \gamma_i + \eta_{it} \]

\[ Y_{it} = \theta_0 + \theta_1 \text{Private}_{it} + \alpha_{st} + \gamma_i + \psi_{it} \]
3. Results
Healthcare spending rose (Texas)

- MMC caused higher realized spending: Almost 20% by 2010
- For services for which we observe both MMC and FFS payments, prices are similar
- Suggests spending increase was due to quantity, not prices
Drug utilization increased

- IV: 27% spending increase; 26% days supply
- No overall extensive margin (any drugs) effects; but strong class-specific extensive margin effects
- No effect in New York
Log Rx spending by therapeutic type

**Texas**
- Central Nervous System
- Cardiovascular Agents
- Anti-Infective Agents
- Hormones & Synthetic Subst
- Gastrointestinal Drugs
- Autonomic Drugs
- Blood Form Coagul Agents
- Misc Therapeutic Agents
- Antineoplastic Agents
- Immunosuppressants

**New York**
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Reasons for the increase in Rx use

3 features can potentially explain drug result

• Drug cap (TX)
• Drug carve-out (TX and NY)
• Shift to MMC for medical benefits (TX and NY)

Recall:

• Large effect of privatization on drug use in TX
• No effect in NY
Drug utilization rose most for those constrained by the drug cap

- Suggests relaxing drug caps are responsible for increase in drug spending
- Important to note that drug caps are a feature of many FFS Medicaid programs; not a feature under MMC
Log inpatient spending fell (Texas)

- Mostly through extensive margin (reduction in admissions)
- All driven by reduction in non-surgery admissions
- Even larger decrease in New York
Inpatient drop driven by fewer mental health admissions (both TX, NY)

Texas

New York

- PQI: Also find reductions in admissions related to asthma, but not COPD or CHF
Outpatient utilization rose

- IV: 14% spending increase; 8 day increase (baseline 28); similar in NY
- No extensive margin (any outpatient days)
- Coding changes make it difficult to decompose
Conclusion

- Find that privatization of Medicaid for SSI beneficiaries raised spending, but increases are consistent with quality improvements
- No obvious stinting/quality deterioration
- Suggests privatization of health insurance for this complex population does not do harm, and may be beneficial
  - Costs more money, but that money goes to providers/patients (not plans)
  - Some state FFS plans ration care to SSI beneficiaries to control costs
- Features of both the public and private programs matter when considering consequences of privatization → consequences may vary by state
- Next steps: examine effects on SSI outcomes—employment and mortality