Evaluating Prescription Drug Subsidies for Diabetics

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Policy Background
- Medicare’s Part D Low-Income Subsidy (LIS) reduces drug co-pays and caps out-of-pocket costs for low-income beneficiaries
- The LIS has strict eligibility thresholds based on household income (135% and 150% of the Federal Poverty Level) and assets
- These thresholds generate sizable differences in expected out-of-pocket drug costs below vs. above 135% and 150% of FPL

Motivation
- Rising drug prices are putting increased financial strain on individuals with chronic diseases such as diabetes
- Since 2006, out-of-pocket costs for insulin have doubled
- Rising out-of-pocket costs for prescription drugs may impede medication adherence and lead to poor health outcomes for diabetic patients

Outcomes and Analyses
- Primary outcomes:
  - Total out-of-pocket drug spending
  - Medication adherence
  - Cost-related medication non-adherence
  - Hospital admissions related to diabetes
- Separate analyses will be conducted for insulin and oral diabetes medications
- Secondary analysis for will be conducted beneficiaries with co-morbid hypertension and hyperlipidemia

Potential Impact
- Our study will provide evidence to policymakers on the impact of high out-of-pocket drug costs for low-income diabetics
- This is relevant because several states and insurers are considering limits on out-of-pocket costs for insulin products
- The results will also demonstrate whether reforms to the LIS could improve medication outcomes among individuals most sensitive to rising drug costs

Data and Methods
- Data from Health and Retirement Survey linked to Medicare claims (5 waves, 2006-2016)
- Regression discontinuity (RD) design:
  - Exploits abrupt reductions in subsidies at LIS thresholds among those who are otherwise minimally different
  - Mimics a “randomized trial” within the vicinity of LIS thresholds
  - Allows us isolate the effects of differences in out-of-pocket drug costs at these thresholds with patients’ health outcomes

Project Goals
- Publication in a peer-reviewed journal and presentation at scientific conferences
- Catalyze collaborative research program between researchers in Pitt’s Schools of Pharmacy and Public Health
- Generate preliminary data for an R21 or R01 grant proposal
- Support research training opportunities for one PhD student and an undergraduate at Pitt

Cost-sharing responsibilities per prescription for Medicare Part D enrollees by LIS status, 2019

<table>
<thead>
<tr>
<th></th>
<th>Full LIS (&lt;135% FPL)</th>
<th>Partial LIS (135-150% FPL)</th>
<th>No LIS (&gt;150% FPL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deductible</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Co-insurance</td>
<td>$1.25 - $8.50*</td>
<td>$83</td>
<td>$415</td>
</tr>
<tr>
<td>Catastrophic</td>
<td>$0</td>
<td>$3.40 - $8.50**</td>
<td>$5%</td>
</tr>
</tbody>
</table>

Estimated out-of-pocket cost of filling a one-month prescription of Lantus insulin by LIS status, 2019

<table>
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<tr>
<th></th>
<th>Full LIS (&lt;135% FPL)</th>
<th>Partial LIS (135-150% FPL)</th>
<th>No LIS (&gt;150% FPL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deductible</td>
<td>$0.00</td>
<td>$143.45</td>
<td>$432.75</td>
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<tr>
<td>Co-insurance</td>
<td>$3.80</td>
<td>$72.90</td>
<td>$121.50</td>
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<tr>
<td>Catastrophic</td>
<td>$0.00</td>
<td>$8.50</td>
<td>$24.30</td>
</tr>
</tbody>
</table>

For generic drugs, $1.25 with income below 135% FPL; $3.40 above 135% FPL. For brand name drugs, $3.80 with income below 135% FPL; $8.50 above 135% FPL. Note: Catastrophic phase is when total spending that counts as out-of-pocket is between deductable amount and catastrophic threshold of $5,100. We use estimated cost for Lantus of $124 per vial assuming twice per one-month prescription filled at beginning of each phase.

Prescription drug subsidies for low-income Medicare beneficiaries cap out-of-pocket costs for insulin and other drugs used by diabetics.

We will employ quasi-experimental methods to examine the effects of caps on out-of-pocket costs on beneficiaries’ mediation adherence and diabetes-related health outcomes.