

Do Small Copays Matter?

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Medicare eliminated copayments for some low-income recipients in 2012.

Low-income patients typically pay small, but non-zero copays for Part D drugs.

One exception: Institutionalized Medicaid recipients have paid no copays since 2006.

2012: Copays removed for Medicaid “Home & Community-Based Services” recipients

- Reason: HCBS substitutes for institution, so patients should get same drug price.

Empirical design overview:

[Details](#)

- Flag institutionalized, HCBS, and other dual eligibles in 2010 and 2011.
- Merge to claims data from 2010-2013 and run an event study.

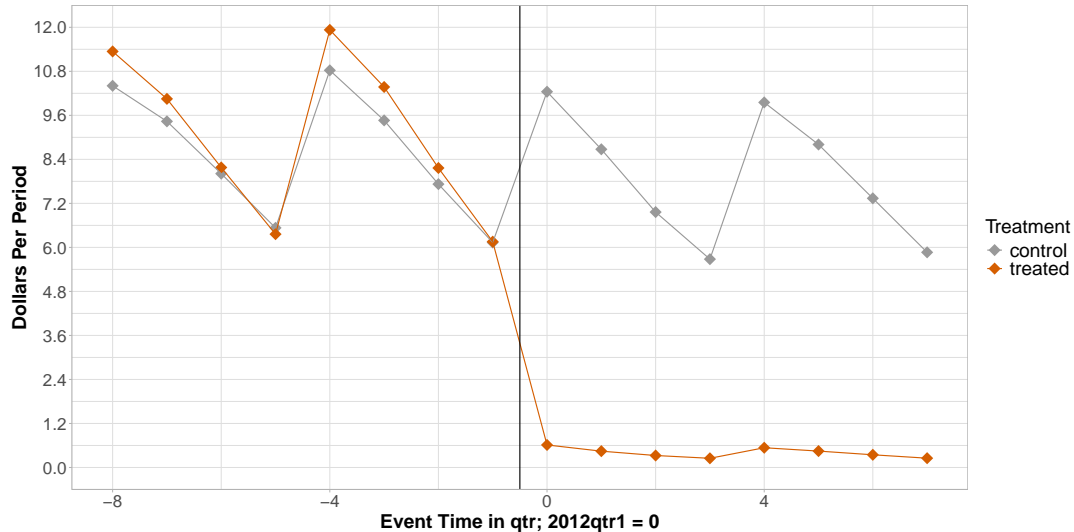
Treated: Patients w/ HCBS in 2010 & 2011 **Control:** Other non-inst. dual eligibles

Issue #1: Policy affected **all** HCBS patients at same time; they differ from non-HCBS.

Issue #2: Currently require patients be alive through study period (not innocuous!).

- Currently leaning hard on parallel trends and propensity score weighting.
- Planning to leverage across-state variation in HCBS eligibility rules.

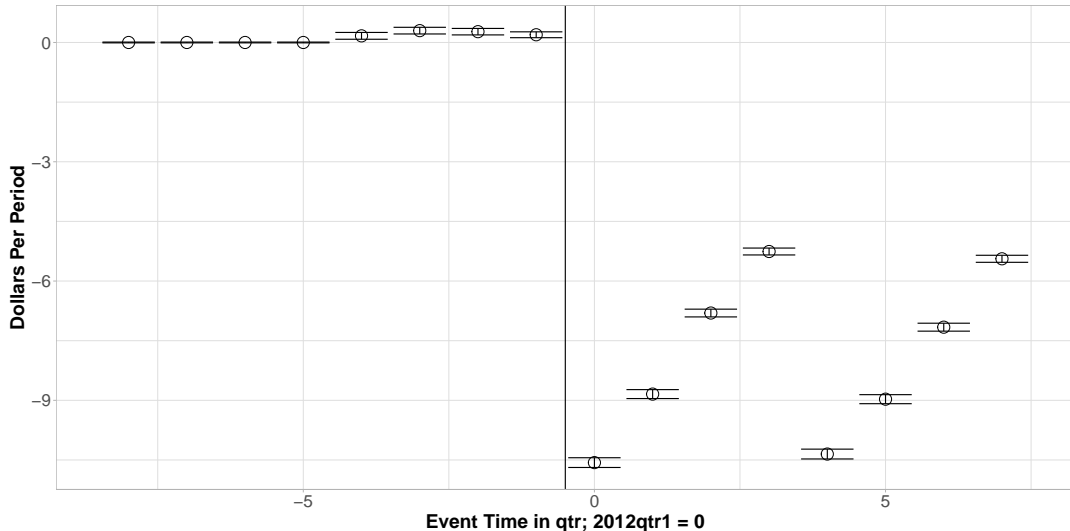
“First stage”: Policy reduced avg. copays for HCBS patients by \$8/Month.



Raw Treated and Control Patient Spending Per Quarter

LIS Amt

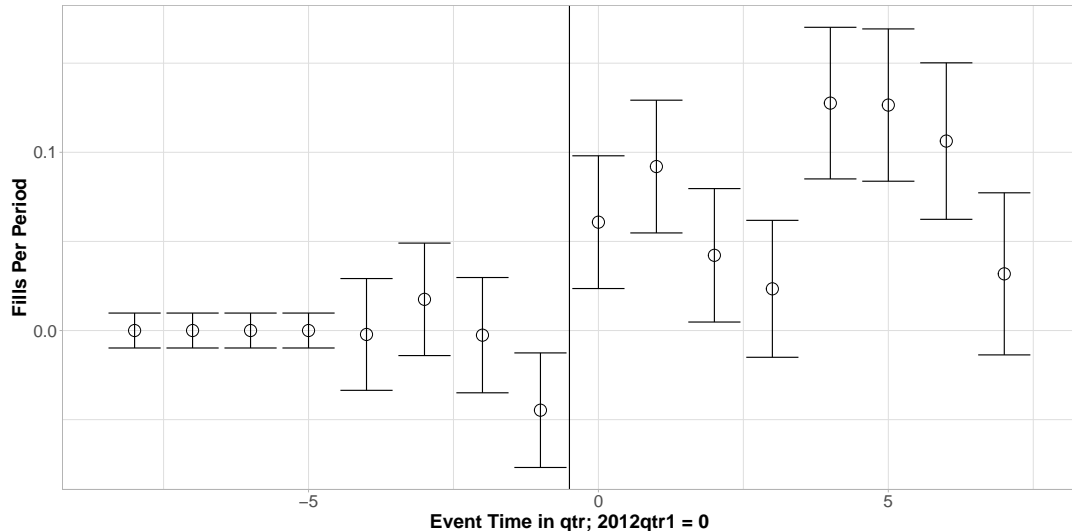
“First stage”: Policy reduced avg. copays for HCBS patients by \$8/Month.



Event Study of Patient Spending Per Mon (Qtr-of-Year Residualized)

LIS Amt

Eliminating copays increased drug fills by $\sim 1.5\%$.

[Raw](#)[Days Supply](#)

Event Study of Drug Fills Per Mon w/IPW; pre-period mean = 6.86.

Low-income patients respond even to small copayments.

Research on patient responses to drug copays rarely focuses on low-income patients.

- They face low copays and are not impacted by most sources of policy variation.

LIS patients may still be more responsive to copay chg. vs. non-LIS, despite low base.

- 1.5% increase in fills with \$8 copay reduction $\rightarrow \sim 0.2\%$ /dollar or $\sim \$80$ /fill.
- Comparisons to estimates for higher-income patients:
 - Chandra et al. (2010): \$31-32/fill for HMOs, \$130-300/fill for PPOs
 - Choudhry et al. (2011, heart drugs): \$86-197/fill
- Prev. showed that LIS respond more to non-price costs. Same holds for prices.

Still many to do:

1. Issue: I argue LIS patients face the listed copays, but there is controversy.
2. Keep working to ID more similar control group (e.g., across-state variation).
3. Splits by drug and outcomes/spillovers to other types of care (as for closures).
4. Mechanisms: Is this a price effect or behavioral response to free vs. non-free?

Sample selection:

- Require patients stay alive, despite likely diff. in death rates across treatment.
- Requiring HCBS use in both 2010 & 11 for treateds helps address mean reversion.
 - Don't want to focus on short-term HCBS users (likely temp. health shock).
- Two years of pre-period (2010-2011); two years post (2012-2013).

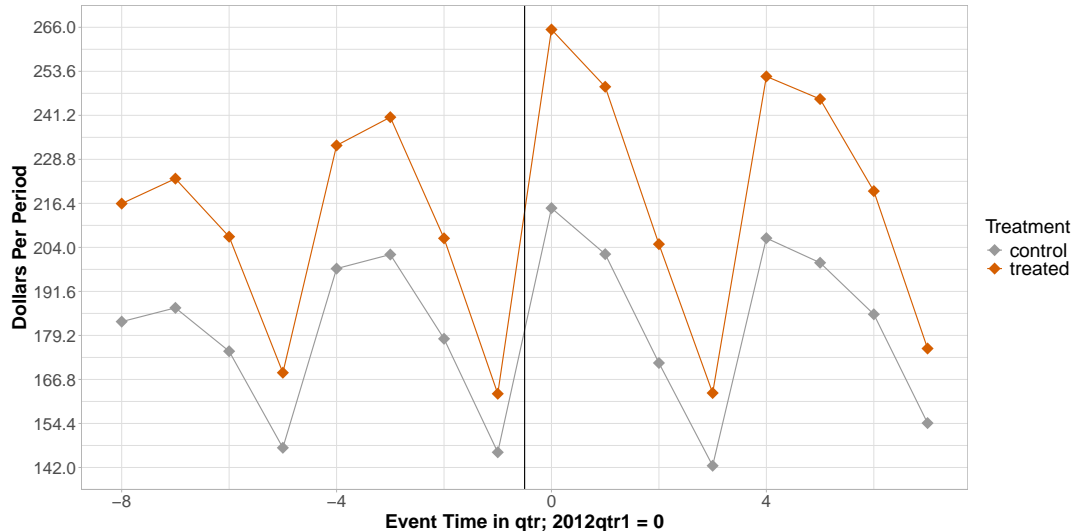
Propensity score weighting: (regressors below, plus all second-order interactions)

$$\text{treated}_i = \gamma_0 + \gamma_1 \text{agebin}_i + \gamma_2 \text{sex}_i + \gamma_3 \text{white}_i + \sum_{j \in \{1, \dots, 27\}} \nu_j \text{cc}_{ij} + \epsilon_i$$

Econometric specification: (μ_{qoy} is a quarter-of-year fixed effect)

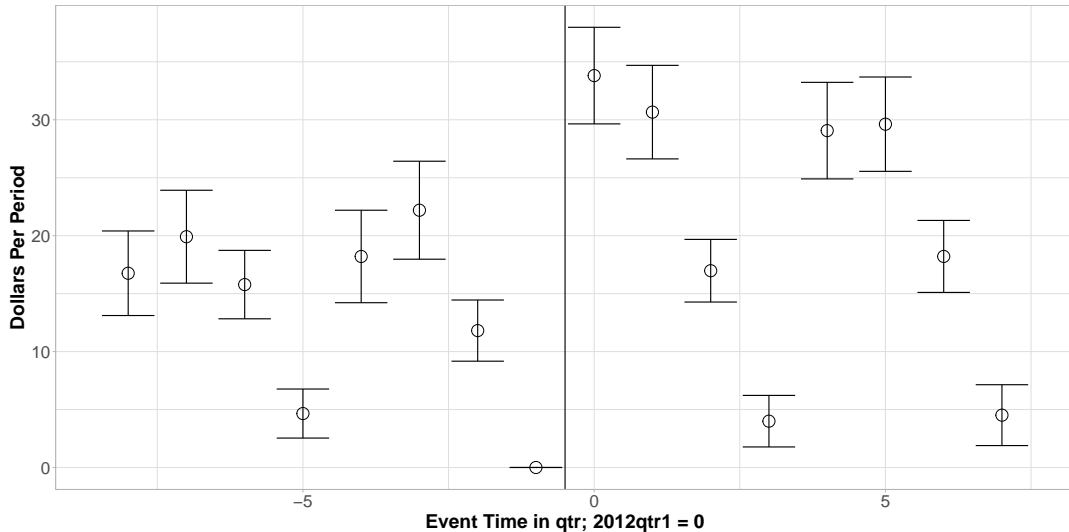
$$Y_{it} = \delta \text{treated}_i + \sum_{\tau \notin \{-8, \dots, -5\}} D_t^\tau + \sum_{\tau \notin \{-8, \dots, -5\}} \beta^\tau D_t^\tau \times \text{treated}_i \\ + \mu_{qoy} + \mu_{qoy} \times \text{treated}_i + \epsilon_{it}$$

Medicare low-income subsidy spending has opposite trend as copays.



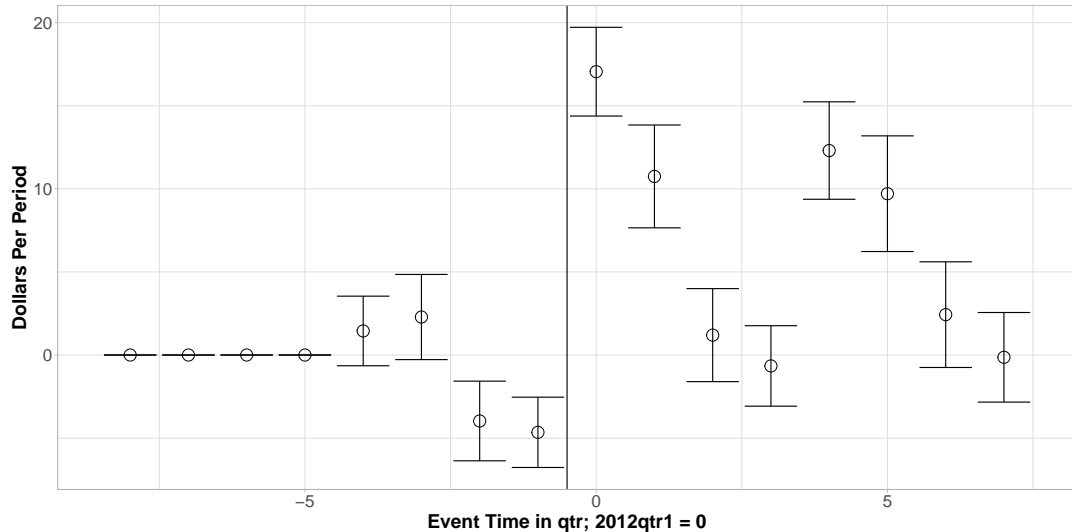
Raw Treated and Control Medicare Low-Income Subsidy Spending Per Month

Medicare low-income subsidy spending has opposite trend as copays.



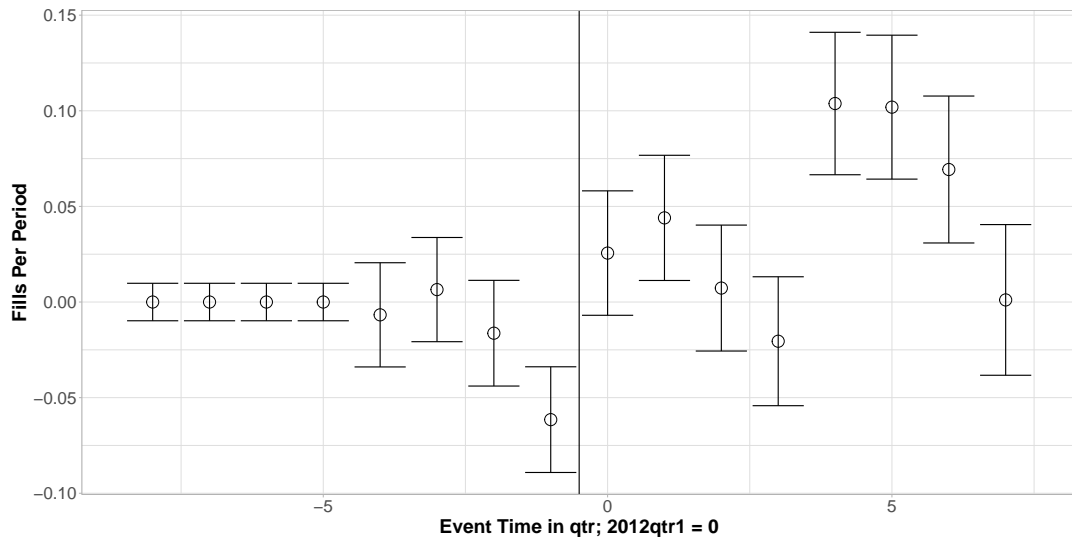
Event Study of Medicare Low-Inc. Subsidy Spending Per Month

Medicare low-income subsidy spending has opposite trend as copays.



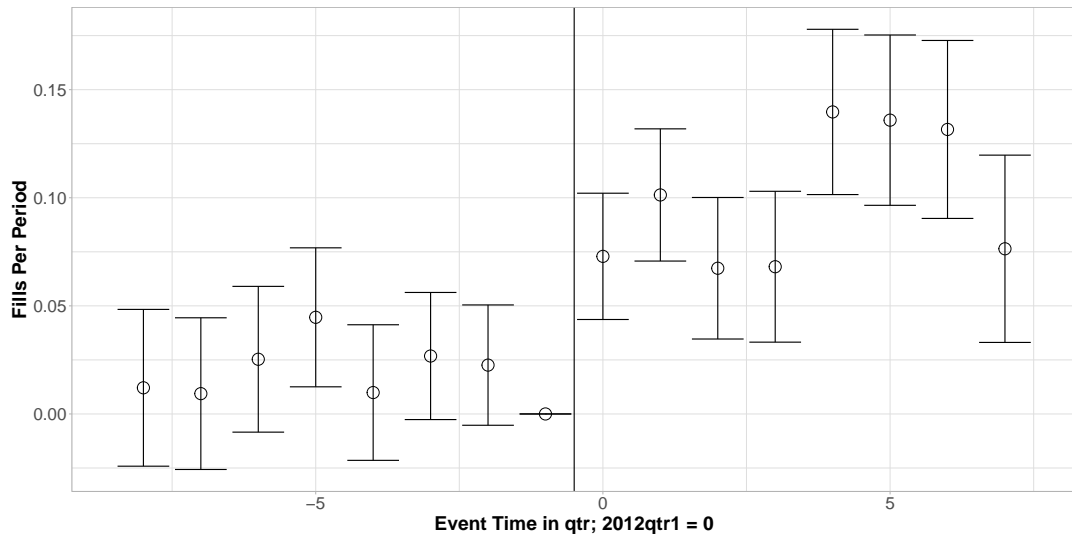
ES of Medicare Low-Inc. Subsidy Spending Per Mon (Qtr-of-Year Residual)

Impact of eliminating copays on fills (alt. specifications).



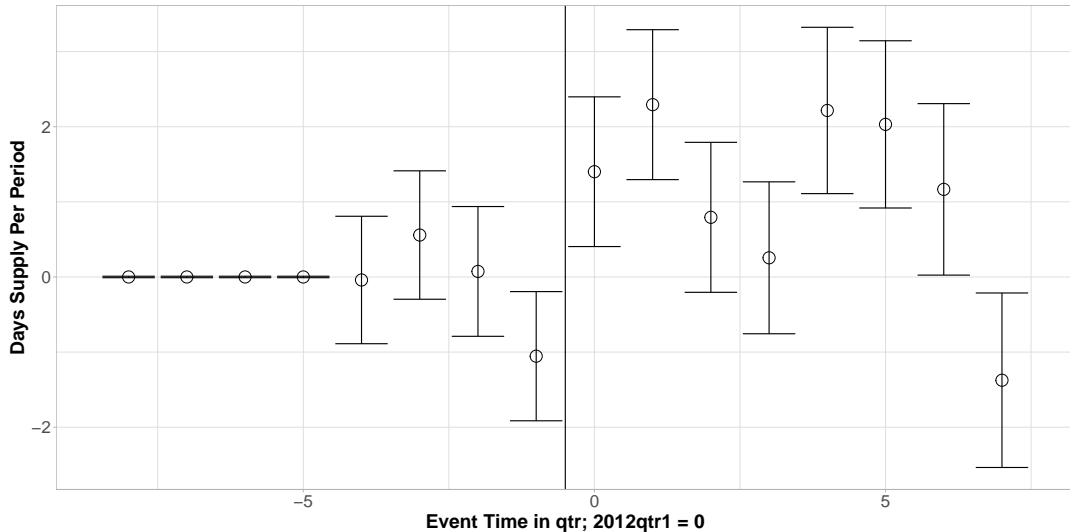
Event Study of Drug Fills Per Mon w/o IPW

Impact of eliminating copays on fills (alt. specifications).



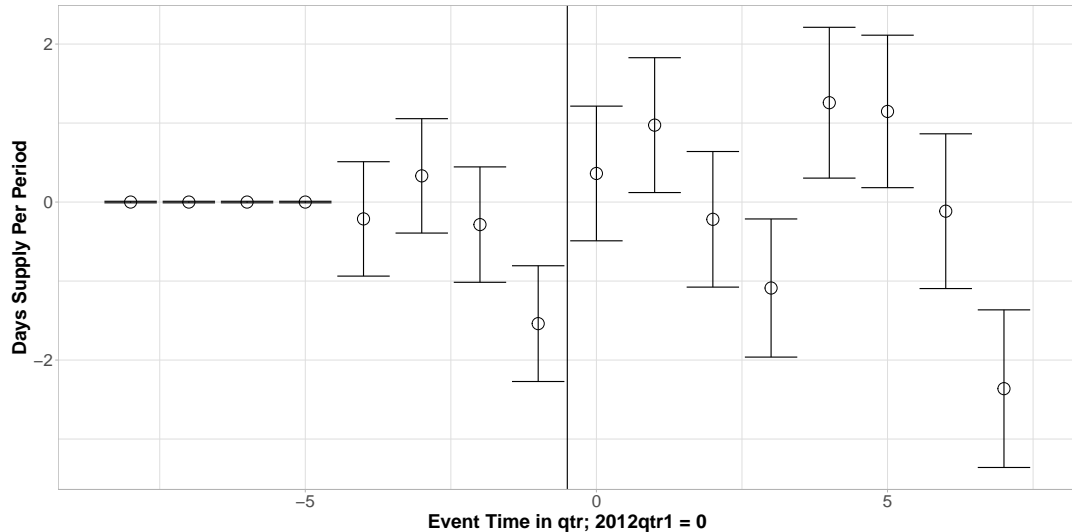
Event Study of Fills Per Mon, Qtr-of-Yr Not Residual

Impact of eliminating copays on drug days supply.



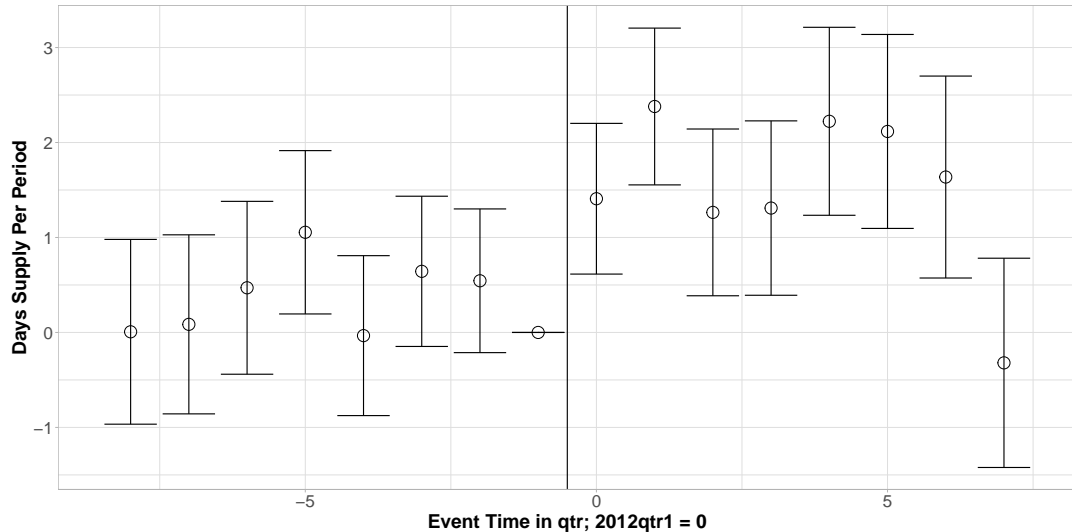
ES of Drug Days Supply Per Mon w/IPW; pre-period mean = 188 \rightarrow +0.6% effect.

Impact of eliminating copays on drug days supply.



ES of Drug Days Supply Per Mon w/o IPW (null effect)

Impact of eliminating copays on drug days supply.



ES of Days Supply Per Mon, Qtr-of-Yr Not Residual