**Background**
- Pharmacy Benefit Managers (PBMs) are intermediaries that negotiate prices with manufacturers on behalf of payers. But conflicts of interest surround PBMs’ role.
- PBMs impose a “gag” clause forbidding pharmacists from telling consumers when cash price is lower than cost-sharing.
- Cost-sharing can be higher than cash price due to high list prices. The difference- ‘claw back’ - is said to be captured by the PBM.
- In a 2016 survey of community pharmacists, 58.1% of respondents reported that the gag clause in their contracts affected at least 10 or more transactions in the past month.
- Besides media reports, little empirical evidence on gag clauses exists to date.

**Objective**
- To estimate the frequency in which patients pay higher copay compared to pharmacy price
- To identify the most commonly involved drugs (“gag suspects”)
- To examine characteristics of “gag suspects” drugs

**Methods**
- We used two datasets to evaluate patient cost-sharing and pharmacy price at the National Drug Code (NDC) level.
  - a. Patient-level cost was sourced from IBM Truven Marketscan (2014-2015). Transactions included copayment, coinsurance, and dispensing fee.
  - b. Pharmacy prices were estimated based on acquisition costs from the National Drug Acquisition Cost (NDC) Dataset and dispensing fees (since Nov 2013).
- Drug characteristics were retrieved from Redbook (2016).
  - The following variables were generated:
    - a. Cost sharing= copayment + coinsurance → indicator of patient’s OOP copay
    - b. Total cost= NADAC + dispensing fee → Indicator of the true cash price
    - Since commercial dispensing fee may be subsidized (pharmacy charges lower dispensing fee and makes more on price spread), we stratified results by additional thresholds.
  - c. Number of times the patient pays higher copay for drug (ie, total number of “Patient Worse Off” at drug level) → Stratified by 5 levels of patient worse off: >$0, $0-$10, $10-$20, $20-$30, >$30
  - d. Number of times the patient pays higher copay for product (ie, total number of “Patient Worse Off” at the product (NDC desc) level)
  - e. Weight variables= n/ times patients pay higher copay for drug/n# fills per NDC
  - Descriptive statistics and a Generalized Linear Regression Model (GLM) were run to address the research objectives.

**Results**

### Table 1: Sample Characteristics

<table>
<thead>
<tr>
<th>Variable</th>
<th>2014 n=109,845</th>
<th>2015 n=104,925</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freq (%)</td>
<td>Freq (%)</td>
<td></td>
</tr>
<tr>
<td>Patient Worse Off Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PTX_WORSE_20_TOT</td>
<td>44,094 (40.14%)</td>
<td>39,717 (37.85%)</td>
</tr>
<tr>
<td>PTX_WORSE_10_TOT</td>
<td>45,589 (41.24%)</td>
<td>41,783 (39.64%)</td>
</tr>
<tr>
<td>PTX_WORSE_5_TOT</td>
<td>75,739 (85.50%)</td>
<td>68,583(65.30%)</td>
</tr>
<tr>
<td>PTX_WORSE_1_TOT</td>
<td>92,933 (94.39%)</td>
<td>87,658 (85.68%)</td>
</tr>
<tr>
<td>Drug type</td>
<td>98,024/97,999</td>
<td>97,999/97,999</td>
</tr>
</tbody>
</table>

#### Drug Type

- **Multisource generic**
  - Multisource brand, generic (1) .472***(.460-.484)
  - Multisource brand, no generic (2) .150***(.139-.161)

#### Therapeutic Group

- **Cardiovascular**
  - Multisource brand, generic (1) .472***(.460-.484)
  - Multisource brand, no generic (2) .150***(.139-.161)

#### Discussion & Future Directions

- **Our study provides empirical evidence to suspect the gag rule is widely exercised. Among drug types, generic drugs seem to be especially involved.**
- In almost 37% of drug fills made in 2015, patients were made worse off by the copay more than by $30. In 2014, patients were made worse off by the copay more than by $30 in almost 40% of transactions.
- **Multisource generic category is significantly associated with increased odds of weight_NDC, compared to every other drug type**
- **Drugs for Primarily Acute indications have significantly increased odds of weight_NDC, compared to Primary Care drugs.**
- **Future work should involve validating results of “gag suspects” drugs with local pharmacies and a group of clinicians.**

**Acknowledgments**
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**References**