How Well Are PBM Markets Functioning?

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April, 2022
I. Pharmaceutical Distribution System Refresher
The flow of money through the pharmaceutical distribution system

2017

THE FLOW OF MONEY THROUGH THE PHARMACEUTICAL DISTRIBUTION SYSTEM

Pharmacies may be mail order or retail, and may be integrated with PBM. Plan sponsors may include employers, unions, managed care orgs, among others.
Intermediaries capture $41 of every $100 spent on retail prescription drugs

Flow of a hypothetical $100 expenditure on prescription drugs covered under private insurance through the US retail distribution system

<table>
<thead>
<tr>
<th>Category</th>
<th>Passed Through Distribution System</th>
<th>Captured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Expenditure</td>
<td>$100</td>
<td>$19</td>
</tr>
<tr>
<td>Insurers Keep</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PBMs Collect</td>
<td>$81</td>
<td>$5</td>
</tr>
<tr>
<td>PBMs Keep</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pharmacies Collect</td>
<td>$76</td>
<td>$15</td>
</tr>
<tr>
<td>Pharmacies Keep</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wholesalers Collect</td>
<td>$60</td>
<td>$2</td>
</tr>
<tr>
<td>Wholesalers Keep</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturers Collect</td>
<td>$58</td>
<td>$58</td>
</tr>
<tr>
<td>Manufacturers Keep</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Are these returns “excessive”? 

**Average Excess Adjusted Returns, 2013-2018**

<table>
<thead>
<tr>
<th>Sector</th>
<th>Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P 500</td>
<td>3.6%</td>
</tr>
<tr>
<td>Pharma</td>
<td>1.7%</td>
</tr>
<tr>
<td>Biotech</td>
<td>9.6%</td>
</tr>
<tr>
<td>Insurers, Pharmacies and PBM</td>
<td>5.9%</td>
</tr>
<tr>
<td>Wholesalers</td>
<td>8.1%</td>
</tr>
</tbody>
</table>
II. What’s really going on with insulin prices?
Insulin-specific analysis possible with new data

Share of manufacturer rebates on diabetes drugs passed to insurers

Average spread on brand name drugs
Money flows from insulin distribution

Original Investigation
Estimation of the Share of Net Expenditures on Insulin Captured by US Manufacturers, Wholesalers, Pharmacy Benefit Managers, Pharmacies, and Health Plans From 2014 to 2018
Karen Van Nuys, PhD; Rocio Ribero, PhD; Martha Ryan, BS; Neeraj Sood, PhD

co-authors:
Rocio Ribero,
Martha Ryan,
Neeraj Sood
Different price measures

- **List Price**
- **Net Price**

Diagram showing the flow of costs and payments between different stakeholders:

1. Wholesaler pays manufacturer to acquire product
2. Manufacturer pays PBM rebates for formulary placement
3. Manufacturer redeems copay coupons to pharmacy
4. Manufacturer pays wholesaler prompt-pay discounts and distribution fees
5. Manufacturer pays administrative fees to PBM
6. Manufacturer pays fees and discounts to pharmacy
7. PBM passes a share of rebates to health plan
8. Health plan reimburses PBM for prescriptions
9. PBM reimburses pharmacy for prescriptions filled
10. Pharmacy pays wholesaler to acquire product
11. Patient pays copayment to pharmacy
12. Patient pays premium to health plan
**Insulin prices are...?**

### Mean List Price, Net Price and Net Expenditure on Insulin, per 100 mL, 2014-2018

<table>
<thead>
<tr>
<th>Year</th>
<th>List Price (WAC)</th>
<th>Net Price</th>
<th>Net Expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>$19.60</td>
<td>$10.53</td>
<td>$9.76</td>
</tr>
<tr>
<td>2015</td>
<td>$23.27</td>
<td>$16.16</td>
<td>$9.00</td>
</tr>
<tr>
<td>2016</td>
<td>$25.19</td>
<td>$15.57</td>
<td>$8.26</td>
</tr>
<tr>
<td>2017</td>
<td>$26.27</td>
<td>$15.35</td>
<td>$7.29</td>
</tr>
<tr>
<td>2018</td>
<td>$27.45</td>
<td>$15.59</td>
<td>$7.10</td>
</tr>
</tbody>
</table>

- List prices are rising
- Net prices are falling
- Expenditures are stable
Who benefits?

Average Distribution of $100 in Insulin Expenditure Across Distribution System Participants, 2014-2018

2014-2018 Change:
- Health Plans: -25%
- PBMs: +157%
- Pharmacies: +229%
- Wholesalers: +76%
- Manufacturers: -33%
Summary

- Pharmaceutical pricing and money flows are complicated and hard to disentangle (intentionally)
- Everyone profits from the sale of insulin—manufacturers, wholesalers, pharmacies, PBMs and health plans
- Interpret the word “price” carefully
- Net expenditures per 100mL of insulin were stable in our sample
- The distribution of expenditures was not
  - Manufacturers’ share declined 33%
  - Pharmacies, PBMs and wholesalers’ share, taken together, increased 162%
- By 2018, over half of insulin expenditures were going to intermediaries

PBM\textsuperscript{s} have won price concessions from manufacturers, but have not passed them on to patients
IV. What can be done about it?
Potential Policy Solutions

➢ Enforce anti-trust laws in key market segments

➢ Encourage alternative PBM models (e.g. fully transparent, not-for-profit)

➢ Create full transparency within the distribution system

➢ Pass manufacturer rebates through to patients at the point of sale

➢ Restrict PBMs to fixed-fee (rather than percent-of-price) contracts