The Contribution of Changes in Drug Mix and Price Growth to the Rising Costs of Brand-Name Drugs in Medicare Part D

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For information about the meeting, see www.appam.org/conference-events/fall-research-conference/the-power-of-inclusion/.
Disclaimer and Acknowledgments

The information presented here is preliminary and is being circulated to stimulate discussion and critical comment.

This presentation has not been subject to CBO’s regular review and editing process. The views expressed here should not be interpreted as CBO’s.

I am grateful to Yash Patel (formerly of CBO) and Joshua Varcie for research assistance, and to Ru Ding for programming assistance.

For related work, see Congressional Budget Office, Prices for and Spending on Specialty Drugs in Medicare Part D and Medicaid (March 2019), www.cbo.gov/publication/54964.
Study Objectives

Examine growth in net spending and average net prescription costs for brand-name specialty drugs in Medicare Part D from 2015 to 2019 and compare it with growth over the 2010–2015 period.

Examine changes in net per-enrollee and per-user spending on brand-name specialty drugs in Medicare Part D from 2010 to 2017. ¹

¹ Because data for 2019 are incomplete, the per-enrollee and per-user analysis ends in 2017.
Brand-name specialty drugs accounted for an increasing share of net Part D spending from 2010 to 2019.

Net price growth was slower over the 2015–2019 period than over the 2010–2015 period.

Net price growth was the primary driver of increased average costs of a prescription for a brand-name specialty drug from 2015 to 2019. In contrast, increased use of more-expensive drugs was the primary driver from 2010 to 2015.

Price growth for brand-name specialty drugs over the two analytical periods was more closely aligned when drugs that treat Hepatitis C were excluded.

Overall, per capita and per-user spending on brand-name specialty drugs continued to increase from 2015 to 2017, but at a slower rate than occurred over the 2010–2015 period.
### Data

**Medicare Part D:** Beneficiary-level claims data for the entire Part D population and confidential data on manufacturers’ rebates and other discounts by drug for the 2010–2019 period.

**IQVIA** (formerly IMS Health): List of specialty drugs on the market in 2015.

**Red Book:** Drug characteristics, including an active ingredient identifier and a brand/generic identifier by National Drug Code.
Defining and Identifying Specialty Drugs

CBO used a definition of specialty drugs that was developed by the IQVIA Institute for Human Data Science.¹

By that definition, a specialty drug treats a chronic, complex, or rare condition and has at least four of the following seven characteristics:

- Costs at least $6,000 per year,
- Is initiated or maintained by a specialist,
- Is administered by a health care professional,
- Requires special handling in the supply chain,
- Is associated with a patient payment-assistance program,
- Is distributed through nontraditional channels (such as a specialty pharmacy), or
- Requires monitoring or counseling.

We used those criteria to identify which new drugs (entering the market between 2016 and 2019) are specialty drugs.

¹ IQVIA is a private company that provides data services and health care analysis.
Methods

Calculate net Part D spending, the number of standardized 30-day prescriptions, and average net prices for all brand-name drugs.

Classify drug status along two dimensions: new/older and specialty/nonspecialty.

Merge data for different years at the drug level to analyze changes in prices and composition of use.¹

Decompose increases in average net prescription costs into contributions from:
- Price increases,
- Changes in the mix of drugs on the market at the beginning of the analytical period, and
- The introduction of new drugs.

Calculate year-over-year price increases for the 2015–2019 period and compare with the 2010–2015 period.

¹. Drugs are defined on the basis of product name, dosage form, route of administration, and strength.
Net per capita spending on brand-name specialty drugs continued to increase from 2015 to 2019, but at a slower rate. Similarly, overall net spending on brand-name specialty drugs increased from $33.6 billion in 2015 to $46.8 billion in 2017. (Net spending was $9.4 billion in 2010.)

<table>
<thead>
<tr>
<th>Year</th>
<th>Specialty</th>
<th>Nonspecialty</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>330</td>
<td>850</td>
<td>1,990</td>
</tr>
<tr>
<td>2015</td>
<td>1,110</td>
<td>1,030</td>
<td>2,140</td>
</tr>
<tr>
<td>2019</td>
<td>1,030</td>
<td>1,910</td>
<td>2,940</td>
</tr>
</tbody>
</table>

Source: Author’s analysis of Medicare Part D claims data, as well as data on discounts and rebates.
Share of Net Part D Spending and Standardized Prescriptions Attributable to Brand-Name Specialty Drugs

Source: Author’s analysis of Medicare Part D claims data, as well as data on discounts and rebates.
## Average Net Cost of a Brand-Name Prescription for Specialty and Nonspecialty Drugs Over the 2010–2019 Period in Medicare Part D

**2019 Dollars**

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Brand-Name Specialty Drugs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All drugs</td>
<td>1,400</td>
<td>3,820</td>
</tr>
<tr>
<td>Older drugs(^a)</td>
<td>1,400</td>
<td>2,740</td>
</tr>
<tr>
<td>New drugs(^b)</td>
<td>n.a.</td>
<td>8,930</td>
</tr>
<tr>
<td><strong>Brand-Name Nonspecialty Drugs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All drugs</td>
<td>139</td>
<td>176</td>
</tr>
<tr>
<td>Older drugs(^a)</td>
<td>139</td>
<td>171</td>
</tr>
<tr>
<td>New drugs(^b)</td>
<td>n.a.</td>
<td>224</td>
</tr>
</tbody>
</table>

Source: Author’s analysis of Medicare Part D claims data, as well as data on discounts and rebates.

n.a. = not applicable.

\(^a\) Older drugs are those on the market at the beginning of each analytical period. \(^b\) New drugs are those that were introduced during an analytical period.
Decomposing Changes in the Average Prescription Price of Brand-Name Specialty Drugs in Part D Over the Two Analytical Periods

Source: Author’s analysis of Medicare Part D claims data, as well as data on discounts and rebates.
Average Annual Increase in Retail and Net Prices for Brand-Name Drugs in Part D for Two Analytical Periods

Source: Author’s analysis of Medicare Part D claims data, as well as data on discounts and rebates.
Discounts and Rebates as a Share of Retail Spending on Brand-Name Drugs in Part D

Source: Author’s analysis of Medicare Part D claims data, as well as data on discounts and rebates.
### Comparing Net Price Growth for Brand-Name Specialty Drugs Over Two Periods, With and Without Drugs That Treat Hepatitis C

<table>
<thead>
<tr>
<th>Percent</th>
<th>2010 to 2015</th>
<th>2015 to 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Original Analysis</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compound annual growth rate of the price of a prescription</td>
<td>22.3</td>
<td>2.7</td>
</tr>
<tr>
<td>Average annual year-over-year price growth</td>
<td>5.8</td>
<td>2.5</td>
</tr>
<tr>
<td><strong>Excluding Drugs That Treat Hepatitis C</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compound annual growth rate of the price of a prescription</td>
<td>18.1</td>
<td>14.3</td>
</tr>
<tr>
<td>Average annual year-over-year price growth</td>
<td>7.0</td>
<td>4.1</td>
</tr>
</tbody>
</table>

Source: Author’s analysis of Medicare Part D claims data, as well as data on discounts and rebates.
Annual Spending on Brand-Name Specialty Drugs Among Medicare Part D Enrollees Who Used Such Drugs in 2010, 2015, and 2017

<table>
<thead>
<tr>
<th>2010 Dollars</th>
<th>2010</th>
<th>2015</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per-user spending, all enrollees</td>
<td>13,020</td>
<td>35,690</td>
<td>35,990</td>
</tr>
<tr>
<td>Per-user spending, enrollees without cost-sharing support</td>
<td>10,100</td>
<td>39,180</td>
<td>41,670</td>
</tr>
<tr>
<td>Per-user out-of-pocket costs, enrollees without cost-sharing support</td>
<td>2,010</td>
<td>3,780</td>
<td>3,850</td>
</tr>
</tbody>
</table>

Source: Author’s analysis of Medicare Part D claims data, as well as data on discounts and rebates.
Discussion

Spending and average cost growth for brand-name specialty drugs continued to increase after 2015, albeit at a slower rate.

- Slower growth was partly driven by the pricing and volume dynamics for drugs that treat Hepatitis C.

Average cost growth fell substantially for brand-name nonspecialty drugs.

- Year-over-year prices fell, on average, for brand-name nonspecialty drugs from 2015 to 2019.

Per-enrollee net spending in Part D has largely held steady in recent years.¹

- Growing use of generic drugs offset increases in prices for brand-name drugs.
- Future increases in prices for brand-name specialty drugs might have a greater impact on Part D spending growth.