Special Communication

Estimating Rebates and Other Discounts Received by Medicare Part D

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Abstract

IMPORTANCE Spending in Medicare Part D continues to increase. Yet, studies of Medicare Part D are plagued by a common limitation: none can fully account for confidential rebates and other discounts that drug manufacturers and pharmacies pay to Medicare Part D plans.

OBJECTIVES To review existing methods and to propose an approach for estimating rebates and other discounts received by Medicare Part D.

EVIDENCE REVIEW Publicly available data from the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds, the Centers for Medicare & Medicaid Services, the Medicare Payment Advisory Commission, the Congressional Budget Office, the Government Accountability Office, and the Office of Inspector General.

FINDINGS Existing methods for estimating rebates and other discounts in Medicare Part D have several limitations. This analysis used an approach that aims to improve on those methods. Based on this approach, estimated discounts on brand-name drugs increased in Medicare Part D from 25.4% of gross brand-name spending in 2014 to 37.3% in 2018. There was substantial variation between classes, with estimated 2016 discounts surpassing 50% for some drugs (eg, ophthalmologic and gastrointestinal tract agents) while remaining below 10% for others (eg, antineoplastic and immunologic agents). Between 2014 and 2018, estimated net Medicare Part D spending on prescription drugs increased by 21% from $99 billion to $119 billion. With increasing enrollment, estimated annual net spending per beneficiary remained stable, increasing by just 3% from $2622 to $2694, which was below the 6% rate of inflation during the same period.

CONCLUSIONS AND RELEVANCE Models that fail to properly account for increasing rebates and other discounts will overestimate Medicare Part D expenditures. Rigorous and transparent methods for estimating discounts are critical for understanding patterns in spending and developing new cost-containment strategies.


Introduction

Medicare Part D spending represents nearly one-third of retail prescription drug spending in the US. Researchers have examined a variety of strategies to limit spending, including international reference pricing, direct price negotiation, and substitution of less expensive but therapeutically equivalent products. Studies modeling the effects of such policy changes on Medicare Part D spending have a common limitation: none can fully account for confidential rebates or other discounts that drug manufacturers and pharmacies provide to Medicare Part D plans.

This challenge has worsened in recent years as confidential discounts have increased. Although such discounts partially offset gross Medicare Part D expenditures—which increased from $121 billion in 2014 to $168 billion in 2018—the extent of savings, particularly for specific drugs, is

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obscured by the secrecy of negotiations. Legislative efforts have attempted to address this problem by requiring more detailed public reporting of Medicare Part D discounts but have largely been unsuccessful. The Trump administration pursued a rule, now on hold and being litigated, that would eliminate Medicare Part D rebates altogether. These initiatives have come amid broader pushes by the federal government and many state governments to increase drug-pricing transparency in commercial markets. However, postdiscount net drug prices remain opaque.

To avoid overestimating spending, studies of Medicare Part D often incorporate estimated discounts into their models. Although these efforts may help improve our understanding of spending, they have relied on heterogeneous methods and have yielded a range of results. No consensus has emerged for how to handle confidential Medicare Part D discounts. We therefore sought to review existing methods and to develop an approach that builds and improves on these methods.

Our review and analysis proceeds in 5 parts. First, we provide a brief overview of how Medicare Part D uses rebates and other discounts to reduce spending. Second, we explore 4 different strategies for estimating discounts in Medicare Part D, each of which relies on publicly available data. Although all 4 approaches have strengths and weaknesses, we argue that the fourth method, dubbed the brand-name summed-discounts approach, best captures the range of discounts received by Medicare Part D. In the third section, we compare this approach to estimates from the SSR Health database, a proprietary drug-pricing source. The fourth section explores how the brand-name summed-discounts approach applies to specific drug classes. Finally, in the fifth section, we consider trends in net spending based on our proposed model. We do not attempt to provide a method for estimating discounts on individual Medicare Part D drugs because no publicly available data exist for doing so. Instead, we offer researchers and policy makers a shared framework for incorporating mean estimates of confidential discounts into studies of Medicare Part D spending.

**Defining Terms in Medicare Part D Spending**

Under Medicare Part D, the federal government pays plan sponsors to provide prescription drug coverage for beneficiaries. These payments are made as risk-adjusted monthly installments, and at the end of each calendar year, payments are reconciled with actual drug expenses so that the claims submitted by plan sponsors match final Medicare expenditures. The spending reported by plans to Medicare, which are recorded in the Prescription Drug Event file, include all spending by plans (or their pharmacy benefit managers [PBMs]) and beneficiaries. The Centers for Medicare & Medicaid Services (CMS) publicly report aggregate gross spending by drug (eTable 1 in the Supplement) but withhold information on discounts, a term that we will use to encompass all money reimbursed to Medicare Part D plans by manufacturers or pharmacies to offset drug costs without reducing "list" prices paid at the point of sale (eFigure 1 in the Supplement).

There are 2 broad categories of discounts in Medicare Part D: direct and indirect remuneration and statutory manufacturer coverage gap discounts. Direct and indirect remuneration includes manufacturer rebates (which represented 92% of all direct and indirect remuneration in 2016), pharmacy-related price concessions (7%), and "other" discounts (<1%) (eFigure 2 in the Supplement). Manufacturer rebates refer to payments made by drug manufacturers to Medicare plans or PBMs for prescription drugs after the point of sale, typically to secure favorable placement on a tiered formulary. Pharmacy-related price concessions refer to payments made by pharmacies to Medicare plans or PBMs and include expenditures to secure participation in a plan’s preferred network, penalties for failing to meet certain performance measures, and reconciliation to ensure that final payments match target reimbursement rates in pharmacy contracts. The third and final category of direct and indirect remuneration encompasses a wide variety of price reductions (eg, cash discounts, legal settlement fees, and goods in kind) but represents only a small fraction of overall discounts.
Medicare Part D plans must report all direct and indirect remuneration to Medicare, including any amounts retained by PBMs. The Government Accountability Office (GAO) found that PBMs pass nearly all direct and indirect remuneration through to Medicare Part D plans (retaining just 0.3% of total direct and indirect remuneration in 2016, or 0.05% of gross spending). Researchers have raised the concern that PBMs may classify certain discounts as service fees rather than direct and indirect remuneration and retain these discounts as profits. Although such misclassification would obscure the true magnitude of manufacturer discounts, it does not obscure the magnitude of discounts actually received by Medicare plans because these mislabeled discounts retained by PBMs still represent costs incurred by Medicare.

Coverage gap discounts are statutorily required price reductions on brand-name drugs that manufacturers must provide while beneficiaries are in the coverage gap (ie, “the donut hole”). Beneficiaries reach the coverage gap when drug costs in a given year exceed a specified threshold (eg, $4130 in 2021) but before reaching the threshold for catastrophic coverage. During this phase of the Medicare Part D benefit, beneficiaries historically paid higher out-of-pocket costs. In an effort to “close” the coverage gap, the Affordable Care Act in 2012 shifted part of the cost to manufacturers by creating mandatory coverage gap discounts. Similar to direct and indirect remuneration, these discounts (previously 50%, now 70%) offset spending but are categorized separately by CMS.

Methods for Estimating Medicare Part D Discounts That Rely on Publicly Available Data

Net-to-Gross Methods
One way that researchers have tried to estimate Medicare Part D discounts is through a net-to-gross method. Discounts in this method are equal to 1 minus the quotient of net Medicare Part D spending divided by gross spending. This approach uses reports from the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds (henceforth Medicare Trustees Reports) to determine government expenditures as an approximation of net Medicare Part D spending. The presumption is that discounts are responsible for the difference between net spending and gross spending. This method gives discounts of 36.0% (2014), 34.8% (2015), 31.9% (2016), 35.3% (2017), and 43.7% (2018) (eTable 2 in the Supplement).

However, there are several limitations to this approach. First, it does not account for reconciliation payments. When expenditures exceed plan bids in a given year, Medicare Part D makes payments to plans the following year. Although these reconciliation payments are typically only a fraction of overall spending, they can still be sizable. For example, because of the emergence and subsequent widespread use of expensive new drugs used in the treatment of hepatitis C virus infections in 2014, Medicare paid plans $11 billion in reconciliation payments in 2015 and $10 billion in 2016. Failure to account for these reconciliation payments leads to an overestimation of discounts in some years and an underestimation in others. Second, the net-to-gross method does not account for beneficiary cost sharing, which is included in gross spending reported by CMS but not net spending in the Medicare Trustees Reports.

We can revise the net-to-gross method to correct for these limitations by relying on net spending on an incurred (rather than cash) basis, which is provided in the actuarial methods section of the Medicare Trustees Reports, and by incorporating beneficiary cost sharing, which is provided separately by CMS. Net spending on this revised approach is equal to plan spending on an incurred basis plus patient cost sharing. This sum is then divided by gross spending, and the quotient is subtracted from 1 to arrive at an estimate of discounts. The revised net-to-gross method gives discounts of 20.8% (2014), 23.7% (2015), 25.7% (2016), 28.6% (2017), and 32.0% (2018). A comparison of trends using the original and revised net-to-gross methods is shown in Figure 1A.

Two additional limitations of the net-to-gross method, however, cannot be easily overcome. First, many Medicare Part D beneficiaries have supplemental insurance that reduces out-of-pocket spending. Researchers can request individual-level Prescription Drug Event data from CMS, which
includes third-party payments, but to our knowledge, no governmental agency has publicly released aggregated summaries of these payments. Because some proportion of the difference between gross and net spending represents third-party payments rather than discounts, even the revised net-to-gross method will tend to overestimate discounts. Second, net spending in the Medicare Trustees Reports includes certain sums that Medicare pays plans for administrative expenses and profits, but such sums are excluded from gross spending in the Prescription Drug Event data (because they are separate from the prices paid for prescription drugs). Unlike the previously noted problem, this problem leads to an underestimation of discounts.

**Rebates in the Medicare Trustees Reports**

An alternative method for estimating discounts relies directly on reported “rebate” figures in the Medicare Trustees Reports. However, until recently, these reports did not specify exactly which discounts were included, noting only that “rebates” referred to “manufacturer rebates and concessions paid by pharmacies after point of sale.” In 2020, the Medicare Trustees Report made clear that prior figures for “rebates” referred to all direct and indirect remuneration. Thus, based on the Medicare Trustees Reports, the percentage of gross spending paid to Medicare Part D as direct and indirect remuneration was 14.3% (2014), 18.3% (2015), 19.9% (2016), 21.9% (2017), and 25.0% (2018). The problem with relying on these figures alone is that they exclude manufacturer coverage gap discounts.

![Figure 1. Estimated Medicare Part D Discounts for Brand-Name and Generic Drugs, 2014-2018](image)
Combining Direct and Indirect Remuneration With Coverage Gap Discounts

A third method for estimating discounts, a summed-discounts approach, combines data on direct and indirect remuneration from the Medicare Trustees Reports with data on manufacturer coverage gap discounts, which are available from CMS33 and the Medicare Payment Advisory Commission.34,35 Manufacturer coverage gap discount spending ranged from $5.1 billion in 2014 to $6.9 billion in 2018. By adding manufacturer coverage gap discount spending to direct and indirect remuneration (Table 1),16,23,30,32-36 we estimate overall discounts of 18.5% (2014), 22.5% (2015), 23.8% (2016), 25.6% (2017), and 29.1% (2018).

The summed-discounts approach overcomes several limitations of methods used in prior studies of Medicare Part D. However, neither this method nor any of the methods previously described account for the unequal distribution of discounts among brand-name vs generic drugs. Manufacturer coverage gap discounts are provided only for brand-name products, and manufacturer rebates, which represent the vast majority of direct and indirect remuneration, are provided almost exclusively for brand-name products. Yet, these methods estimate mean discounts across all drugs (including generics) and therefore underestimate discounts on brand-name drugs.

Brand-Name Summed Discounts

A fourth method, which we will refer to as the brand-name summed-discounts approach, corrects for this limitation by assuming that discounts apply exclusively to brand-name drugs. To estimate brand-name discounts, we must first determine how much Medicare Part D spends each year on brand-name vs generic drugs.37 The Medicare Trustees Reports provide this information for 2016 to 2018, with gross brand-name spending increasing from 76% to 78% of total gross spending (Table 1). A separate report from the Office of Inspector General provides this information for 2014 and 201538; gross brand-name spending was 73% of total gross spending in 2014 and 75% in 2015 (after minor adjustments for dispensing fees and sales tax) (eTable 3 in the Supplement). We confirmed the accuracy of these percentages during each year of the study period by manually adding the gross spending associated with each brand-name drug and dividing this sum by total gross spending.16

We can then insert the overall summed discounts described in the previous subsection into the following formula for an estimate of brand-name discounts: % of brand-name discounts = % of overall discounts/% of brand-name spending. This equation assumes that all discounts are provided for brand-name drugs, with none for generic drugs. Estimated discounts on brand-name drugs are 25.4% (2014), 30.0% (2015), 31.3% (2016), 33.7% (2017), and 37.3% (2018).

Table 1. Estimated Medicare Part D Discounts, 2014-2018

<table>
<thead>
<tr>
<th>Year</th>
<th>Total gross spending (A), $ in billionsa</th>
<th>DIR (B), $ in billionsb</th>
<th>Manufacturer CGD spending (C), $ in billionsc</th>
<th>Sum of discounts (B + C), $ in billionsd</th>
<th>Overall % discounts ((B + C)/A), % gross</th>
<th>Gross brand-name spending (D), $ in billionsd</th>
<th>Brand-name % discounts ((B + C)/D), % gross brande</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>121.4</td>
<td>17.4</td>
<td>5.1</td>
<td>22.5</td>
<td>18.5</td>
<td>88.6</td>
<td>25.4</td>
</tr>
<tr>
<td>2015</td>
<td>137.3</td>
<td>25.1</td>
<td>5.8</td>
<td>30.9</td>
<td>22.5</td>
<td>103.0</td>
<td>30.0</td>
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<tr>
<td>2016</td>
<td>146.1</td>
<td>29.1</td>
<td>5.7</td>
<td>34.8</td>
<td>23.8</td>
<td>111.0</td>
<td>31.3</td>
</tr>
<tr>
<td>2017</td>
<td>154.8</td>
<td>33.9</td>
<td>5.8</td>
<td>39.7</td>
<td>25.6</td>
<td>117.6</td>
<td>33.7</td>
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<tr>
<td>2018</td>
<td>168.1</td>
<td>42.0</td>
<td>6.9</td>
<td>48.9</td>
<td>29.1</td>
<td>131.1</td>
<td>37.3</td>
</tr>
</tbody>
</table>

Abbreviations: CGD, coverage gap discount; DIR, direct and indirect remuneration.

a Values for gross spending were obtained from the Medicare Provider Utilization and Payment Data.26

b All values for DIR were obtained from Table 4.B8 of the 2020 Medicare Trustees Report, which gives DIR as a percentage of gross spending: 14.3% (2014), 18.3% (2015), 19.9% (2016), 21.9% (2017), and 25.0% (2018).21 The total DIR received by Medicare Part D is equal to gross spending multiplied by the percent DIR reported in the Medicare Trustees Reports.

c Manufacturer spending on coverage gap discounts was reported by the Centers for Medicare & Medicaid Services for 2014 to 201633 and by the Medicare Payment Advisory Commission for 201734 and 2018.35

d The Medicare Trustees Reports provided gross brand-name spending as a percentage of total gross spending from 2016 to 2018: 76% (2016),30 76% (2017),36 and 78% (2018).38 Brand-name spending was determined separately for earlier years based on a report by the Office of Inspector General: 73% (2014) and 75% (2015) (eTable 3 in the Supplement). The total spent on brand-name drugs by Medicare Part D in this column is equal to gross spending multiplied by the percent of brand-name spending.

e This column assumes that only brand-name drugs receive discounts. The percent discount received by brand-name drugs equals the sum of DIR plus the CGD divided by brand-name spending.


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The validity of this approach is perhaps best appreciated by way of comparison with a recent Congressional Budget Office (CBO) report. The CBO was granted access to confidential CMS data on discounts and analyzed these discounts for 187 brand-name drugs with the highest 2017 Medicare Part D expenditures (accounting for 85% of all Part D brand-name spending). The CBO observed mean discounts of 35% in 2017, which were almost identical to the 34% discounts estimated by our proposed brand-name summed-discounts method. Application of net-to-gross methods to brand-name drugs tends to overestimate discounts, while application of the Medicare Trustees Reports method underestimates them (Figure 1B).

Our proposed method is not without limitations. It will slightly overestimate brand-name discounts by assuming that generic drugs receive no discounts. Although generics traditionally have not been subject to manufacturer rebates, this practice may be changing as more complex generics come to the market. In addition, generic drugs receive pharmacy-related price concessions, which remain a small portion of overall discounts but have increased substantially in recent years.

Comparing the Brand-Name Summed-Discounts Model With a Proprietary Algorithm

Rather than rely on publicly available data for estimating Medicare Part D discounts, investigators have increasingly relied on the SSR Health database. This database estimates net prices of drugs manufactured by publicly traded companies by dividing overall manufacturer revenues for a given drug (as reported to the US Securities and Exchange Commission and in other industry reports) by the total number of units dispensed (according to data from Symphony Health). Overall market discounts are equal to 1 minus the quotient of net prices divided by list prices. SSR Health then determines Medicaid discounts based on statutorily required rebates and known utilization rates and assigns the remainder of discounts to “non-Medicaid” payers (primarily commercial and Medicare Part D plans). A key advantage of this approach is that it provides product-specific estimates for both Medicaid and non-Medicaid payers. However, Figure 1B shows how SSR Health estimates of mean non-Medicaid discounts are somewhat higher than estimated discounts received by Medicare Part D according to the brand-name summed-discounts approach.

There are several potential reasons for this discrepancy. First, SSR Health estimates net prices from the perspective of manufacturers rather than of payers and therefore does not include costs along the supply chain that payers incur from wholesalers, PBMs, and pharmacies. For example, if a manufacturer sells 10 units of a drug with a list price of $100 per unit and reports revenues of $500, the SSR Health method correctly concludes that the manufacturer provided a 50% discount. However, if Medicare Part D plans pay an additional $10 in supply chain costs, then payment for the drug is $60 per unit, and the correct discount to apply when determining net spending is 40%. Second, SSR Health incorporates steep discounts that drug manufacturers are required to provide when selling products to entities included under section 340B of the Public Health Service Act (340B entities)—which include hospitals and clinics that serve statutorily defined vulnerable populations—but these discounts are often kept by 340B entities themselves, not passed on to payers. The prices charged to Medicare Part D plans by 340B entities tend to be similar to the prices charged by non-340B entities; thus, application of SSR Health estimates to gross Medicare Part D spending will tend to overestimate the discounts received by Medicare. Third, when calculating Medicaid rebates, SSR Health excludes one type of statutorily required discounts—namely, “best price” discounts—which ensure that Medicaid pays the lowest net price offered to commercial insurers. This underestimation of Medicaid rebates inflates non-Medicaid discounts because SSR Health infers non-Medicaid discounts by subtracting Medicaid rebates from total discounts. Fourth, non-Medicaid discounts in SSR Health include discounts received by the Veterans Affairs Health Administration and other government payers, which are known to exceed discounts received by Medicare Part D. Fifth, SSR Health includes manufacturer coupons that reduce patient out-of-pocket costs, but such coupons are legally prohibited in Medicare Part D.
mandates that plans cover 6 protected drug classes, which may limit their ability to negotiate discounts in these classes compared with commercial plans. 46

Although application of SSR Health data to Medicare Part D spending leads to an overestimation of discounts, the magnitude of overestimation in aggregate is modest. This is, in part, because of countervailing factors that may contribute to higher discounts in Medicare Part D than in commercial plans. Medicare Part D plans, for example, benefit from coverage gap discounts, which are not available to commercial plans. Medicare Part D plans can also negotiate net prices that are excluded from determinations of Medicaid best-price discounts, which may incentivize manufacturers to offer higher rebates than they offer to commercial plans. 28, 47

Discounts Across Drug Classes

The brand-name summed-discounts approach effectively captures the range of discounts received by Medicare Part D. This approach can also help us better understand class-specific discounts. The magnitude of discounts for any given drug is confidential, and prior to 2019, the federal government had released limited information about discounts for specific drug classes. In 2019, the GAO released a report on PBMs that included the most comprehensive official data available on class-specific Medicare Part D discounts. 12 The GAO had access to confidential CMS data and provided mean brand-name discounts in 12 therapeutic classes (Figure 2A). 12

Akin to the estimates for discounts in the Medicare Trustees Reports, the GAO estimates excluded manufacturer coverage gap discounts. Two methods are available to address this limitation and to link the GAO report with data on coverage gap discounts. First, we may add the mean coverage gap discount, which was 5.1% of gross brand-name spending in 2016, to each therapeutic class. Second, we can rely on class-specific data reported elsewhere by CMS. From 2011 to 2016, CMS reported coverage gap discounts for the top 10 therapeutic classes (eTable 4 in the Supplement). 33 Because CMS coverage gap data are not available for all drug classes in the GAO report, we applied the first method in Figure 2B.

These data reveal how discounts vary substantially by class. While Medicare Part D received discounts above 50% for gastrointestinal tract and ophthalmologic drugs in 2016, it received

Figure 2. Estimated Class-Specific Medicare Part D Discounts for Brand-Name Drugs, 2014-2018

A, Details of class-specific direct and indirect remuneration (DIR) for the year 2016, the only year for which class-specific data are available. These figures for class-specific DIR come directly from a 2019 Government Accountability Office report. 12 The authors of this report had access to confidential information on DIR but excluded manufacturer coverage gap discounts (CGD). B, Adjustment of these class-specific estimates by adding the mean manufacturer CGD in 2016 (5.1% of gross brand-name spending) to each class. In both panels, class-specific estimates for 2016 are plotted against brand-name estimates for 2014 to 2018 based on the Medicare Trustees Reports (DIR alone) and the brand-name summed-discounts method (DIR plus manufacturer CGD). CNS indicates central nervous system.
discounts below 10% for immunologic and antineoplastic drugs. Unfortunately, government organizations have not released data with class-specific discounts for subsequent years. However, our proposed framework provides researchers and policy makers with a benchmark for analyzing specific drug classes. When more class-specific information becomes available, this framework can be updated to include new data points.

**Estimated Net Medicare Part D Spending on Prescription Drugs**

Using the proposed framework for estimating discounts, we can better understand trends in net Medicare Part D spending on prescription drugs (in total by patients, plans, and third-party payers). While gross spending increased 38% from $121 billion in 2014 to $168 billion in 2018, net spending after discounts increased just 21% from $99 billion to $119 billion (compared with 6% inflation during the time period) (Table 2).\(^4\)\(^8\)\(^9\) This gap between gross and net spending was due to rising discounts, which increased 117% from $22.5 billion to $48.9 billion. During the same time period, Medicare Part D enrollment increased from 37.7 million beneficiaries to 44.2 million beneficiaries, and estimated annual net spending per beneficiary increased just 3% from $2622 to $2694, which was below the rate of inflation.

**Conclusions**

We have reviewed several methods for estimating rebates and other discounts in Medicare Part D. Although each method has flaws, the brand-name summed-discounts approach captures the spectrum of discounts received by Medicare Part D. Using this approach, we found that discounts steadily climbed from 25.4% of gross brand-name spending in 2014 to 37.3% in 2018. During this period, net spending increased more slowly than gross spending. With increasing Medicare Part D enrollment, estimated net spending per beneficiary remained largely unchanged.

The future of rebates and other discounts in Medicare is uncertain. The Trump administration’s final rule to eliminate Medicare Part D rebates faces major legal challenges.\(^1\)\(^8\) Regulation or legislation requiring CMS to publish more comprehensive data each year would enable researchers and policy makers to better study trends in Medicare spending. Although agencies such as the GAO and CBO provide valuable snapshots based on confidential CMS data, more regular and granular reports are needed. Sound and transparent estimates of discounts are critical if we are to develop new cost-containment strategies in Medicare Part D.

**Table 2. Estimated Net Medicare Part D Spending on Prescription Drugs, 2014-2018**

<table>
<thead>
<tr>
<th>Year</th>
<th>Gross spending (A), $ in billions</th>
<th>Discounts (B), $ in billions(^a)</th>
<th>Estimated net spending (A − B), $ in billions</th>
<th>Beneficiaries (C), No. in millions(^b)</th>
<th>Estimated net spending per beneficiary ((A − B)/C), $(^c)</th>
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</thead>
<tbody>
<tr>
<td>2014</td>
<td>121.4</td>
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<td>98.9</td>
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<td>2016</td>
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<td>2017</td>
<td>154.8</td>
<td>39.7</td>
<td>115.1</td>
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<td>2694</td>
</tr>
<tr>
<td>2018</td>
<td>168.1</td>
<td>48.9</td>
<td>119.2</td>
<td>44.2</td>
<td>2694</td>
</tr>
</tbody>
</table>

\(^a\) Discounts include direct and indirect remuneration and manufacturer coverage gap discounts.

\(^b\) The Centers for Medicare & Medicaid Services report the number of enrollees each year using a person-year method.\(^4\)\(^8\)\(^9\) This method accounts for the duration of a beneficiary’s enrollment during the calendar year.

\(^c\) While net spending increased by 20.5% (unadjusted for inflation) from 2014 to 2018, net spending per beneficiary increased by just 2.7%. The increase in net spending per beneficiary was slower than the rate of inflation during the study period, which was 5.8% (calculated based on the Consumer Price Index for all urban consumers in July of each year).\(^4\)\(^9\)


**SUPPLEMENT.**

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