



—Inflation Reduction Act Research Series—

Medicare Part D Enrollee Out-Of-Pocket Spending: Recent Trends and Projected Impacts of the Inflation Reduction Act

The Inflation Reduction Act’s redesign of Medicare Part D will reduce enrollee out-of-pocket spending by about \$7.4 billion annually among more than 18.7 million enrollees (36 percent of Part D enrollees) in 2025 – nearly \$400 per person among enrollees who have savings in out-of-pocket costs under the IRA.

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KEY POINTS

- The Inflation Reduction Act (IRA) will make key changes to improve drug affordability for seniors and people with disabilities who have Medicare.
- Prior to the IRA, enrollees who entered the Part D catastrophic coverage phase of the Part D benefit and did not receive the Low-Income Subsidy (LIS)* paid the most in out-of-pocket costs for their prescriptions. About four percent of non-LIS Part D enrollees, or 1.5 million enrollees, reached the catastrophic coverage phase, paying about \$3,093 on average in out-of-pocket costs for their Part D medications across all Part D payment phases.†
- Out-of-pocket spending for Part D drugs was highest for enrollees with certain health conditions and who take certain types of medications. For example, the average out-of-pocket drug spending was highest for non-LIS enrollees with cystic fibrosis (\$9,522 per enrollee).
- Starting in 2025, the IRA will add an out-of-pocket cap in Medicare Part D, \$2,000 in 2025 and indexed annually for inflation thereafter. The IRA also includes other provisions designed to decrease spending for Part D enrollees and taxpayers.

* * For eligible enrollees whose income and resources are limited, the Medicare Prescription Drug, Improvement and Modernization Act of 2003 established extra help (a subsidy) with for prescription drugs. Subsidies are paid by the Federal government to drug plans and provide assistance with premiums, deductibles, and co-payments. Under the IRA, beginning in 2024, the LIS program is expanded to individuals with limited financial resources and incomes up to 150 percent of the Federal Poverty Limit (FPL), which is about \$21,870 per individual in 2023. For more information, please see [here](#).

† Enrollee out-of-pocket costs are based on actual payments made by enrollees. This value excludes manufacturer gap discount payments that count towards the true out-of-pocket limit (TrOOP). TrOOP refers to incurred costs that count towards an enrollee’s Medicare Part D drug plan out-of-pocket threshold (\$7,400 for 2023). TrOOP determines entry into the catastrophic coverage phase of the Part D benefit and consists of both payments paid by the enrollee (e.g., annual deductible, out-of-pocket costs, and others) as well as other payments not paid by the enrollee (e.g., manufacturer gap discounts for brand drugs).

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- Our analysis estimates the combined effect of the IRA provisions modeled in this Report.^{**†} When these IRA provisions are all in effect in 2025, it will lead to about a \$7.4 billion reduction in annual out-of-pocket spending for 18.7 million enrollees (LIS and non-LIS) in 2025.
 - ASPE modeling projects that about 36 percent or 18.7 million of LIS and non-LIS Medicare Part D enrollees will have savings under the IRA provisions in 2025, with their out-of-pocket costs expected to be reduced by about \$400 per enrollee. Among this population, 8.4 million enrollees are non-LIS enrollees. They are expected to have an estimated \$759 average reduction in out-of-pocket spending in 2025.
 - Among the population of enrollees who are expected to save in out-of-pocket costs for Part D medications, there's a subset of enrollees who are projected to save at least \$1,000. Our modeling estimates that nearly 1.9 million enrollees, which consists mostly of non-LIS enrollees, will save at least \$1,000 under the IRA provisions; the average annual out-of-pocket savings for this population in 2025 is projected to be about \$2,500 per enrollee, a 66 percent decline relative to baseline.
 - Other features of the IRA not included in these estimates – including drug price negotiation and inflation rebates for drug price increases – are expected to produce additional savings for enrollees and taxpayers.
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BACKGROUND

High prescription drug costs are a challenge for many people enrolled in Medicare, with one report estimating that more than five million Medicare enrollees experience difficulties with drug affordability.¹ On August 16, 2022, President Biden signed the Inflation Reduction Act (IRA) into law. The IRA includes provisions that redesign the Medicare Part D prescription drug payment structure and benefits, with the goal of making prescription drugs more affordable and accessible for enrollees.² Prior to the IRA, there was no cap on out-of-pocket spending in Medicare Part D, a provision which goes into effect in 2025 when a \$2,000 cap will apply. For Medicare enrollees who require high-priced medications or those who need many different types of medications, the out-of-pocket costs can be substantial.

Since it was created in 2006, Medicare's Part D benefit has grown to provide prescription drug coverage for 51 million of the 65 million Medicare enrollees in 2022.^{3,4} Some Medicare enrollees have drug coverage from a former employer and do not elect to enroll in Part D, while about nine percent of enrollees have no drug coverage at all.⁵ Under Part D, Medicare subsidizes premium costs for all enrollees through direct subsidy payments made to Part D plans and provides additional premium and cost sharing subsidies for low-income enrollees. The benefit's original design – which included a coverage gap and some enrollee responsibility during a catastrophic phase – left some enrollees with exceedingly high out-of-pocket expenses. The Affordable Care Act (ACA) and the Bipartisan Budget Act of 2018 phased out the coverage gap,[‡] and the coverage gap phase of the Medicare Part D benefit will be eliminated under the IRA. Nonetheless, factors such

* IRA provisions modeled in this Report include provisions that institute a \$35 out-of-pocket cost sharing cap on a month's supply of each covered insulin and eliminate deductibles for covered insulin in Part D, eliminate out-of-pocket costs for Advisory Committee on Immunization Practices (ACIP)-recommended adult vaccines under Part D, impose a maximum out-of-pocket cap of \$2,000 starting in 2025 and indexed to inflation annually thereafter, and eliminate the coverage gap phase and replace the coverage gap discount program with the manufacturer discount program. A complete list of provisions modeled are presented in Table 1.

† Out-of-pocket spending includes only the amount paid by the enrollee as cost sharing for their prescription drugs covered under Medicare Part D. It does not include premium payments for health insurance.

‡ The coverage gap was phased out through the Coverage Gap Discount Program. This program will be replaced by the Manufacturer Discount Program, starting in 2025, as part of the IRA. Note that the coverage gap phase still exists and will be eliminated in 2024 under the IRA.

as rising prices for drugs and the increasing availability of high-cost specialty drugs have resulted in many enrollees being exposed to high out-of-pocket costs.⁶

Enrollees with chronic health conditions may be especially at risk for high drug costs in Part D. Among Medicare enrollees over the age of 65, existing research finds that about 11 percent with asthma or chronic obstructive pulmonary disease (COPD) report having affordability challenges, 10 percent with diabetes report affordability challenges, and 7 percent with hypertension report affordability challenges.⁷ Affordability challenges are higher for Black and Latino enrollees (about 10 percent each) relative to White enrollees (about 6 percent).⁸ Among Medicare enrollees who are under the age of 65, nearly a quarter report drug affordability problems.⁹

Additionally, some health conditions are particularly expensive to treat, and prescription drugs are an added cost for enrollees beyond other health care costs. The cost of long-term medications for conditions such as diabetes and heart disease, for example, can be expensive as therapies are long-term.^{10,11} Moreover, conditions that require treatment with biologic immunosuppressant therapies, such as medications for rheumatoid arthritis and other inflammatory conditions, can be particularly expensive, with some studies finding that drug costs alone can average over \$10,000 per year.¹² For Medicare enrollees on fixed incomes, treating such conditions with prescription drugs can represent a substantial expense.

When people cannot afford medications, they may not take their medication as directed, skip doses, or ration in other ways, all of which can have serious health and cost-related consequences. Research shows that nearly 30 percent of adults report not taking their prescription drugs as prescribed for cost-related reasons.¹³

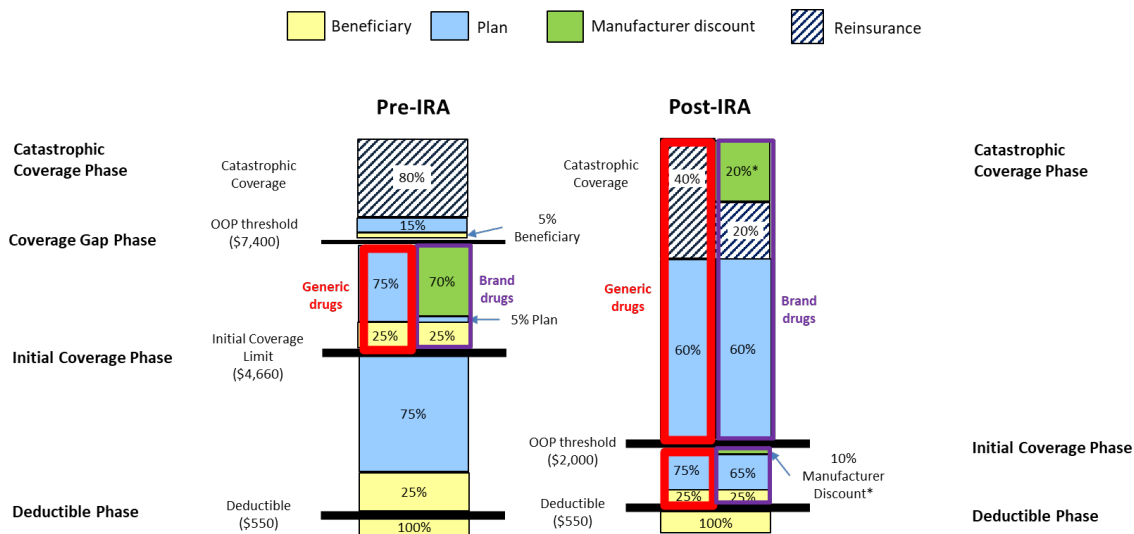
The IRA includes several provisions designed to improve affordability of the Part D benefit design. In this Research Report, we analyze utilization and out-of-pocket spending of prescription drugs that are covered under Part D and project impacts of the IRA's drug-related provisions on Part D out-of-pocket spending. First, we examine Part D enrollment and spending from 2007 to 2022 to understand how much enrollees have been paying out-of-pocket for prescription drugs over time. Then, we estimate the impact of IRA Part D drug-related provisions that we expect to have the most direct impact on out-of-pocket spending for prescription drugs. The provisions analyzed here include the following:

- \$35 out-of-pocket cap on each month's supply of covered insulin and elimination of deductibles for covered insulin, effective January 2023;
- elimination of out-of-pocket costs for Advisory Committee on Immunization Practices (ACIP)-recommended adult vaccines covered under Part D, effective January 2023;
- elimination of five percent coinsurance in the catastrophic coverage phase, effective January 2024;
- elimination of the coverage gap phase and replacement of the Coverage Gap Discount Program with the new Manufacturer Discount Program, effective in 2025;
- and a maximum out-of-pocket cap of \$2,000, effective 2025, and indexed annually to inflation thereafter.

Medicare Part D Benefit Structure under the IRA

The IRA's drug related provisions change the Medicare Part D standard benefit structure, which originally consisted of four phases of prescription drug coverage. Enrollees move through the phases depending on their drug spending and plan policies. Figure 1 shows the coverage phases pre-IRA and under the IRA, beginning with the deductible phase, for Part D enrollees who do not receive the Low-Income Subsidy (LIS), which is financial assistance offered to enrollees who meet certain income and asset requirements. Non-LIS enrollees represent about 72 percent of the program's enrollment and have higher out-of-pocket spending for Part D drugs than their counterparts who receive LIS.¹⁴ Figure 1 also shows how, in general, the Medicare Part D standard structure changes with the IRA redesign in 2025.

Figure 1. IRA Changes to the Part D Benefit for Non-LIS Enrollees in 2025



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Notes: Figure 1 represents Part D payment benefit structure before and after the IRA redesign in 2025 for non-LIS enrollees. Pre-IRA and Post-IRA benefit are scaled to \$10,000 of total liability in 2023.

*IRA Manufacturer Discount phased in during the initial coverage phase from 2025 through 2029 and in the catastrophic phase from 2025 through 2031. Full details of the IRA changes are available at: [Inflation Reduction Act and Medicare | CMS](#)

Source: Centers for Medicare and Medicaid Services

IRA = Inflation Reduction Act

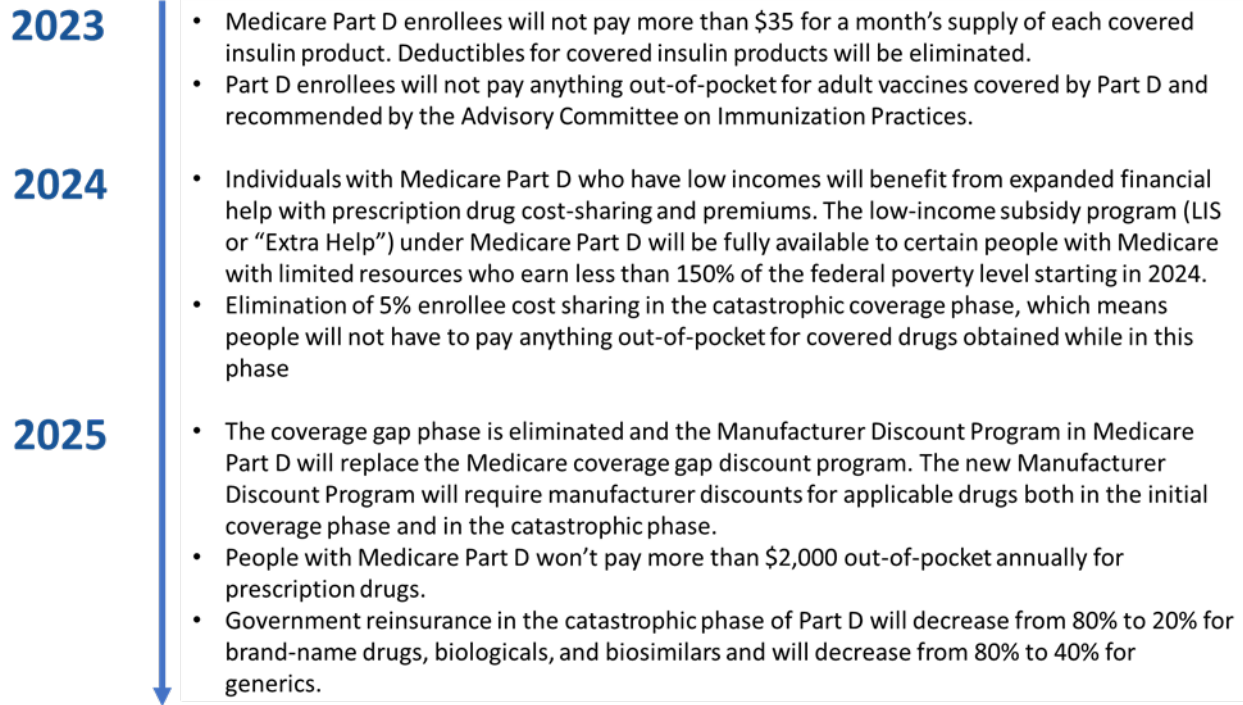
Under the IRA, in 2024, enrollees will no longer pay five percent coinsurance in the catastrophic coverage phase. In 2025, the coverage gap phase will be eliminated and the Coverage Gap Discount Program will be replaced with the new Manufacturer Discount Program. Enrollees will transition from the initial coverage phase to the catastrophic coverage phase when they have incurred \$2,000 in out-of-pocket costs in 2025 and indexed annually for inflation thereafter. When this provision goes into effect in 2025, Part D enrollees will no longer be responsible for out-of-pocket spending above the annual threshold. This is expected to have a considerable impact on out-of-pocket spending. Existing research shows that in 2019, out-of-pocket drug spending for about 1.5 million Part D enrollees exceeded the 2019 annual catastrophic coverage threshold (\$5,100) for total out-of-pocket drug spending.¹⁵ Non-LIS enrollees who reach the catastrophic coverage phase have more chronic conditions and use more specialty care drugs relative to enrollees who do not enter the catastrophic coverage phase.¹⁶

These Part D benefit structure changes are phased in over time, alongside other key provisions.* Figure 2 presents the implementation timeline of IRA Part D provisions from 2023 to 2025 that are modeled in this Report to understand their impacts on out-of-pocket spending. These program changes, along with other IRA

* This report does not include IRA provisions related to Medicare Part B. For a complete list of changes related to the IRA for both Parts B and D, please see here: [Inflation Reduction Act Timeline \(cms.gov\)](#).

Part D changes, aim to decrease prescription drug costs for Medicare enrollees and taxpayers while improving enrollee access to prescription drugs.

Figure 2. Implementation Timeline of IRA Part D Provisions Modeled in This Report, 2023 – 2025



Notes: This figure presents Inflation Reduction Act (IRA) provisions that impact prescription drugs covered under Medicare Part D that are modeled in this Report. Provisions go into effect at different points in the year. This figure does not present a complete list of all IRA drug-related provisions. Complete details of all drug-related provisions of the IRA are available here: [Inflation Reduction Act Timeline \(cms.gov\)](https://www.cms.gov/medicare/iraprovisions).¹⁷

METHODS

This Report consists of a two-part study: 1) examination of Part D enrollment and spending over time and 2) identification of impacts of select IRA drug-related provisions on Part D out-of-pocket spending.

Methods to Identify Trends in Enrollment and Spending Over Time

We used the Prescription Drug Event (PDE) data and Part D enrollment data, from 2007 through 2022, to examine trends in Medicare Part D enrollment overall and by LIS status. We also examined trends in average out-of-pocket spending for non-LIS enrollees by payment coverage phase for the same time period. We defined out-of-pocket spending as the amount paid by enrollees and reported in the Medicare PDE data. * We also examined trends in total Part D costs to understand how the share of drug spending that is paid out-of-

* We considered using the CMS’s True out-of-pocket (TrOOP) cost, less gap discount, to define out-of-pocket spending. However, we only present findings from payment paid by enrollees as it represents the actual copayment paid by enrollees and may play an important role in drug affordability and an enrollee’s decision to purchase the medication or forgo it. Spending trends were similar when we used enrollee payments and the TrOOP less gap discount definition.

pocket has changed over time. Our estimates include all Part D enrollees, including those in fee-for-service Medicare and Medicare Advantage, as well as enrollees in Employer Group Waiver Plans (EGWPs).*

Although we present estimates for all enrollees, we focused specifically on non-LIS enrollees because these enrollees have higher out-of-pocket costs than LIS enrollees who receive financial assistance to help pay for prescription drug costs and premiums in Part D. Additionally, we highlight findings for non-LIS enrollees who reach the catastrophic coverage phase because these enrollees have the highest out-of-pocket spending, and the IRA Part D benefit redesign aims to reduce financial burden for enrollees who reach this phase.

We also examined demographic characteristics of enrollees to identify any group differences and identified medical conditions with the highest average out-of-pocket Part D drug spending among enrollees in the catastrophic coverage phase using PDE data in 2021 or 2022, depending on the latest year for which data on enrollees’ medical conditions was available. In addition, we examined Part D out-of-pocket drug spending by state of residence in 2022.

Methods to Estimate the Impacts of the IRA’s Drug-related Provisions

We used Medicare PDE data for Part D enrollees in 2021 to develop a simulation model to understand the overall and state-specific impacts on Part D out-of-pocket spending for IRA drug-related provisions that we expect to have direct impacts on out-of-pocket drug spending. PDE data from 2021 was used because at the time the simulation model was being developed, this was the latest year of complete Part D data that was available.

We developed two specifications of our simulation model, which allowed us to identify impacts of IRA-drug related provisions depending on whether the provisions are in effect in 2024 or 2025 (Table 1). Note that some provisions go into effect earlier than 2024 or 2025, but we only model the combined effect of provisions in effect in 2024 and 2025. Although we report results from both specifications, we focus primarily on specification B representing the more comprehensive set of IRA policies in effect in 2025 and beyond.

Table 1. IRA Part D Drug Related Provisions Included in the Simulation Model

Specification A: Provisions that are Modeled in combination and in effect in Calendar Year 2024	Specification B: Full set of Provisions Modeled that are in effect in Calendar Year 2025
<ul style="list-style-type: none"> Enrollee cost sharing (i.e., out-of-pocket spending) is limited to \$35 for a month’s supply of each covered insulin product and deductibles for covered insulin products are eliminated Enrollee cost sharing for ACIP-recommended adult vaccines is eliminated Full LIS assistance is expanded to people with limited resources who earn less than 150 percent of the federal poverty level Reduction of enrollee coinsurance in the catastrophic coverage phase from five to zero percent 	<ul style="list-style-type: none"> Enrollee cost sharing is limited to \$35 for a month’s supply of each covered insulin product and deductibles for covered insulin products are eliminated Enrollee cost sharing for ACIP-recommended adult vaccines is eliminated Full LIS assistance is expanded to people with limited resources who earn less than 150 percent of the federal poverty level Reduction of enrollee coinsurance in the catastrophic coverage phase from five to zero percent

* EGWPs are a type of health plan that employers can choose to offer their employees that include prescription drug coverage. EGWPs are required to meet CMS Part D plan standards but their plans can be more generous than the standard benefit. For more information on EGWPs, please see here: [Employer Group Waiver Plans \(EGWPs\) | CMS](#).

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- \$2,000 maximum annual out-of-pocket cap for enrollees, beginning in 2025, and indexed to inflation thereafter
 - Elimination of the coverage gap phase and replacement of the coverage gap discount program with the Manufacturer Discount Program; the new Manufacturer Discount Program requires a 10 percent manufacturer discount on brand drugs in the initial coverage phase and 20 percent in the catastrophic coverage phase
 - Government reinsurance decreases in the catastrophic coverage phase – from 80 percent to 20 percent for brand-name drugs, biologicals, and biosimilars, and from 80 percent to 40 percent for generics

Notes: Estimates do not include non-IRA regulations that may impact drug spending (e.g., Part D regulations requiring that pharmacy price concessions be reflected at the point of sale beginning in January 2024). There will be changes to the Part D benefit between calendar years 2024 and 2025. For example, the accumulation of costs for TrOOP is different pre-IRA and in 2025, which is taken into account in our modeling.

ACIP = Advisory Committee on Immunization Practices

We focused on these provisions because they are expected to have a direct impact on out-of-pocket drug spending and there is sufficient information available on how these provisions will be implemented to allow for the development of a simulation model to identify impacts.

Our simulation model estimated what will happen to Medicare enrollees' Part D out-of-pocket drug spending in 2024 and 2025, when all of the IRA provisions in Table 1 for each calendar year are in effect, while holding enrollment to 2021 levels. We began with actual drug costs from the PDE data, matched with Part D enrollment data, inflated to projected 2024 or 2025 values, depending on the model specification and appropriate statutory formulas, and calculated cost sharing (i.e., out-of-pocket spending) based on the pre-IRA benefit.* We then calculated cost sharing on the same inflated 2021 claims, assuming no change in enrollment or the mix of drugs that are used, but with out-of-pocket costs based on the IRA provisions that go into effect by 2024 for Specification A (in 2024 dollars) and by 2025 for Specification B (in 2025 dollars).

Our modeling also takes into account changes in true out-of-pocket (TrOOP) accumulation, beginning in 2025 under the IRA. TrOOP refers to incurred costs that count towards an enrollee's Medicare Part D drug plan out-of-pocket threshold. TrOOP consists of both payments paid by the enrollee (e.g., annual deductible, out-of-pocket costs, and others) as well as other payments not paid by the enrollee (e.g., manufacturer gap discounts for brand drugs). In 2025, payments that count towards TrOOP change and our modeling takes these changes into account.†

There are a number of assumptions in our model. We did not adjust 2021 enrollment to projected 2024 and 2025 levels and instead assumed enrollment remains at 2021 levels. Although our simulation model adjusts for utilization changes, it does not adjust for how the mix of prescription drug use may change over time,

* This information was obtained from the Medicare Trustee's Report. Please see here for more details: [2022 Medicare Trustees Report \(cms.gov\)](https://www.cms.gov/medicare/medicare-trustee-report).

† For example, under the IRA, the manufacturer payments under the discount program will not count towards TrOOP beginning in 2025 and plan supplemental benefits (including EGWP benefits) will count towards TrOOP. Our modeling takes these into account to the extent feasible at the time the analysis was conducted.

changes in utilization that may occur due to the IRA’s out-of-pocket cap on spending, or changes in drug formulary preferences. We projected copay adjustments from the enhanced plans based on existing information on how enhanced plans have deviated from the standard benefit in 2021.

Additionally, our model does not account for all Part D drug-related provisions in the IRA. For example, the simulation model does not account for the IRA’s requirement for Part D sponsors, starting January 1, 2025, to provide their plan enrollees with the option to pay out-of-pocket costs under the plan in monthly amounts that are spread throughout the year. The simulation model also does not include any potential impacts associated with negotiation of Part D drugs, which may impact out-of-pocket spending once implemented. Nor does it account for the increase in access to drugs and new drugs that will come out in future years. It also does not account for the Part D inflation rebates nor for spillover effects that may occur if, for example, the inflation rebate provisions in the IRA lead to changes in the prices of drugs covered by private insurance. Our model also does not include changes in plan behavior resulting from the redesign of the Part D benefit. Finally, our model does not take into account other federal or state programs that may reduce spending on Part D drugs.* Additional details about the model are presented in the Appendix.

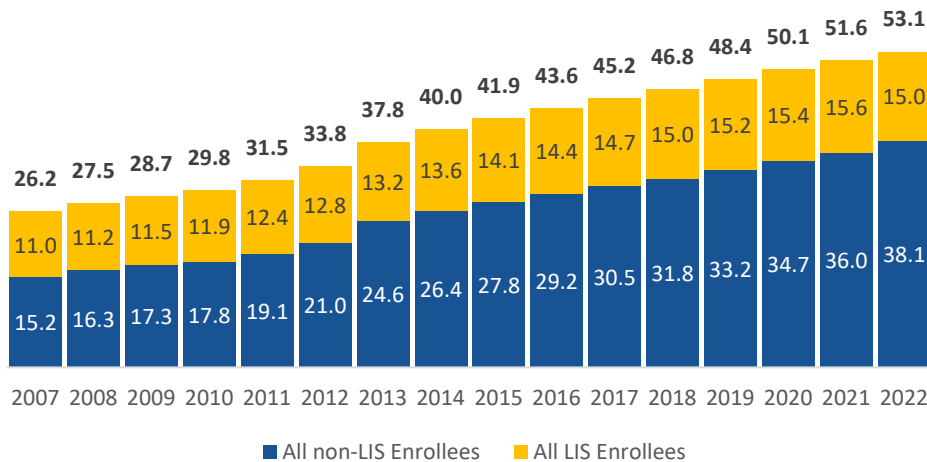
Our savings estimates are conservative because they do not fully capture policy changes that are designed to reduce the cost of prescription drugs to the Medicare program and taxpayers.

FINDINGS

Trends in Medicare Part D Enrollment, Total Spending, and Out-Of-Pocket Spending

Medicare Part D enrollment more than doubled from 26 million in 2007 to 53 million in 2022 (Figure 3). The majority of enrollment growth was driven by increases in enrollment among non-LIS enrollees, which grew from about 15 million in 2007 to 38 million in 2022.

Figure 3. Medicare Part D Enrollment (Millions of Enrollees), 2007 – 2022



Source: Enrollment calculated using the 2007-2022 Medicare Part D Prescription Drug Event data and Part D enrollment data.

* For example, the impacts of the Part D Senior Savings Model (PDSS), which is a voluntary model that tested alternative Part D plan options that offer lower out-of-pocket costs for insulin as supplemental benefits, are not separately accounted in the modeling. Reductions in out-of-pocket spending are included only in so far as the information is present in the 2021 PDE data. PDSS began January 1, 2021 and will end in December 31, 2023. Please see here: [Part D Senior Savings Model | CMS Innovation Center](#).

Table 2 presents Part D annual total spending per enrollee, out-of-pocket spending per enrollee, and out-of-pocket spending as a share of total spending over time for both non-LIS and LIS enrollees. Total spending is based on gross drug costs, which represent total spending for the prescription claim, including Medicare, plan, and beneficiary payments.*

For non-LIS enrollees, total spending per enrollee grew from about \$1,748 per enrollee in 2007 to \$3,293 per enrollee in 2022, an increase of about 88 percent.[†] For LIS enrollees, total spending per enrollee grew from about \$3,214 in 2007 to \$7,658 in 2022, an increase of 138 percent. This is consistent with research that shows Medicare Part D costs have increased over time.¹⁸ Existing research finds these increases have been driven partly by shifts towards use of newer high-priced brand-name drugs relative to drugs that have been on the market.¹⁹

Part D out-of-pocket spending declined about 27 percent for non-LIS enrollees between 2007 – 2022, going from about \$639 per enrollee in 2007 to \$464 per enrollee in 2022. Out-of-pocket spending represented a considerable portion of total spending, ranging from a high of nearly 36.5 percent of total spending in 2007 and then declining over time to a low of about 14 percent of total spending in 2022. The decline in out-of-pocket spending over this period may have been driven by multiple factors, including closing of the Part D coverage gap, which began under the ACA in 2010, and the Bipartisan Budget Act of 2018.²⁰

For LIS enrollees, as expected, out-of-pocket spending made up a smaller portion of total spending compared to non-LIS enrollees across all years. Out-of-pocket spending represented less than one percent of total Part D spending for LIS enrollees in 2022.

Table 2. Part D Annual Total Drug Spending and Out-Of-Pocket Spending, By LIS Status and Year

Year	Non-LIS Enrollees			LIS Enrollees		
	Average Total Drug Spending Per Enrollee ^a (\$)	Average Out-Of-Pocket Spending Per Enrollee (\$)	Out-Of-Pocket Spending as a Share of Total Spending	Average Total Drug Spending Per Enrollee ^a (\$)	Average Out-Of-Pocket Spending Per Enrollee (\$)	Out-Of-Pocket Spending as a Share of Total Spending
2007	\$1,748	\$639	36.5%	\$3,214	\$109	3.4%
2008	\$1,796	\$619	34.5%	\$3,463	\$109	3.1%
2009	\$1,843	\$627	34.0%	\$3,634	\$114	3.1%
2010	\$1,847	\$626	33.9%	\$3,726	\$117	3.1%
2011	\$1,901	\$538	28.3%	\$3,897	\$109	2.8%
2012	\$1,894	\$507	26.8%	\$3,889	\$97	2.5%
2013	\$2,034	\$484	23.8%	\$4,030	\$99	2.5%
2014	\$2,230	\$492	22.1%	\$4,561	\$94	2.1%
2015	\$2,401	\$493	20.6%	\$4,983	\$93	1.9%
2016	\$2,448	\$492	20.1%	\$5,141	\$95	1.8%
2017	\$2,482	\$481	19.4%	\$5,337	\$94	1.8%
2018	\$2,617	\$482	18.4%	\$5,642	\$93	1.7%

* The Part D spending measures do not reflect any manufacturers’ rebates or other price concessions. Please see here for more detail: [Medicare Part D Spending by Drug - Centers for Medicare & Medicaid Services Data \(cms.gov\)](https://www.cms.gov/medicare/medicare-eligibility/medicare-part-d-drug-coverage/medicare-part-d-spending-by-drug).

[†] Spending estimates are not adjusted for inflation over time

Year	Non-LIS Enrollees			LIS Enrollees		
	Average Total Drug Spending Per Enrollee ^a (\$)	Average Out-Of-Pocket Spending Per Enrollee (\$)	Out-Of-Pocket Spending as a Share of Total Spending	Average Total Drug Spending Per Enrollee ^a (\$)	Average Out-Of-Pocket Spending Per Enrollee (\$)	Out-Of-Pocket Spending as a Share of Total Spending
2019	\$2,778	\$462	16.6%	\$5,968	\$89	1.5%
2020	\$2,937	\$461	15.7%	\$6,258	\$93	1.5%
2021	\$3,087	\$457	14.8%	\$6,680	\$89	1.3%
2022	\$3,293	\$464	14.1%	\$7,659	\$52	0.7%

Source: 2007 – 2022 Medicare Prescription Drug Event data and Part D Enrollment data

Notes: Out-Of-Pocket spending is based on the actual enrollee payment as it represents the amount paid by enrollees and may play an important role in drug affordability and an enrollee’s decision to purchase the medication or forgo it. Costs paid on behalf of an enrollee by a plan through enhanced coverage or certain other entities (e.g., the Indian Health Service) count toward the out-of-pocket cost limit but are not reflected in the enrollee payment. Spending estimates are not adjusted for inflation.

^a Total spending is based on gross drug costs, which represent total spending for the prescription claim, including Medicare, plan, and beneficiary payments.

Trends in Out-Of-Pocket Spending for Enrollees Reaching the Catastrophic Coverage Phase

The share of enrollees reaching the catastrophic coverage phase increased over time. In 2022, about 8.1 percent of all Part D enrollees, or almost 4.3 million people, reached the catastrophic coverage phase. Among non-LIS enrollees, about 4 percent of enrollees, or about 1.5 million people, reached the catastrophic coverage phase.

About 8 percent of all Part D enrollees, or almost 4.3 million people, reached the catastrophic coverage phase in 2022.

Figure 4 shows the share of non-LIS enrollees who reached the catastrophic coverage phase and the average out-of-pocket drug spending per such enrollee from 2007 – 2022. Out-of-pocket spending includes spending in all coverage phases. These enrollees paid substantially more out-of-pocket for Part D covered drugs than their counterparts who did not reach the catastrophic coverage phase. Average out-of-pocket Part D drug spending in the catastrophic phase declined in years immediately following enactment of the ACA, likely because the ACA began to close the coverage gap after enactment.*

In 2022, average annual out-of-pocket spending was \$3,093 for non-LIS enrollees who ended the year in the catastrophic coverage phase. Existing research shows that the median income of Medicare enrollees is

In 2022, average annual out-of-pocket spending was \$3,093 for non-LIS enrollees who ended the year in the catastrophic coverage phase, which represents more than 10 percent of income for a typical Medicare Part D enrollee.

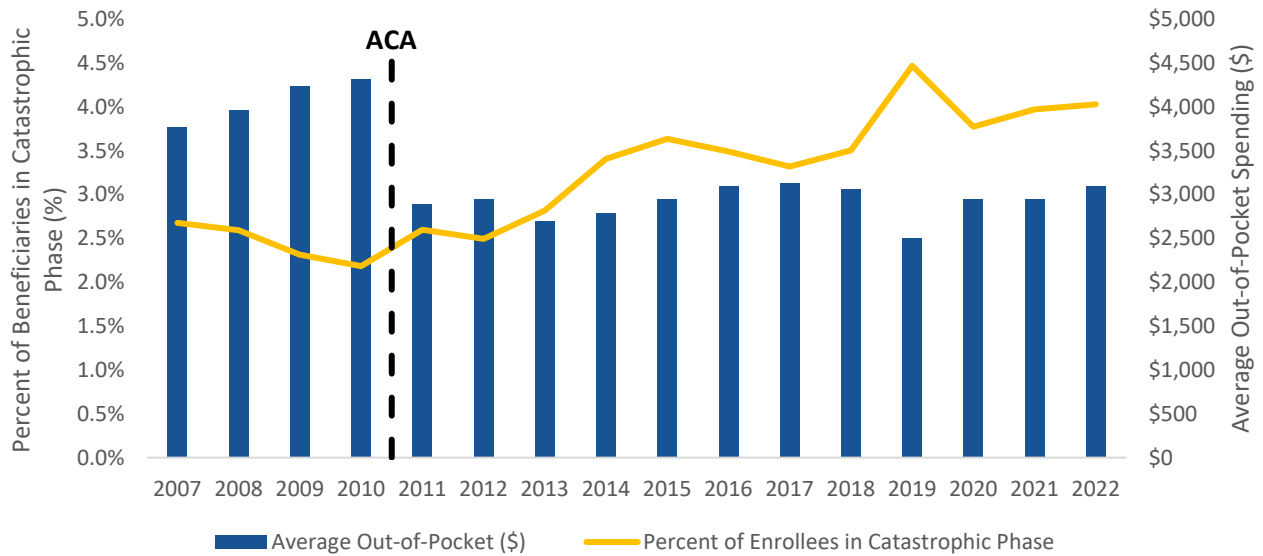
about \$29,650 per person, which means that spending about \$3,100 annually in out-of-pocket costs for prescription drugs represents more than 10 percent of income for a typical Medicare Part D enrollee.²¹

Among LIS enrollees, 18 percent of enrollees, or 2.7 million people, reached the catastrophic coverage phase in 2022. A larger proportion of LIS enrollees reach the catastrophic coverage phase compared to non-LIS enrollees because this population tends to be sicker and requires greater use of

* The Bipartisan Budget Act of 2018 closed the Part D coverage gap in 2019.

prescription drugs than non-LIS enrollees.²² However, because LIS enrollees receive assistance with out-of-pocket costs, their copays are limited and the out-of-pocket costs for LIS enrollees who reached the catastrophic coverage phase averaged \$87 in 2022.*

Figure 4. Share of Non-LIS Medicare Part D Enrollees Reaching Catastrophic Coverage Phase and Average Annual Out-Of-Pocket Drug Spending for Such Enrollees, 2007 – 2022



Source: Out-of-pocket spending calculated using the 2007 – 2022 Medicare Prescription Drug Event data and Part D Enrollment data.

Notes: ACA = “Affordable Care Act”, which began to close the Part D coverage gap when it was enacted, starting in 2010. The gap closed in 2019, a year earlier than ACA legislated, as a result of the Bipartisan Budget Act of 2018. The average out-of-pocket spending includes spending for all Part D benefit phases for enrollees who reach the catastrophic coverage phase. Spending estimates are not adjusted for inflation.

Medicare Part D Out-Of-Pocket Drug Spending by Demographic Characteristics

Table 3 shows the number of non-LIS enrollees by demographic characteristics that reached each coverage phase in 2022 and Table 4 shows average out-of-pocket costs for non-LIS enrollees by their end of year coverage phase. For example, of all women that were non-LIS enrollees, 3.4 percent (or 714,000 out of 21.2 million women), reached the catastrophic coverage phase (Table 3). These women paid an average of \$3,048 out-of-pocket in 2022 for Part D prescription drugs (Table 4) across all coverage phases.

Generally similar proportions of enrollees across demographic groups reached the catastrophic coverage phase, though there were some exceptions. A greater share of men (5 percent) than women (3 percent) reached the catastrophic coverage phase. Additionally, a greater share of Medicare enrollees between the ages of 65 – 84 reached the catastrophic coverage phase relative to those under the age of 65 and those ages 85 and over. There are also higher proportions of American Indian/Alaskan Native (AI/AN) enrollees who reached the catastrophic coverage phase (9 percent). Asian Americans had the lowest share of enrollees

* The LIS subsidy prior to 2024 can be a full or partial subsidy. For more details, please see: [Limited Income and Resources | CMS](#) and <https://secure.ssa.gov/poms.nsf/lnx/0603001005>.

reaching the catastrophic coverage phase (3 percent) relative to other racial and ethnic groups. The absolute number of Part D enrollees in these groups are low relative to White non-Latinos compared to the general population. A similar share of enrollees from urban or rural areas reached the catastrophic coverage phase.

Table 3. Demographic Characteristics of Medicare Part D Non-LIS Enrollees by Coverage Phase in 2022

Enrollee Characteristics	All (millions)	Deductible Phase	Initial Coverage Phase	Coverage Gap Phase	Catastrophic Coverage Phase
Total (N in Millions)	38.1	6.2	25.2	5.2	1.5
Gender					
Women	21.2	15.9%	67.8%	12.9%	3.4%
Men	16.9	16.7%	63.8%	14.6%	4.9%
Age					
<65	4.0	63.8%	27.9%	5.7%	2.6%
65-69	8.9	11.2%	74.2%	10.8%	3.9%
70-74	9.4	11.1%	71.1%	13.3%	4.5%
75-79	7.2	10.7%	68.6%	16.1%	4.7%
80-84	4.6	9.5%	67.8%	18.4%	4.4%
85+	4.1	10.3%	67.3%	19.1%	3.3%
Race & Ethnicity ^a					
White non-Latino	30.7	15.8%	65.9%	14.1%	4.1%
Black non-Latino	2.7	18.8%	65.0%	12.6%	3.6%
Latino	2.4	16.6%	68.5%	11.5%	3.3%
Asian American	1.1	19.5%	68.3%	9.4%	2.9%
American Indian / Alaska Native	0.07	15.4%	58.3%	17.2%	9.1%
Other or Unknown	1.2	19.1%	64.6%	11.9%	4.4%
Geographic Characteristics ^b					
Urban - Metropolitan	31.0	16.3%	65.9%	13.7%	4.1%
Rural - Micropolitan	3.4	10.3%	71.1%	14.5%	4.1%
Rural - All Other	2.3	9.9%	71.8%	14.2%	4.1%

Source: Demographic descriptive statistics calculated using the 2022 Medicare Part D Prescription Drug Event data and Part D Enrollment data.

Notes: Percentages are calculated for each demographic group by row using the total enrollees in each group as the denominator.

^aEstimates for race and ethnicity were updated from the version of this Report published in July 2023 to correct undercounting of some racial and ethnic groups.

^bEstimates for geographic characteristics were updated from the version of this Report published in July 2023 to classify micropolitan areas as rural areas. Geographic area estimates are based on mapping of beneficiary county and zip code information in the Medicare Enrollment Database to Census Core-Based Statistical Areas (CBSAs). Enrollees residing within a CBSA that is metropolitan are classified as urban. Enrollees are classified as rural if they reside in areas that can be mapped to a county and a zip code that is either a micropolitan area (rural – micropolitan) or an area that is not a metropolitan or a micropolitan area (rural – all other). The number of enrollees across all geographic areas may not sum to the total number of non-LIS enrollees due to missing or incomplete geographic information for some enrollees.

Table 4 presents average out-of-pocket drug spending in 2022 for non-LIS enrollees by demographic characteristics. Among enrollees who reached the catastrophic coverage phase, Part D out-of-pocket drug spending was highest for those younger than age 65 (\$3,318) relative to other age groups, which ranged from

\$3,046 for ages 65 – 69 to \$3,107 for those ages 85 and older. This is expected because these enrollees qualify for Medicare based on certain illnesses or disability.*

Among those who reached the catastrophic coverage phase, Other or Unknown race (\$3,223) and White non-Latino (\$3,149) enrollees had the highest out-of-pocket spending in 2022, followed by Black non-Latino enrollees (\$3,042), though differences were fairly modest. Out-of-pocket spending was slightly higher for enrollees in rural enrollees than enrollees residing in urban areas.

Table 4. Average Annual Out-Of-Pocket Part D Drug Spending Among Non-LIS Medicare Enrollees by Demographic Characteristics and Coverage Phase by End of Year (2022)

Demographic Characteristics	All	Deductible Phase	Initial Coverage Phase	Coverage Gap Phase	Catastrophic Coverage Phase
Total	\$464	\$70	\$259	\$1,147	\$3,093
Gender					
Women	\$449	\$75	\$272	\$1,155	\$3,048
Men	\$483	\$65	\$241	\$1,138	\$3,131
Age					
<65	\$239	\$3	\$309	\$1,107	\$3,318
65-69	\$407	\$96	\$214	\$1,114	\$3,046
70-74	\$478	\$118	\$247	\$1,149	\$3,059
75-79	\$527	\$126	\$272	\$1,146	\$3,073
80-84	\$560	\$131	\$291	\$1,157	\$3,150
85+	\$553	\$129	\$316	\$1,184	\$3,107
Race & Ethnicity ^a					
White non-Latino	\$492	\$74	\$275	\$1,192	\$3,149
Black non-Latino	\$378	\$61	\$216	\$920	\$3,042
Latino	\$273	\$44	\$155	\$740	\$2,215
Asian	\$311	\$54	\$175	\$1,004	\$3,009
American Indian/Alaska Native	\$706	\$57	\$339	\$1,329	\$2,984
Other or Unknown	\$444	\$65	\$235	\$1,171	\$3,223
Geographic Characteristics ^b					
Urban – Metropolitan	\$458	\$70	\$252	\$1,129	\$3,086
Rural – Micropolitan	\$519	\$125	\$284	\$1,216	\$3,105
Rural – All Other	\$542	\$129	\$302	\$1,267	\$3,180

Source: Out-of-pocket spending calculated using the 2022 Medicare Part D Prescription Drug Event data and Part D Enrollment data. Estimates are based on the last coverage phase reached by enrollees by the end of 2022 and their total out-of-pocket spending across all Part D benefit phases in 2022.

^aEstimates for race and ethnicity were updated from the version of this Report published in July 2023 to correct undercounting of some racial and ethnic groups.

^bEstimates for geographic characteristics were updated from the version of this Report published in July 2023 to classify micropolitan areas as rural areas. Geographic area estimates are based on mapping of beneficiary county and zip code information in the Medicare Enrollment Database to Census Core-Based Statistical Areas (CBSAs). Enrollees residing

* Individuals can qualify for Medicare at any age based on receipt of Social Security Disability benefits for 24 months or certain health condition, including end-stage renal disease (ESRD) and Amyotrophic Lateral Sclerosis (ALS). For more information, please see: [Medicare \(ssa.gov\)](https://www.ssa.gov).

within a CBSA that is metropolitan are classified as urban. Enrollees are classified as rural if they reside in areas that can be mapped to a county and a zip code that is either a micropolitan area (rural – micropolitan) or an area that is not a metropolitan or a micropolitan area (rural – all other).

Estimates for LIS enrollees are available in the Appendix (Tables B1 and B2). Although LIS enrollees proceed through the coverage phases, they receive financial assistance with premiums, deductibles, and copayments so their out-of-pocket spending, even for enrollees who reach the catastrophic coverage phase, is much lower than non-LIS enrollees.

Medical Conditions for Enrollees Who Reach the Catastrophic Coverage Phase

Table 5 presents the top five medical conditions that had the highest share of non-LIS enrollees who reached the catastrophic coverage phase in 2021 and their average out-of-pocket spending. The average out-of-pocket spending was highest for enrollees with cystic fibrosis (\$9,522 per enrollee), which is a genetically inherited disorder that primarily affects lung function. About 34 percent of enrollees with cystic fibrosis reached the catastrophic coverage phase. Enrollees with HIV had the highest share reaching the catastrophic coverage phase (79 percent). Through the year, enrollees with HIV paid about \$2,478 in out-of-pocket drug costs. Among non-LIS enrollees with diabetes who use insulin, about 44 percent (or 186,000 enrollees) reached the catastrophic coverage phase and they paid an average of \$2,031 in out-of-pocket spending for Part D drugs. The remaining medical conditions presented in Table 5 are for blood cancers (multiple myeloma including other neoplastic disorders and chronic myeloid leukemia).

Table 5. Top 5 Medical Conditions with Highest Share of Non-LIS Enrollees Reaching Catastrophic Coverage Phase and their Out-Of-Pocket Spending, 2021

Medical Conditions	Number of Enrollees Taking Part D Drugs	Number of Enrollees in Catastrophic Coverage Phase	Percent in Catastrophic Coverage Phase	Average Out-Of-Pocket Spending Per Enrollee for Enrollees in Catastrophic Coverage Phase ^a
HIV/AIDS	54,988	43,367	79%	\$2,478
Diabetes with Insulin Use	425,089	186,428	44%	\$2,031
Multiple Myeloma*	105,013	36,756	35%	\$7,565
Cystic Fibrosis	3,257	1,110	34%	\$9,522
Chronic Myeloid Leukemia	20,474	5,866	29%	\$4,712

Source: Out-of-pocket spending calculated using the 2021 Medicare Part D Prescription Drug Event data and Part D Enrollment data.

*Includes Other Neoplastic Disorders related to bone marrow dysfunction.

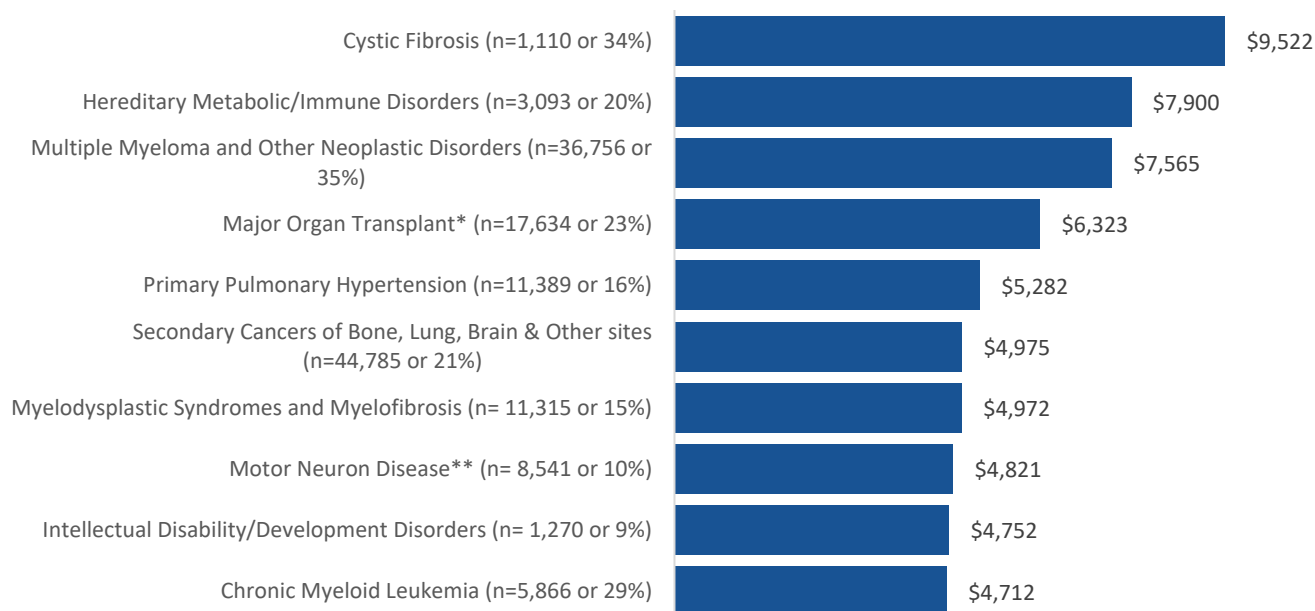
Notes: ^aEstimates are total Part D average out-of-pocket spending per non-LIS enrollee for those who reached the catastrophic coverage phase in 2021. These estimates include Part D out-of-pocket spending for all phases.

Next, we examined the conditions with the highest average out-of-pocket drug spending among non-LIS Part D enrollees who reached the catastrophic coverage phase in 2021. Figure 5 presents these conditions along with the absolute number and percent of enrollees with the condition who reached the catastrophic coverage phase. For example, about 1,110 enrollees with cystic fibrosis reached the catastrophic coverage phase in 2021, which represents about 34 percent of non-LIS enrollees with this condition in Part D.

The average out-of-pocket drug spending per enrollee ranged from approximately \$4,712 for enrollees with chronic myeloid leukemia to \$9,522 per enrollee for those with cystic fibrosis. Four of the conditions include various systemic cancers (multiple myeloma, secondary cancers, myelodysplastic syndromes, and chronic

myeloid leukemia), while other conditions on the list include hereditary disorders, autoimmune disease, primary pulmonary hypertension, and organ transplantation.

Figure 5. Ten Medical Conditions with the Highest Average Annual Out-Of-Pocket Part D Drug Spending among Non-LIS Enrollees Who Reach the Catastrophic Coverage Phase in 2021



Source: Out-of-pocket costs calculated using the 2021 Medicare Part D Prescription Drug Event data and Part D Enrollment data.

Notes: ‘n’ refer to the number of enrollees with the condition and percent refers to the percent of enrollees with the medical condition that reached the catastrophic coverage phase in 2021. Estimates are total average out-of-pocket spending per non-LIS enrollee for those who reached the catastrophic coverage phase in 2021. These estimates include spending for all coverage phases.

*Major organ transplant excludes lung, kidney, and pancreas transplants. **Motor Neuron Disease includes Myasthenia Gravis, Amyotrophic Lateral Sclerosis, and Other Motor Neuron Disease.

We also examined prescription drugs that were used by 10,000 or more enrollees in 2022 and the average out-of-pocket spending specifically for these drugs among enrollees using these medications and who reached the catastrophic coverage phase. Results show that seven of the top 10 drugs taken by 10,000 or more enrollees with the highest average out-of-pocket spending were for oncology, which highlights the cost burden of cancer for Medicare enrollees (Table C1 in Appendix). This is consistent with existing research that finds a large share of out-of-pocket financial burden is due to cancer treatment, with oncology drugs making up over half of total Part B drug spending in 2021.²³

In addition, we examined average out-of-pocket spending for enrollees with various autoimmune diseases by demographic characteristics and the percentage of enrollees reaching the catastrophic coverage phase (Table C2 in Appendix). Results show that about 17 percent of non-LIS enrollees with diseases that require chronic immunosuppressive therapy reached the catastrophic coverage phase in 2022. Additionally, we examined average out-of-pocket costs specifically for biologics among enrollees who reached the catastrophic coverage

phase (Appendix Tables C3 and C4).^{*} Enrollees taking immune suppression treatments for rheumatologic diseases and psoriasis had the highest out-of-pocket spending for these drugs. These findings are also consistent with the results from previous analyses showing that biologic medications have contributed to growth in total Medicare drug spending.²⁴ Collectively, these findings suggest that Part D out-of-pocket prescription drug costs are concentrated among a subset of enrollees with specific medical conditions.

Part D Annual Out-Of-Pocket Drug Spending by State in 2022

We examined Part D out-of-pocket spending for each state in 2022 and modeled the distribution of out-of-pocket drug spending for enrollees with and without LIS (Table 6). In 2022, the states with the highest average Part D out-of-pocket spending for non-LIS enrollees were North Dakota (\$606 per enrollee), Nebraska (\$590 per enrollee), and Oklahoma (\$589). For LIS enrollees, the states with the highest average Part D out-of-pocket spending were Kentucky (\$90), North Dakota (\$89), and Alabama (\$81). The variations in mean and median annual out-of-pocket drug spending by state is driven by a number of factors, including differences in medical conditions and in the proportion of enrollees with LIS status.

Table 6. Part D Annual Out-Of-Pocket Spending for Enrollees by State in 2022

State	Non-LIS			LIS			Total (Non-LIS and LIS)		
	Number of Enrollees	Mean OOP (\$)	Median OOP (\$)	Number of Enrollees	Mean OOP (\$)	Median OOP (\$)	Number of Enrollees	Mean OOP (\$)	Median OOP (\$)
Alabama	585,515	\$523	\$250	284,624	\$81	\$30	870,139	\$378	\$138
Alaska	53,523	\$316	\$57	24,032	\$50	\$16	77,555	\$233	\$37
Arizona	861,325	\$443	\$143	297,780	\$42	\$8	1,159,105	\$340	\$75
Arkansas	339,687	\$521	\$222	181,972	\$72	\$20	521,659	\$365	\$107
California	3,805,184	\$378	\$120	1,865,506	\$37	\$16	5,670,690	\$266	\$57
Colorado	617,814	\$401	\$112	177,786	\$42	\$0	795,600	\$321	\$61
Connecticut	403,946	\$509	\$166	214,672	\$48	\$1	618,618	\$349	\$69
Delaware	146,341	\$484	\$201	41,191	\$63	\$14	187,532	\$392	\$127
District of Columbia	24,780	\$511	\$174	40,491	\$25	\$0	65,271	\$209	\$16
Florida	2,983,100	\$447	\$129	1,126,576	\$40	\$0	4,109,676	\$336	\$60
Georgia	1,024,270	\$529	\$206	477,385	\$74	\$24	1,501,655	\$385	\$104
Hawaii	168,087	\$328	\$136	59,804	\$32	\$0	227,891	\$251	\$76
Idaho	226,532	\$447	\$140	63,832	\$61	\$12	290,364	\$362	\$90
Illinois	1,388,504	\$510	\$197	528,878	\$44	\$0	1,917,382	\$382	\$93
Indiana	836,981	\$505	\$187	284,288	\$51	\$0	1,121,269	\$390	\$100
Iowa	449,847	\$535	\$187	113,482	\$62	\$4	563,329	\$440	\$119
Kansas	358,774	\$531	\$184	94,222	\$66	\$8	452,996	\$434	\$116
Kentucky	554,774	\$523	\$240	257,806	\$90	\$32	812,580	\$386	\$138

^{*} We only examined biologics taken by 10,000 or more enrollees in the catastrophic coverage phase and rank ordered by average out-of-pocket spending specifically for each drug.

State	Non-LIS			LIS			Total (Non-LIS and LIS)		
	Number of Enrollees	Mean OOP (\$)	Median OOP (\$)	Number of Enrollees	Mean OOP (\$)	Median OOP (\$)	Number of Enrollees	Mean OOP (\$)	Median OOP (\$)
Louisiana	478,784	\$528	\$242	289,844	\$64	\$20	768,628	\$353	\$101
Maine	198,404	\$417	\$144	101,473	\$43	\$3	299,877	\$290	\$65
Maryland	537,061	\$486	\$201	212,831	\$72	\$31	749,892	\$369	\$118
Massachusetts	795,634	\$490	\$208	376,434	\$49	\$8	1,172,068	\$348	\$96
Michigan	1,435,443	\$419	\$173	447,515	\$55	\$16	1,882,958	\$333	\$102
Minnesota	739,081	\$439	\$128	182,919	\$49	\$3	922,000	\$362	\$82
Mississippi	300,418	\$590	\$249	197,848	\$77	\$30	498,266	\$386	\$110
Missouri	814,773	\$487	\$170	256,954	\$61	\$5	1,071,727	\$385	\$99
Montana	146,277	\$468	\$158	41,063	\$66	\$21	187,340	\$380	\$102
Nebraska	239,631	\$590	\$208	56,185	\$66	\$4	295,816	\$490	\$132
Nevada	339,582	\$416	\$124	105,269	\$63	\$22	444,851	\$332	\$79
New Hampshire	197,424	\$472	\$174	49,369	\$76	\$27	246,793	\$393	\$120
New Jersey	1,055,504	\$499	\$194	319,275	\$49	\$4	1,374,779	\$395	\$113
New Mexico	226,178	\$406	\$156	125,908	\$50	\$16	352,086	\$279	\$71
New York	2,004,789	\$460	\$164	1,193,725	\$38	\$2	3,198,514	\$303	\$58
North Carolina	1,283,141	\$496	\$197	459,632	\$70	\$18	1,742,773	\$384	\$112
North Dakota	89,128	\$606	\$233	21,179	\$89	\$28	110,307	\$506	\$156
Ohio	1,599,399	\$475	\$169	511,384	\$51	\$0	2,110,783	\$372	\$98
Oklahoma	414,046	\$589	\$263	166,425	\$65	\$14	580,471	\$439	\$131
Oregon	560,735	\$429	\$156	189,980	\$56	\$15	750,715	\$335	\$92
Pennsylvania	1,807,454	\$477	\$182	613,392	\$57	\$11	2,420,846	\$371	\$103
Rhode Island	138,456	\$418	\$121	57,774	\$45	\$0	196,230	\$309	\$53
South Carolina	695,691	\$535	\$220	240,353	\$61	\$12	936,044	\$413	\$120
South Dakota	117,219	\$559	\$191	26,819	\$78	\$17	144,038	\$469	\$132
Tennessee	837,009	\$512	\$193	340,906	\$73	\$20	1,177,915	\$385	\$110
Texas	2,594,766	\$491	\$193	1,024,379	\$59	\$10	3,619,145	\$369	\$101
Utah	285,592	\$441	\$141	59,087	\$52	\$13	344,679	\$374	\$94
Vermont	94,600	\$467	\$141	33,318	\$55	\$22	127,918	\$360	\$82
Virginia	863,825	\$493	\$183	292,424	\$66	\$13	1,156,249	\$385	\$109
Washington	795,807	\$437	\$140	273,502	\$44	\$0	1,069,309	\$337	\$73
West Virginia	227,697	\$487	\$237	116,423	\$76	\$24	344,120	\$348	\$126
Wisconsin	788,856	\$453	\$159	221,345	\$41	\$0	1,010,201	\$362	\$94
Wyoming	69,651	\$528	\$195	15,742	\$73	\$11	85,393	\$444	\$133
Total*	38,279,655	\$462	\$164	14,784,568	\$53	\$9	53,064,223	\$348	\$85

Source: State estimates for Part D out-of-pocket spending calculated using the 2022 Medicare Part D Prescription Drug Event data and Part D Enrollment data.

* Totals include Medicare Part D enrollees residing in territories or outside the United States, who are not shown separately.

OOP = Out-Of-Pocket

Projected Impacts of the IRA on Part D Enrollees' Annual Out-Of-Pocket Spending

The second part of our study aims to understand the impact of the IRA's Part D redesign and drug-related provisions on enrollee out-of-pocket spending using a simulation model. Our simulation model estimated the impact of the IRA's Part D redesign and other drug-related provisions on enrollee out-of-pocket spending using two specifications: specification A includes the IRA Part D related provisions that are in effect in 2024 and specification B, our main specification, includes additional IRA Part D related provisions that are in effect in 2025, as described in Table 1. Note that not all IRA Part D related provisions were included in the modeling.*

Specification A: 2024 IRA Part D Impacts

Our modeling estimates suggest that the IRA's Part D related provisions that are in effect in 2024 (specification A) are projected to result in an annual reduction of 15 percent in average out-of-pocket Part D spending, declining from \$463 per enrollee (without the IRA) to \$394 per enrollee under the IRA in 2024. Overall, this results in an approximate \$3.6 billion reduction in out-of-pocket costs annually.

For the baseline scenario, using 2021 data, we projected spending in 2024 in the absence of the IRA. Under this scenario, about 3.9 million enrollees would have reached the catastrophic coverage phase and therefore met the catastrophic coverage threshold (about \$8,000 in 2024). Under the IRA, in 2024, this estimate is expected to reduce to about 3.65 million enrollees, a decline of about 7 percent. This is likely due to the cost sharing caps on insulin and vaccines. Under the IRA, the average out-of-pocket cost are projected to decline about 42 percent (\$611) for enrollees who would have previously reached the catastrophic coverage phase pre-IRA.†

Under the baseline scenario, in 2024, about 36.3 million non-LIS enrollees are projected to pay \$3,000 or less in out-of-pocket costs and about 913,000 non-LIS enrollees are projected to pay more than \$3,000. Under the IRA, about 36.8 million enrollees are projected to pay \$3,000 or less in out-of-pocket costs and about 507,000 enrollees are projected to pay more than \$3,000. Therefore, the percentage of non-LIS Part D beneficiaries spending more than \$3,000 out of pocket will drop due to the IRA from 2.5% to 1.4%, which represents about 407,000 fewer enrollees paying \$3,000 or more in a year. In 2025, as discussed below, *all* beneficiaries will have their Part D OOP spending capped at \$2,000.

Detailed average impact estimates per enrollee by LIS status are presented in Table 7A for specification A.

* For example, the potential impacts of the inflation rebate provisions and the impact of Part D drugs that are selected for negotiation are not included in the simulation model.

† This includes some enrollees who are in the catastrophic coverage phase in the baseline but would fall below the catastrophic coverage phase under the IRA.

Table 7A. Model Specification A: Projected Average Annual Out-Of-Pocket Impact Per Enrollee of 2024 Inflation Reduction Act Medicare Part D Redesign, by Low-income Subsidy (LIS) Status

Annual Out-Of-Pocket Spending	2024 Baseline (without IRA)	2024 Projected (with IRA)	IRA Policy Impact	Percentage Change
Non-LIS	\$610	\$541	-\$70	-11.4%
LIS	\$82	\$15	-\$67	-81.9%
All	\$463	\$394	-\$69	-14.9%

Source: ASPE Part D Simulation Model

Notes: Table 7A presents modeling estimates for annual enrollee out-of-pocket drug spending under the Inflation Reduction Act (IRA) in 2024 dollars. This specification includes only the IRA drug-related provisions that are modeled in this study that are in effect in 2024 as presented in Table 1. Estimates are based on a simulation of what would happen in 2024 without the IRA (baseline) and with the IRA (projected). The simulation model is based on a 10 percent random sample of PDE data in 2021.

Specification B: 2025 Part D IRA Impacts

Our results show that the IRA drug-related provisions modeled in this paper that are in effect in 2025 will reduce average out-of-pocket drug spending by 30 percent, a reduction of about \$144 per enrollee. At the 90th percentile for savings, this translates to savings of about \$298 and at the 95th percentile, this translates to savings of about \$709 per enrollee. Overall, this results in about a \$7.4 billion reduction in out-of-pocket costs in 2025. In specification B, as expected, the impact of the IRA is greater than in specification A because in 2025, the \$2,000 out-of-pocket cap goes into effect, which substantially limits out-of-pocket spending for enrollees.

When the IRA Part D drug-related provisions modeled are in effect, we project it will reduce out-of-pocket drug spending by 30 percent, declining from \$486 annually per enrollee to \$342 under the IRA in 2025

For the baseline scenario, using 2021 data, we estimated spending in 2025 in the absence of the IRA. Under this scenario, about 3.8 million enrollees are expected to reach the catastrophic coverage phase and therefore meet the catastrophic coverage threshold in the absence of the IRA, which is estimated to be about \$8,500. Among

enrollees who would reach the catastrophic coverage phase in the absence of the IRA, enrollees with high spending (those at the 90th percentile and 95th percentiles of out-of-pocket spending) are projected to have about \$4,000 and \$5,500 in out-of-pocket costs, respectively. Under the IRA, the number of enrollees who reach the catastrophic coverage phase would increase to 9.5 million enrollees, an increase of about 5.6 million enrollees or 147 percent from baseline. This increase in the number of enrollees in the catastrophic coverage phase in 2025 is due to the much lower out-of-pocket limit (\$2,000) imposed by the IRA. Under the IRA, the average out-of-pocket costs are projected to decline about 73 percent (\$1,126) for enrollees who would have previously reached the catastrophic coverage phase pre-IRA.

Additionally, in the baseline scenario, about 36.2 million non-LIS enrollees are projected to pay \$3,000 or less in out-of-pocket costs and about 1.1 million non-LIS enrollees are projected to have out-of-pocket spending greater than \$3,000 in 2025. Under the 2025 IRA, this changes so that enrollees no longer have out-of-pocket payments greater than the \$2,000 due to the out-of-pocket cap instituted by the IRA.

Detailed average impact estimates per enrollee by LIS status are presented in Table 7B for Specification B.

Table 7B. Model Specification B: Projected Enrollee Average Annual Out-Of-Pocket Impact of 2025 Inflation Reduction Act Medicare Part D Redesign, by Low-income Subsidy (LIS) Status (2025 dollars)

Annual Out-Of-Pocket Spending	2025 Baseline (without IRA)	2025 Projected (with IRA)	IRA Policy Impact	Percentage Change
Non-LIS	\$640	\$468	-\$171	-26.8%
LIS	\$86	\$13	-\$72	-84.3%
All	\$486	\$342	-\$144	-29.6%

Source: ASPE Part D Simulation Model

Notes: Table 7B presents modeling estimates for annual enrollee out-of-pocket drug spending under the Inflation Reduction Act (IRA) in 2025 dollars. Specification B includes all IRA drug-related provisions modeled in this study that are in effect in 2025 as presented in Table 1. Estimates are based on a simulation of what would happen in 2025 without the IRA (baseline) and with the IRA (projected). The simulation model is based on a 10 percent random sample of PDE data in 2021.

The IRA Part D provisions have a greater relative impact on LIS enrollees than non-LIS enrollees (84 percent vs. 27 percent in specification B), but larger absolute impact on non-LIS enrollees (\$171 in savings vs. \$72 in savings). LIS enrollees have higher gross drug costs, on average, than non-LIS enrollees, but have lower out-of-pocket spending because much of their cost sharing is covered by federal assistance. The dollar impact of the IRA on out-of-pocket drug spending is thus larger for non-LIS enrollees than for LIS enrollees. LIS enrollees, however, have a larger percentage impact because they will be more likely to reach the \$2,000 limit, toward which low-income cost sharing and third-party payments will all be counted, as they are now before the IRA out-of-pocket limit is implemented.

Distribution of Projected Savings

We examined the distribution of projected savings to understand how many people would save under the IRA. We began by examining those with the most savings, specifically, the projected population of enrollees who are expected to save at least \$1,000 or more in 2024 and 2025.

Table 8 presents the average savings distribution *only* among enrollees with savings of \$1,000 or more in 2024 and 2025. Among those who are expected to save \$1,000 or more, the average savings are projected to be about \$2,900 in 2024 for nearly 636,000 LIS and non-LIS enrollees and \$2,500 in 2025 for nearly 1.9 million LIS and non-LIS enrollees. Of the nearly 1.8 non-LIS enrollees saving over \$1,000 in out-of-pocket costs, about 1.1 million (63%) were in the catastrophic coverage phase in the baseline.*

* Our analysis shows that enrollees do not have to reach the catastrophic coverage phase to save over \$1,000, as the baseline TrOOP limit is about \$8,500.

Table 8. Average Out-Of-Pocket Savings Among Enrollees with Projected Savings of \$1,000 or More

	Number of Enrollees	Policy Impact			
		Average OOP Savings Per Enrollee	Percentage Change	Median OOP Savings Per Enrollee	Average OOP Savings at the 90 th Percentile
Specification A:					
2024					
Non-LIS	579,000	\$2,948	56.8%	\$1,798	\$6,607
LIS	56,740	\$1,939	88.4%	\$1,916	\$2,594
Total	635,740	\$2,858	58.0%	\$1,806	\$6,219
Specification B:					
2025					
Non-LIS	1,787,390	\$2,504	65.7%	\$1,798	\$4,265
LIS	69,300	\$2,060	86.4%	\$1,915	\$2,857
Total	1,856,690	\$2,487	66.2%	\$1,801	\$4,165

Source: ASPE Part D Simulation Model

Notes: OOP=Out-Of-Pocket

Table 9 presents demographic and health characteristics for non-LIS enrollees who are expected to save \$1,000 or more. Results show that a larger share of AI/AN non-LIS enrollees (11 percent) are expected to have out-of-pocket savings of \$1,000 or more than other racial/ethnic groups, with average out-of-pocket savings of about \$2,460, followed by White enrollees (5 percent with average savings of \$2,480). Among non-LIS enrollees with health conditions, a greater share of those with HIV (about 71 percent) and those who are long-term insulin users (51 percent) are expected to have savings of at least \$1,000 or more, with enrollees with HIV demonstrating the largest average out-of-pocket savings (\$3,181) across the health conditions examined.

Table 9. Demographic Characteristics and Average Savings Among Non-LIS Enrollees with Projected Savings of \$1,000 or More in 2025

Demographic Characteristics	Number of Non-LIS Enrollees	Number of Non-LIS Enrollees with Savings of \$1,000 or More	Percent of Non-LIS Enrollees with at least \$1,000 in Out-Of-Pocket Savings	Average Out-Of-Pocket Savings among those with \$1,000 or more in savings
Age				
< 65	3,437,750	175,600	5.1%	\$2,892
65-69	10,279,640	460,880	4.5%	\$2,506
70-74	9,531,160	468,010	4.9%	\$2,483
75-79	6,498,130	341,350	5.3%	\$2,480
80-84	3,991,460	200,410	5.0%	\$2,436
85-89	2,207,650	98,270	4.5%	\$2,302
90+	1,313,870	42,870	3.3%	\$2,085
Gender				
Women	20,691,770	857,070	4.1%	\$2,444
Men	16,567,890	930,320	5.6%	\$2,559
Race & Ethnicity ^a				
White	30,098,000	1,512,890	5.0%	\$2,479
Black	2,629,970	107,040	4.1%	\$2,832

Demographic Characteristics	Number of Non-LIS Enrollees	Number of Non-LIS Enrollees with Savings of \$1,000 or More	Percent of Non-LIS Enrollees with at least \$1,000 in Out-Of-Pocket Savings	Average Out-Of-Pocket Savings among those with \$1,000 or more in savings
Latinos	2,317,020	72,800	3.1%	\$2,468
Asian	1,035,170	33,780	3.3%	\$2,531
American Indian/Alaskan Native	67,130	7,470	11.1%	\$2,457
Other	1,112,370	53,410	4.8%	\$2,590
Geographic Area^b				
Urban - Metropolitan	30,323,000	1,453,970	4.8%	\$2,515
Rural - Micropolitan	3,525,290	168,620	4.8%	\$2,448
Rural - All Other	2,454,360	119,960	4.9%	\$2,460
Health Characteristics				
HIV	68,240	48,380	70.9%	\$3,181
Non-HIV	37,191,420	1,739,010	4.7%	\$2,485
Long-term Insulin User	452,080	229,760	50.8%	\$2,116
Non-long-term Insulin User	36,807,580	1,557,630	4.2%	\$2,561
Rheumatic Disorders	562,740	80,960	14.4%	\$2,894
Non-Rheumatic Disorders	36,696,920	1,706,430	4.7%	\$2,485

Source: ASPE Part D Simulation Model

Notes: Savings are in 2025 dollars.

^aEstimates for race and ethnicity were updated from the version of this Report published in July 2023 to correct undercounting of some racial and ethnic groups.

^bEstimates for geographic area were updated from the version of this Report published in July 2023 to classify micropolitan areas as rural areas. Geographic area estimates are based on mapping of beneficiary county and zip code information in the Medicare Enrollment Database to Census Core-Based Statistical Areas (CBSAs). Enrollees residing within a CBSA that is metropolitan are classified as urban. Enrollees are classified as rural if they reside in areas that can be mapped to a county and a zip code that is either a micropolitan area (rural – micropolitan) or an area that is not a metropolitan or a micropolitan area (rural – all other). The number of enrollees across all geographic areas may not sum to the total number of non-LIS enrollees due to missing or incomplete geographic information for some enrollees.

Table 10A and Table 10B show savings thresholds and the number of enrollees expected to save under each threshold across the entire population of enrollees in Part D. Our analyses show that in 2024, 15.4 million enrollees (or 30 percent) would have savings under the IRA provisions that are in effect that year. In 2025, 18.7 million or 36 percent of enrollees would have savings under the IRA provisions that are in effect that year.

Table 10A. Specification A: Distribution of Projected Out-Of-Pocket Savings for 2024 IRA Drug-Related Provisions, by LIS Status

Projected IRA Savings	Non-LIS		LIS		All	
	Number of Enrollees	Percent of Enrollees	Number of Enrollees	Percent of Enrollees	Number of Enrollees	Percent of Enrollees
Savings <= \$0 ^a	32,202,680	86.4%	4,052,330	28.2%	36,255,010	70.2%
\$0 < Savings <= \$100	2,007,510	5.4%	7,328,150	51.0%	9,335,660	18.1%
\$100 < Savings <= \$200	875,310	2.3%	1,597,120	11.1%	2,472,430	4.8%
\$200 < Savings <= \$300	774,740	2.1%	417,360	2.9%	1,192,100	2.3%
\$300 < Savings <= \$400	205,430	0.6%	735,860	5.1%	941,290	1.8%
\$400 < Savings <= \$500	173,440	0.5%	103,400	0.7%	276,840	0.5%
\$500 < Savings <= \$600	124,980	0.3%	34,010	0.2%	158,990	0.3%
\$600 < Savings <= \$700	99,870	0.3%	17,870	0.1%	117,740	0.2%
\$700 < Savings <= \$800	83,590	0.2%	11,470	0.1%	95,060	0.2%
\$800 < Savings <= \$900	71,510	0.2%	7,850	0.1%	79,360	0.2%
\$900 < Savings <= \$1,000	61,600	0.2%	5,910	0.0%	67,510	0.1%
Savings > \$1,000	579,000	1.6%	56,740	0.4%	635,740	1.2%
Total	37,259,660	100.0%	14,368,070	100.0%	51,627,730	100.0%

Source: ASPE Part D Simulation Model

Notes: Savings are in 2024 dollars. Enrollment is based on 2021 levels.

^aThere are situations where an enrollee may have an increase in out-of-pocket spending under the 2024 IRA drug-related provisions.

Table 10B. Specification B: Distribution of Projected Out-Of-Pocket Savings for 2025 IRA Drug-Related Provisions, by LIS Status

Projected IRA Savings	Non-LIS		LIS		All	
	Number of Enrollees	Percent of Enrollees	Number of Enrollees	Percent of Enrollees	Number of Enrollees	Percent of Enrollees
Savings <= \$0 ^a	28,849,140	77.4%	4,039,670	28.1%	32,888,810	63.7%
\$0 < Savings <= \$100	2,056,990	5.5%	7,287,500	50.7%	9,344,490	18.1%
\$100 < Savings <= \$200	1,116,020	3.0%	1,538,980	10.7%	2,655,000	5.1%
\$200 < Savings <= \$300	1,115,240	3.0%	480,400	3.3%	1,595,640	3.1%
\$300 < Savings <= \$400	506,700	1.4%	714,390	5.0%	1,221,090	2.4%
\$400 < Savings <= \$500	443,790	1.2%	139,870	1.0%	583,660	1.1%
\$500 < Savings <= \$600	353,190	0.9%	46,660	0.3%	399,850	0.8%
\$600 < Savings <= \$700	309,930	0.8%	20,790	0.1%	330,720	0.6%
\$700 < Savings <= \$800	275,710	0.7%	13,950	0.1%	289,660	0.6%
\$800 < Savings <= \$900	242,960	0.7%	9,440	0.1%	252,400	0.5%
\$900 < Savings <= \$1,000	202,600	0.5%	7,120	0.0%	209,720	0.4%
Savings > \$1,000	1,787,390	4.8%	69,300	0.5%	1,856,690	3.6%
Total	37,259,660	100.0%	14,368,070	100.0%	51,627,730	100.0%

Source: ASPE Part D Simulation Model

Notes: Savings are in 2025 dollars. Enrollment is based on 2021 levels.

^aThere are situations where an enrollee may have an increase in out-of-pocket spending under the 2024 IRA drug-related provisions.

The distribution of savings suggest that a sizable subset of the Medicare Part D enrollee population is expected to save in out-of-pocket costs under the IRA. In 2025, this translates to about 36 percent of all enrollees who are projected to have savings, including 23 percent of non-LIS enrollees and 72 percent of LIS enrollees. Given the subset of enrollees that are expected to save under the IRA’s drug related provisions, we examined the average annual out-of-pocket savings per enrollee taking into account *only* enrollees with savings in 2025. Our results (Table 11) suggest that average out-of-pocket costs will amount to about \$396 in savings per enrollee with savings, with greater savings accruing to non-LIS enrollees, who would save about \$759 per enrollee, than LIS enrollees.

Table 11. Specification B: Projected Average Annual Out-Of-Pocket Savings Per Enrollee Among Enrollees with Savings in 2025

LIS Status	Total Savings	Number of Enrollees with Savings	Out-Of-Pocket Savings for Each Enrollee (Among Enrollees with Savings)
Non-LIS	\$6,386,000,000	8,410,520	\$759
LIS	\$1,037,000,000	10,328,400	\$100
Total	\$7,422,000,000	18,738,920	\$396

Source: ASPE Part D Simulation Model

Notes: Savings are shown only for enrollees who had out-of-pocket savings under 2025 IRA provisions, which represent about 36 percent of all enrollees. Savings are in 2025 dollars.

We also examined savings by demographic groups to understand differences in savings. Appendix Table D1 presents the policy impact and the percent change in out-of-pocket spending from baseline for each simulation model specification. Our findings show that generally, the share of savings accrue for certain demographic groups across specifications. Enrollees under the age of 65 have savings of about 44 percent in out-of-pocket spending under 2025 IRA provisions. This is consistent with our earlier findings that show this age group has higher out-of-pocket spending than other age groups, likely because they qualify for Medicare based on disability or illness. Men have slightly more savings than women (about 4 percentage point difference in 2025). Among racial and ethnic groups, AI/AN enrollees have the greatest reduction in out-of-pocket savings in 2025. Enrollees in rural and urban areas have similar reductions in out-of-pocket spending. As expected, non-LIS enrollees have greater reduction in out-of-pocket spending compared to LIS enrollees (\$171 vs. \$72), but the relative difference is greater for LIS enrollees. Enrollees in rural and urban areas have similar reductions in out-of-pocket spending.

Results also show that enrollees with HIV are expected to have the largest reduction in out-of-pocket spending (69 percent), followed by enrollees who use insulin long-term (63 percent), and enrollees with rheumatic disorders (44 percent).

Savings by State

We modeled the impact of the IRA Part D redesign on Part D out-of-pocket spending for enrollees in each state (Table 12). Our results show that the states with the largest average savings per enrollee who have savings in out-of-pocket costs are Nebraska (\$387) and Wyoming (\$375) in 2024 (Specification A) and Nebraska (\$630) and Wyoming (\$608) in 2025 (Specification B).

Table 12. Projected Impact of Inflation Reduction Act Medicare Part D Redesign for Enrollees Expected to Have Out-Of-Pocket Savings, by State, 2024 and 2025

State	Specification A: 2024 Savings (2024 dollars)			Specification B: 2025 Savings (2025 dollars)		
	Number of Enrollees with Out-Of-Pocket Savings	Average Savings per Enrollee with Savings	Total Estimated Out-Of-Pocket Savings	Number of Enrollees with Out-Of-Pocket Savings	Average Savings per Enrollee with Savings	Total Estimated Out-Of-Pocket Savings
Alabama	306,150	\$218.33	\$66,840,296	366,890	\$359.73	\$131,983,143
Alaska	24,400	\$161.97	\$3,952,168	30,520	\$309.38	\$9,442,237
Arizona	319,030	\$220.77	\$70,433,176	388,850	\$379.35	\$147,508,867
Arkansas	177,740	\$210.48	\$37,410,810	203,210	\$341.84	\$69,464,876
California	1,914,530	\$162.25	\$310,630,320	2,180,530	\$295.51	\$644,379,120
Colorado	177,270	\$272.37	\$48,283,780	220,050	\$451.28	\$99,304,666
Connecticut	210,880	\$209.37	\$44,151,087	255,900	\$367.55	\$94,055,573
Delaware	48,030	\$257.14	\$12,350,623	63,350	\$448.51	\$28,413,083
District of Columbia	31,270	\$120.61	\$3,771,380	33,190	\$183.87	\$6,102,580
Florida	1,212,260	\$235.12	\$285,027,129	1,479,230	\$401.15	\$593,397,513
Georgia	498,960	\$240.82	\$120,161,017	589,320	\$394.96	\$232,756,502
Hawaii	68,180	\$140.50	\$9,579,566	82,130	\$280.75	\$23,057,663
Idaho	65,470	\$275.83	\$18,058,327	82,160	\$461.75	\$37,937,117
Illinois	470,160	\$248.88	\$117,015,573	597,880	\$432.70	\$258,702,317
Indiana	306,360	\$278.52	\$85,328,914	385,650	\$465.07	\$179,352,376
Iowa	126,560	\$327.45	\$41,442,197	163,690	\$524.51	\$85,857,481
Kansas	100,930	\$333.43	\$33,653,011	129,630	\$550.04	\$71,301,576
Kentucky	280,240	\$223.84	\$62,727,677	333,560	\$359.04	\$119,760,791
Louisiana	281,590	\$189.77	\$53,436,767	327,110	\$320.05	\$104,692,595
Maine	110,280	\$178.66	\$19,702,230	126,850	\$298.30	\$37,839,589
Maryland	232,500	\$226.56	\$52,675,430	284,990	\$387.91	\$110,551,046
Massachusetts	406,650	\$193.52	\$78,694,886	481,730	\$333.23	\$160,525,210
Michigan	541,020	\$208.35	\$112,723,226	672,860	\$356.00	\$239,539,146
Minnesota	184,490	\$298.18	\$55,012,011	234,800	\$483.22	\$113,461,163
Mississippi	177,700	\$226.86	\$40,313,171	203,300	\$364.26	\$74,054,703
Missouri	276,380	\$278.65	\$77,014,526	348,280	\$461.94	\$160,886,006
Montana	44,830	\$283.96	\$12,730,030	54,010	\$460.60	\$24,877,143
Nebraska	67,170	\$387.17	\$26,006,108	88,600	\$629.59	\$55,781,343
Nevada	117,370	\$266.68	\$31,300,207	143,020	\$433.81	\$62,043,947
New Hampshire	56,260	\$307.09	\$17,276,733	72,960	\$490.01	\$35,751,168
New Jersey	352,520	\$288.27	\$101,620,278	473,370	\$519.78	\$246,047,780
New Mexico	110,150	\$167.84	\$18,487,579	125,870	\$272.72	\$34,327,699
New York	928,480	\$212.17	\$196,995,599	1,145,400	\$389.63	\$446,277,061
North Carolina	542,140	\$243.55	\$132,040,481	662,600	\$405.85	\$268,914,391

North Dakota	26,380	\$298.26	\$7,868,054	33,050	\$505.87	\$16,718,953
Ohio	541,670	\$271.58	\$147,107,228	687,430	\$451.18	\$310,154,676
Oklahoma	166,080	\$262.46	\$43,589,795	206,000	\$452.25	\$93,164,394
Oregon	185,550	\$231.55	\$42,963,391	224,100	\$388.30	\$87,017,149
Pennsylvania	645,530	\$269.94	\$174,255,025	829,770	\$466.79	\$387,330,525
Rhode Island	56,590	\$197.75	\$11,190,442	68,120	\$339.62	\$23,134,972
South Carolina	270,890	\$251.06	\$68,009,386	334,960	\$434.55	\$145,557,773
South Dakota	31,210	\$371.89	\$11,606,591	39,710	\$586.73	\$23,299,064
Tennessee	379,460	\$255.77	\$97,054,529	459,280	\$417.36	\$191,685,868
Texas	1,098,260	\$234.83	\$257,901,924	1,323,430	\$399.64	\$528,899,748
Utah	75,960	\$291.68	\$22,156,230	95,950	\$490.54	\$47,067,108
Vermont	36,350	\$308.85	\$11,226,635	44,030	\$491.89	\$21,658,034
Virginia	314,440	\$266.35	\$83,749,536	390,400	\$440.62	\$172,017,610
Washington	288,470	\$243.89	\$70,355,127	344,470	\$412.96	\$142,251,405
West Virginia	117,150	\$208.41	\$24,414,649	140,540	\$346.26	\$48,663,280
Wisconsin	234,150	\$283.82	\$66,457,248	298,750	\$474.91	\$141,879,088
Wyoming	16,260	\$375.37	\$6,103,591	21,920	\$607.58	\$13,318,138
Total*	15.4 million	\$231.19	\$3.6 billion	18.7 million	\$396.08	\$7.4 billion

Source: ASPE Part D Simulation Model

Notes:*Totals include Medicare Part D enrollees residing in territories or areas outside the United States, who are not shown separately.

DISCUSSION

Substantial numbers of Medicare enrollees in Part D experience high out-of-pocket spending burdens, but several provisions under the IRA will produce meaningful savings for more than 18 million people by 2025.

Medicare Part D enrollment doubled from 2007 to 2022, and the majority of enrollment growth was driven by increases in enrollment among non-LIS enrollees, who are also the most affected by Part D out-of-pocket costs. Our findings show that the share of enrollees reaching the catastrophic coverage phase (the phase under which enrollees have five percent cost sharing responsibilities pre-IRA) has been increasing over time. For some health conditions, the share of enrollees reaching the catastrophic coverage phase is particularly high (e.g., HIV where about 79 percent of non-LIS enrollees reached the catastrophic coverage phase or enrollees with diabetes who use insulin where about 44 percent of non-LIS enrollees reached the catastrophic coverage phase in 2021).

For enrollees who reach the catastrophic coverage phase, Part D out-of-pocket spending can be substantial.* In 2022, average annual Part D out-of-pocket spending was \$3,093 for the 1.5 million non-LIS enrollees who reached the catastrophic coverage phase. For at least half of Medicare enrollees, this represents about 10 percent of their total income on Part D drugs alone. For some health conditions, the out-of-pocket costs are much higher. For example, the average out-of-pocket drug spending per enrollee who reached the catastrophic coverage phase ranged from approximately \$4,712 for chronic myeloid leukemia, a type of cancer of the blood, to \$9,552 per enrollee for cystic fibrosis. These findings suggest that although the Part D coverage gap closed after implementation of the ACA and the Bipartisan Budget Act of 2018, some Medicare Part D enrollees with serious health conditions still face substantial out-of-pocket spending requirements to receive their medications.

* Other out-of-pocket medical costs are not included in the estimates presented in this Report.

Under the previous Part D benefit design, there were no caps to limit these out-of-pocket payments. For all Part D enrollees, and particularly for enrollees prescribed high priced medications or enrollees who take many medications, the absence of limits on out-of-pocket spending creates significant financial burdens. The IRA builds on the ACA and aims to reduce Medicare spending and enrollee out-of-pocket spending for Part D drugs through a series of provisions that change the Medicare Part D benefit structure, such as limiting Part D out-of-pocket spending to \$2,000 and indexed to inflation annually thereafter, instituting a \$35 monthly cap on each one-month supply of covered insulin products, eliminating cost sharing for Advisory Committee on Immunization Practices (ACIP)-recommended adult vaccines, and expanding the full LIS subsidy to certain people with limited resources who earn less than 150 percent of the federal poverty level.

Our analysis shows that when the full implementation of the Part D drug-related provisions of the IRA that are modeled in this paper are in effect, it will result in an estimated \$7.4 billion reduction in annual out-of-pocket spending for enrollees in 2025. This estimate is conservative, since the inflation rebate and negotiation provisions of the IRA are not modeled in this paper. Across the Medicare Part D population who do not receive LIS, this translates to an average annual savings of \$171 per non-LIS enrollee in 2025. Our analyses of out-of-pocket spending over time suggests that there is a subset of enrollees who incur significant financial burden due to out-of-pocket costs. When we examine out-of-pocket savings only among the subset of enrollees with savings, this translates to about \$759 saved annually per non-LIS enrollee with savings, which would benefit 8.4 million enrollees. We find that nearly 1.9 million enrollees, consisting mostly of non-LIS enrollees, will save at least \$1,000 in out-of-pocket costs. Collectively, these findings suggest that the subset of enrollees who had the highest out-of-pocket spending under the pre-IRA Part D benefit structure are expected to benefit the most from the IRA drug-related provisions modeled in this Report.

Our estimate for the number of enrollees who would be impacted by reductions in out-of-pocket drug spending is higher than previous studies that did not account for IRA provisions that both reduce enrollee cost sharing from five percent to zero percent after reaching the catastrophic threshold and lower the catastrophic threshold.^{12,13} As noted above, other aspects of the IRA including the inflation rebate cap and negotiation are expected to generate additional out of pocket savings for enrollees and taxpayers.

Our estimates do not account for the potential increases in Part D drug accessibility. The IRA's provisions may allow enrollees to obtain drugs that were previously unaffordable to them, allowing them to better manage their health conditions. Future research should explore the impact of these and other provisions, such as the IRA's inflation caps on drug prices and Medicare price negotiation of select high-cost drugs.

APPENDIX

Section A: IRA Simulation Model Estimate Methodology and Assumptions

Our simulation model estimated what would have happened to Part D out-of-pocket drug spending under the following IRA provisions, depending on whether they are in effect in 2024 or 2025.

Table A1. IRA-Part D Drug Related Provisions Included in the Simulation Model

Specification A: Provisions that are Modeled in combination and in effect in Calendar Year 2024	Specification B: Full set of Provisions Modeled that are in effect in Calendar Year 2025
<ul style="list-style-type: none">• Enrollee cost sharing (i.e., out-of-pocket spending) is limited to \$35 for a month’s supply of each covered insulin product and deductibles for covered insulin products are eliminated• Enrollee cost sharing for ACIP-recommended adult vaccines is eliminated• Full LIS assistance is expanded to people with limited resources who earn less than 150 percent of the federal poverty level• Reduction of enrollee coinsurance in the catastrophic coverage phase from five to zero percent	<ul style="list-style-type: none">• Enrollee cost sharing is limited to \$35 for a month’s supply of each covered insulin product and deductibles for covered insulin products are eliminated• Enrollee cost sharing for ACIP-recommended adult vaccines is eliminated• Full LIS assistance is expanded to people with limited resources who earn less than 150 percent of the federal poverty level• Reduction of enrollee coinsurance in the catastrophic coverage phase from five to zero percent• \$2,000 maximum annual out-of-pocket cap for enrollees, beginning in 2025, and indexed to inflation thereafter• Elimination of the coverage gap phase and replacement of the coverage gap discount program with the Manufacturer Discount Program; the new Manufacturer Discount Program requires a 10 percent manufacturer discount on brand drugs in the initial coverage phase and 20 percent in the catastrophic coverage phase• Government reinsurance decreases in the catastrophic coverage phase – from 80% to 20% for brand-name drugs, biologics, and biosimilars, and from 80% to 40% for generics

Notes: Estimates do not include non-IRA regulations that may impact drug spending (e.g., Part D regulations requiring that pharmacy price concessions be reflected at the point of sale beginning in January 2024). There will be changes to the Part D benefit between calendar years 2024 and 2025. For example, the accumulation of costs for TrOOP is different pre-IRA and in 2025, which is taken into account in our modeling.
ACIP = Advisory Committee on Immunization Practices

Our model did not include the estimated effects for all Part D drug related provisions in the IRA, which we expect to impact Part D out-of-pocket spending. For example, we did not model the following provisions:

- requiring Medicare to negotiate prices for certain high-expenditure, single source drugs,
- implementing Part B and Part D inflation rebates, and

- requiring plans to provide their plan enrollees with the option to pay out-of-pocket costs under the plan in monthly amounts that are spread throughout the year.

We used data from the Medicare Prescription Drug Event (PDE) file to estimate the total cost associated with prescription drug use by coverage phase nationally and for each state. PDE data for Medicare enrollees in traditional (also known as fee-for-service) and Medicare Advantage plans were used in the analyses. Specifically, we used data for each enrollee in a 10 percent random sample, thus capturing that enrollee's entire history of prescription drug use within the year. We matched the 2021 PDE data with Part D enrollment data to identify enrollees by LIS status, age, gender, race, ethnicity, and state. We fit our simulated Part D data to 2021 actuals, attempting to simultaneously match on the per-beneficiary out of pocket amounts by state as well as by demographic categories, while also attempting to match totals for covered plan paid amounts, reinsurance, and low-income subsidies.

To generate the policy impact of the IRA provisions modeled in this paper, we followed a multistep process:

- We calculated enrollment and baseline drug costs using the PDE files for 2021. We identified total and out-of-pocket costs in each individual enrollee's drug claims history observed in the Part D data and summed across all enrollees to generate overall spending estimates, spending estimates by drug payment phase, and spending estimates separately for each state and year. We allocated cost liabilities by payer.
- We inflated the 2021 out-of-pocket amounts to projected 2024 or 2025 values using the statutory formula for updating the Part D catastrophic threshold, which will continue to apply to the \$2,000 threshold after 2025. This formula led us to multiply 2021 average out-of-pocket spending per enrollee by an adjustment ratio of about 1.16 for Specification A, which captures the select IRA Part D-related provisions that are in effect in 2024, and 1.21 for Specification B, which captures the selected IRA Part D-related provisions that are in effect in 2025. This information was obtained from the Medicare Trustee's Report, Table IV.B8.²⁵
- We then used our microsimulation model to identify the impact of select provisions of the IRA. We assumed actual 2021 enrollment, plan design, and total drug cost (adjusted for inflation to 2024 and 2025 as above) as in the baseline but applied IRA provisions to each of the 2021 claims depending on when the provisions are in effect (see Table A1). We used the existing PDE data for each enrollee in 2021 to estimate out-of-pocket costs under the IRA drug-related provisions we modeled.
- We subtracted the difference between actual out-of-pocket spending in 2021 projected to 2024 and 2025 levels and out-of-pocket spending projected under the IRA provisions modeled in this Report.

Assumptions and Limitations of Modeling Estimates

Our simulation model includes a series of assumptions and limitations. The simulation uses utilization of drugs in 2021 as its source of data, but the drug classes that may be dominant in 2025 is unknown and may change over time. For 2024 and 2025 simulations, we use hypothetical benefit structures as a baseline, which represent what Part D would have looked like in absence of IRA. The baseline TrOOP threshold in 2024 was \$8,000 and was set to approximately \$8,500 in 2025, which is an estimate of what TrOOP would have been if the IRA had not been passed. For 2024, the phase transitions are already defined, and we modified only the benefit structure to change the catastrophic threshold, as well as applied insulin and vaccine copay limits. For 2025, we must assume what the benefit structure and phase transitions would look like under the previous Part D payment structure (pre-IRA). We applied standard coinsurance at 25 percent and an enrollee premium share of 25.5 percent.

Our model of the Part D redesign under the IRA does not fully take into account how manufacturers may respond to provisions of the IRA. For example, our estimates do not capture the potential increases in drug launch prices that manufacturers may adopt. However, provisions in the IRA aim to limit the ability of manufacturers and plans to raise costs and premiums. Specifically, provisions requiring manufacturers to pay a rebate if drug price increases outpace inflation, requiring Part D plans to increase their share of costs that are above the out-of-pocket spending cap, allowing Medicare to negotiate prices for select drugs, and requiring drug manufacturers to provide a price discount on brand name drugs above the out-of-pocket spending cap all aim to limit increases in drug costs and premiums.

Finally, our model does not take into account other federal or state programs that may reduce spending on Part D drugs.* Nor do we account for changes in enrollee behavior as a result of the IRA Part D provisions.

* For example, the impacts of the Part D Senior Savings Model (PDSS), which is a voluntary model that tested alternative Part D plan options that offer lower out-of-pocket costs for insulin as supplemental benefits, are not separately accounted for in our modeling. Reductions in out-of-pocket spending are included only in so far as the information is present in the 2021 PDE data. PDSS began January 1, 2021 under the CMS Innovation Center and will end December 31, 2023.

Section B: LIS Enrollees and Out-Of-Pocket Spending

We examined LIS enrollees' coverage phase at the end of the year and their average out-of-pocket spending in 2022. These results are presented in Tables B1 and B2. For LIS enrollees, about 2.7 million enrollees reached the catastrophic coverage phase and their average out-of-pocket spending was about \$87. There were some differences by age, race/ethnicity, and geographic location.

Table B1. Demographic Characteristics of Medicare Part D LIS Enrollees by Coverage Phase, 2022

Enrollee Characteristics	All (millions)	Deductible Phase	Initial Coverage Phase	Coverage Gap Phase	Catastrophic Phase
Total (N in Millions)	14.9	3.0	6.7	2.4	2.7
Gender					
Women	8.7	17.1%	46.8%	17.2%	18.9%
Men	6.2	25.0%	42.5%	14.8%	17.7%
Age					
<65	6.0	33.6%	34.4%	12.2%	19.8%
65-69	2.9	13.6%	51.5%	16.5%	18.4%
70-74	2.1	11.4%	50.7%	18.7%	19.2%
75-79	1.5	10.0%	51.4%	20.3%	18.3%
80-84	1.1	9.3%	52.7%	21.4%	16.6%
85+	1.3	10.4%	56.6%	20.7%	12.3%
Race & Ethnicity ^a					
White non-Latino	7.8	19.0%	44.6%	17.1%	19.3%
Black non-Latino	3.0	21.2%	45.5%	15.3%	18.0%
Latino	2.5	21.2%	47.0%	15.1%	16.7%
Asian American	1.0	22.4%	43.1%	15.9%	18.6%
American Indian / Alaska Native	0.1	25.7%	43.1%	14.5%	16.8%
Other or Unknown	0.5	28.2%	42.9%	13.3%	15.6%
Geographic Characteristics ^b					
Urban - Metropolitan	11.9	20.6%	45.1%	16.0%	18.3%
Rural - Micropolitan	1.3	11.2%	49.2%	18.8%	20.9%
Rural - All Other	1.0	10.8%	50.0%	18.9%	20.3%

Source: Demographic descriptive statistics calculated using the 2022 Medicare Part D Prescription Drug Event data and Part D Enrollment data.

Notes: Percentages are calculated for each demographic group by row using the total enrollees in each group as the denominator.

^aEstimates for race and ethnicity were updated from the version of this Report published in July 2023 to correct undercounting of some racial and ethnic groups.

^bEstimates for geographic characteristics were updated from the version of this Report published in July 2023 to classify micropolitan areas as rural areas. Geographic area estimates are based on mapping of beneficiary county and zip code information in the Medicare Enrollment Database to Census Core-Based Statistical Areas (CBSAs). Enrollees residing within a CBSA that is metropolitan are classified as urban. Enrollees are classified as rural if they reside in areas that can be mapped to a county and a zip code that is either a micropolitan area (rural – micropolitan) or an area that is not a metropolitan or a micropolitan area (rural – all other). The number of enrollees across all geographic areas may not sum to the total number of LIS enrollees due to missing or incomplete geographic information for some enrollees.

Table B2. Average Annual Out-Of-Pocket Part D Drug Spending Among LIS Medicare Enrollees by Demographic Characteristics and Coverage Phase by End of Year (2022)

Demographic Characteristics	Coverage Phase				
	All	Deductible Phase	Initial Coverage Phase	Coverage Gap Phase	Catastrophic Phase
Total	\$52	\$6	\$42	\$100	\$87
Gender					
Women	\$56	\$7	\$44	\$102	\$86
Men	\$48	\$5	\$39	\$97	\$89
Age					
<65	\$43	\$3	\$44	\$96	\$78
65-69	\$54	\$12	\$38	\$99	\$91
70-74	\$60	\$14	\$42	\$102	\$95
75-79	\$63	\$14	\$43	\$105	\$97
80-84	\$64	\$14	\$44	\$107	\$97
85+	\$56	\$13	\$41	\$100	\$91
Race & Ethnicity ^a					
White non-Latino	\$64	\$7	\$52	\$120	\$101
Black non-Latino	\$44	\$6	\$36	\$85	\$75
Latino	\$37	\$6	\$29	\$73	\$69
Asian	\$31	\$7	\$25	\$56	\$54
American Indian/Alaska Native	\$51	\$7	\$45	\$99	\$91
Other or Unknown	\$34	\$5	\$28	\$71	\$68
Geographic Characteristics ^b					
Urban - Metropolitan	\$49	\$6	\$39	\$94	\$83
Rural - Micropolitan	\$74	\$16	\$56	\$123	\$104
Rural - All Other	\$80	\$18	\$60	\$134	\$112

Source: Out-of-pocket spending calculated using the 2022 Medicare Part D Prescription Drug Event data and Part D Enrollment data.

Notes: Average out-of-pocket spending calculated based on the latest phase the enrollee is in by the end of the year and includes out-of-pocket spending across all coverage phases.

^aEstimates for race and ethnicity were updated from the version of this Report published in July 2023 to correct undercounting of some racial and ethnic groups.

^bEstimates for geographic characteristics were updated from the version of this Report published in July 2023 to classify micropolitan areas as rural areas. Geographic area estimates are based on mapping of beneficiary county and zip code information in the Medicare Enrollment Database to Census Core-Based Statistical Areas (CBSAs). Enrollees residing within a CBSA that is metropolitan are classified as urban. Enrollees are classified as rural if they reside in areas that can be mapped to a county and a zip code that is either a micropolitan area (rural – micropolitan) or an area that is not a metropolitan or a micropolitan area (rural – all other).

Section C: Out-Of-Pocket Spending for Part D Prescription Drugs

Among Medicare Part D enrollees (LIS and non-LIS), the top 10 Part D drugs ranked by average out-of-pocket spending for these medications among enrollees who reached the catastrophic coverage phase are presented in Table C1. These drugs are taken by at least 10,000 enrollees. Out-of-pocket spending for these drugs ranges from a high of \$5,376 for Revlimid, a drug typically used to treat cancer, to a low of \$1,910 for Nuplazid, a drug used to treat psychosis.

Table C1. Top 10 Part D Drugs Taken by at least 10,000 Enrollees who reach the Catastrophic Coverage Phase with Utilization Ranked by Out-Of-Pocket Spending in 2022

Brand Name	Biologic (Y/N)	General Indication	Most Common Diagnosis	Number of Enrollees Utilizing Drug	Average OOP Costs for Drug per Enrollee Using Drug
REVLIMID	N	Oncology	Multiple Myeloma or myelodysplastic syndrome	44,126	\$5,376
IMBRUVICA	N	Oncology	CLL and NHLs	21,687	\$5,366
POMALYST	N	Oncology	Multiple Myeloma	12,416	\$5,195
JAKAFI	N	Oncology	Myelodysplastic syndromes	15,820	\$4,795
CALQUENCE	N	Oncology	CLL	10,938	\$4,388
OFEV	N	Pulmonary	Idiopathic pulmonary fibrosis*	19,834	\$3,671
XTANDI	N	Oncology	Metastatic Castrate-resistant Prostate Cancer	15,535	\$2,858
VENCLEXTA	N	Oncology	CLL	14,549	\$2,849
STELARA	Y	Rheumatology	Psoriatic Arthritis and IBD	19,107	\$2,137
NUPLAZID	N	Psychology Neurology	Psychosis and Parkinson's associated psychosis	13,291	\$1,910

Source: 2022 Medicare Part D Prescription Drug Event data and Part D Enrollment data.

Notes: Scripts are ranked by average out-of-pocket spending for each drug.

*Idiopathic pulmonary fibrosis is a chronic disease that affects the lungs.

CLL = Chronic lymphocytic leukemia

NHL = Non-Hodgkin lymphoma

IBD = Inflammatory bowel disease

OOP = Out-Of-Pocket

We examined total Part D out-of-pocket spending for enrollees with various auto-immune diseases given the high costs of immunosuppressive treatments and the common immunosuppressive therapy regimens across the different conditions. Specifically, we examined out-of-pocket Part D drug spending for enrollees with systemic lupus erythematosus, rheumatoid arthritis, Sjogren's syndrome, ulcerative colitis, Crohn's disease, psoriasis and Graves' disease.*

For non-LIS enrollees, the average out-of-pocket cost per enrollee was higher for men (\$1,092) than women (\$949) (Table C2). Average out-of-pocket spending per enrollee was relatively similar across age groups, with the exception of enrollees who are younger than age 65 and those who are between the ages of 70 – 74; both of these groups had average out-of-pocket spending of about \$1,000.

* Hashimoto's thyroiditis was also included in this population

Table C2 also shows that about 17 percent of non-LIS enrollees with diseases that require chronic immunosuppressive therapy reached the catastrophic coverage phase in 2022. Additionally, 82,726 enrollees or about 15 percent of non-LIS enrollees paid more than the 2025 out-of-pocket cap under the IRA (\$1662, which is \$2000 deflated to 2022 dollars).

Table C2. Part D Out-Of-Pocket Spending for Non-LIS Enrollees on Chronic Immunosuppressive Therapies (2022)

Demographics	Number of Non-LIS Enrollees	Average Non-LIS OOP Spending (\$)	Percent of Enrollees in Catastrophic Coverage Phase	Number of Enrollees with Spending > \$2,000 ^a	Percent of Enrollees with Spending > \$2,000 ^a
Total	561,721	-	17.0%	82,726	14.7%
Gender					
Women	407,803	\$949	15.5%	56,630	13.9%
Men or Unknown	153,918	\$1,092	21.1%	26,096	17.0%
Age					
<65	69,361	\$1,008	17.9%	10,662	15.4%
65 – 69	154,508	\$999	18.2%	22,970	14.9%
70 – 74	150,026	\$1,006	17.9%	22,407	14.9%
75 – 79	104,261	\$988	16.5%	15,211	14.6%
80 – 84	54,199	\$942	14.1%	7,600	14.0%
85 – 89	21,934	\$890	11.9%	2,935	13.4%
90 and older	7,432	\$833	9.5%	941	12.7%
Race & Ethnicity ^b					
White non-Latino	463,777	\$1,028	16.9%	71,923	15.5%
Black non-Latino	37,863	\$752	14.2%	3,404	9.0%
Latino	33,011	\$612	18.6%	2,683	8.1%
Asian	10,423	\$866	17.5%	1,349	12.9%
AI/AN	1,728	\$1,814	33.1%	609	35.2%
Other	14,919	\$1,175	22.3%	2,758	18.5%

Source: Demographic descriptive statistics and out-of-pocket spending calculated using the 2022 Medicare Part D Prescription Drug Event data and Part D Enrollment data.

Notes: ^aThe \$2,000 out-of-pocket cap under the IRA goes into effect in 2025. We deflated this amount to 2022 dollars, which translates to \$1,662 in 2022. Estimates are presented for enrollees who exceeded the \$2,000 cap in 2025.

^bEstimates for race and ethnicity were updated from the version of this Report published in July 2023 to correct undercounting of some racial and ethnic groups.

OOP = Out-Of-Pocket

AI/AN= American Indian/Alaska Native

Out-Of-Pocket Spending for Biologics

Table C3 lists the top 10 highest average out-of-pocket cost for non-insulin biologics that are taken by at least 10,000 Medicare Part D enrollees who reach the catastrophic coverage phase. The highest average OOP spending (\$2,137 per enrollee) is for Stelara, which is an immune system suppressant often used to treat inflammatory conditions. Most of these non-insulin biologics in Table C3 are similarly used to treat rheumatologic and inflammatory disease.

Table C3. Top 10 Non-insulin Biologics taken by at least 10,000 Medicare Part D Enrollees with the Highest Average Out-Of-Pocket Spending for Each Drug Among Enrollees in the Catastrophic Coverage Phase, 2022

Brand name (Drug vs Drug-device)	Average OOP Costs for Each Drug Per Enrollee Using the Drug	Number of Enrollees Using the Drug	Indication	Most Commonly Associated Conditions
Stelara (Drug)	\$2,137	19,107	Rheumatologic: Immune system suppressant	Inflammatory bowel diseases and psoriatic arthritis
Enbrel (Drug)	\$1,159	10,383	Rheumatologic: Immune system suppressant	Rheumatoid arthritis and psoriatic arthritis
Enbrel Sureclick (Drug-device)	\$882	30,422	Rheumatologic: Immune system suppressant	Rheumatoid arthritis and psoriatic arthritis
Humira Pen (Drug-device)	\$823	14,810	Rheumatologic: Immune system suppressant	Rheumatoid arthritis and inflammatory bowel diseases
Humira (CF) Pen (Drug-device)	\$729	53,355	Rheumatologic: Immune system suppressant	Rheumatoid arthritis and inflammatory bowel diseases
Humira (CF) (Drug)	\$689	11,218	Rheumatologic: Immune system suppressant	Rheumatoid arthritis and inflammatory bowel diseases
Dupixent (Drug)	\$659	34,212	Rheumatologic: Immune system suppressant more specific to atopic pathways	Atopic dermatitis or mod-severe eczema and asthma
Kanjinti (Drug)	\$584	19,779	Oncology: HER2 targeted therapy for breast cancers	Breast cancer most commonly
Cosentyx Pen* (Drug-device)	\$562	13,220	Rheumatologic: Immune system suppressant	Psoriatic arthritis
Repatha Sureclick (Drug-device)	\$405	51,153	Cardiovascular: Novel targeted therapy for lowering cholesterol	Familial hypercholesterolemia or genetically inherited bad cholesterol syndromes

Source: Average out-of-pocket costs calculated using the 2022 Medicare Part D Prescription Drug Event data and Part D Enrollment data.

Notes: *Cosentyx pen represents a two-pen product.

OOP = Out-Of-Pocket

Table C4 presents a list of the five biologics with the top highest average out-of-pocket spending for enrollees reaching the catastrophic coverage phase. Strensiq, a replacement therapy used to treat people with perinatal/infantile- and juvenile-onset hypophosphatasia,* had the highest average out-of-pocket spending among Medicare Part D enrollees (LIS and non-LIS) who ended the year in the catastrophic phase in 2022. These biologics have high out-of-pocket costs, however the absolute number of enrollees taking these medications is small.

* Juvenile-onset hypophosphatasia is a rare inherited condition that affects the bones and may cause low bone mineral density, joint pain, skeletal issues, and other challenges. See here for complete details: [Childhood hypophosphatasia - About the Disease - Genetic and Rare Diseases Information Center \(nih.gov\)](https://rarediseasesinformation.org/rare-disease/childhood-hypophosphatasia)

Table C4. Biologics with the Highest Average Out-Of-Pocket Spending among Medicare Part D Enrollees in Catastrophic Coverage Phase, 2022

Brand Name	Number of Enrollees Utilizing Drug	Average OOP Costs for each Drug per Enrollee Using the Drug
Strensiq	164	\$39,681
Naglazyme	<10	\$21,976
Elelyso	<10	\$20,884
Kalbitor	42	\$11,831
Berinert	58	\$11,493

Source: Average out-of-pocket costs calculated using the 2022 Medicare Part D Prescription Drug Event data and Part D Enrollment data.

OOP = Out-Of-Pocket

Section D: Demographic Characteristics for Enrollees with Projected Savings

Our findings show that generally, the share of savings accrue for certain demographic groups across specifications. Enrollees under the age of 65 have savings of about 44 percent in out-of-pocket spending under 2025 IRA provisions. This is consistent with our earlier findings that show this age group has higher out-of-pocket spending than other age groups, likely because they qualify for Medicare based on disability or illness. Men have slightly more savings than women (about 4 percentage point difference in 2025). Among racial and ethnic groups, AI/AN enrollees have the greatest reduction in out-of-pocket savings in 2025, followed by Black enrollees. As expected, non-LIS enrollees have greater reduction in out-of-pocket spending compared to LIS enrollees (\$171 vs. \$72), but the relative difference is greater for LIS enrollees. Enrollees in rural and urban areas have similar reductions in out-of-pocket spending.

Results also show that enrollees with HIV are expected to have the largest reduction in out-of-pocket spending (69 percent), followed by enrollees who use insulin long-term (63 percent), and enrollees with rheumatic disorders (44 percent).

Table D1. Projected Annual Average Out-Of-Pocket Savings by Demographic Characteristics, by Specification

Demographic Characteristics	Specification A: 2024		Specification B: 2025	
	Policy Impact	Percent Change ^a	Policy Impact	Percent Change ^a
Age				
< 65	-\$81	-31%	-\$121	-44%
65-69	-\$69	-16%	-\$138	-30%
70-74	-\$72	-14%	-\$156	-29%
75-79	-\$71	-13%	-\$167	-28%
80-84	-\$62	-11%	-\$159	-27%
85-89	-\$48	-9%	-\$136	-24%
90+	-\$27	-6%	-\$95	-20%
Gender				
Women	-\$62	-14%	-\$128	-28%
Men	-\$78	-16%	-\$165	-32%
Race & Ethnicity ^b				
White	-\$71	-14%	-\$158	-29%
Black	-\$70	-23%	-\$113	-36%
Latinos	-\$55	-22%	-\$88	-33%
Asian	-\$49	-18%	-\$87	-31%
American Indian/Alaskan Native	-\$91	-24%	-\$164	-41%
Other	-\$67	-16%	-\$140	-31%
LIS Status				
Non-LIS	-\$70	-11%	-\$171	-27%
LIS	-\$67	-82%	-\$72	-84%
Geographic Characteristics ^c				
Urban - Metropolitan	-\$68	-15%	-\$144	-30%
Rural - Micropolitan	-\$72	-16%	-\$143	-30%
Rural - All Other	-\$74	-16%	-\$145	-30%
Health Care Characteristics				

HIV	-\$576	-45%	-\$925	-69%
Non-HIV	-\$67	-14%	-\$140	-29%
Long-term Insulin User	-\$533	-46%	-\$767	-63%
Non-long-term Insulin User	-\$61	-13%	-\$133	-28%
Rheumatic Disorder	-\$221	-25%	-\$405	-44%
Non-Rheumatic Disorder	-\$66	-15%	-\$139	-29%

Source: ASPE Part D Simulation Model

Notes: Specification A presents estimates in 2024 dollars and Specification B presents estimates in 2025 dollars.

^aPercent change is calculated relative to baseline out-of-pocket spending.

^bEstimates for race and ethnicity were updated from the version of this Report published in July 2023 to correct undercounting of some racial and ethnic groups.

^cEstimates for geographic characteristics were updated from the version of this Report published in July 2023 to classify micropolitan areas as rural areas. Geographic area estimates are based on mapping of beneficiary county and zip code information in the Medicare Enrollment Database to Census Core-Based Statistical Areas (CBSAs). Enrollees residing within a CBSA that is metropolitan are classified as urban. Enrollees are classified as rural if they reside in areas that can be mapped to a county and a zip code that is either a micropolitan area (rural – micropolitan) or an area that is not a metropolitan or a micropolitan area (rural – all other).

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The authors are grateful for the contributions of Acumen, LLC staff to the CMS Medicare data analysis and the simulation model. The statements expressed in this Issue Brief do not necessarily reflect the views of Acumen, LLC.

SUGGESTED CITATION

Sayed, BA, Finegold, K, Olsen, TA, Ashok, K, Schutz, S, Sheingold, S, De Lew, N, Sommers, BD. Inflation Reduction Act Research Series: Medicare Part D Enrollee Out-Of-Pocket Spending: Recent Trends and Projected Impacts of the Inflation Reduction Act. (Issue Brief No. HP-2023-19). Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. July 2023 (Revised January 2024).

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