

MEDICINES IN MEDICARE: PART D



Medicare is the government program that insures many of the nation's retirees and Americans with disabilities. Coverage for prescription medicines filled at a pharmacy first became available in 2006 under the Medicare Part D program. Private health plans administer the program and compete for beneficiary enrollment. These plans also negotiate with manufacturers, without government interference, to secure savings on medicines. This market-based approach has been successful since the program's beginning, but some in Washington now are considering fundamental change. The information that follows is based on the Part D benefit design and program rules in place at the end of 2021.

This chart pack contains information on prescription drug coverage under Part D in four subsections: 101, Choice and Competition, Improved Adherence and Outcomes, and A Prescription for the Future.

As Is Common With Commercial Insurance, Medicare Covers Medicines Under 2 Benefits

Medicare's retail pharmacy benefit is called Part D, and Medicare's medical benefit is called Part B.

MEDICARE

COMMERCIAL INSURERS

Part D



Retail Pharmacy Benefit

Includes most drugs, which are either picked up by patients at a retail pharmacy or delivered via mail order/specialty pharmacy.

Part B



Medical Benefit

Includes a minority of drugs, which generally must be administered by a physician or other health care professional

How Medicare Part D Works

PART D operates with plans competitively bidding against one another. Plans aggressively negotiate with manufacturers to secure discounted prices from manufacturers. In some cases, these negotiated savings are over and above mandatory discounts from manufacturers.



PLANS compete to deliver comprehensive, affordable coverage for beneficiaries and value for taxpayers.



MANUFACTURERS provide significant negotiated rebates and mandatory coverage gap payments that help fund the program.



BENEFICIARIES choose the plan with the coverage and costs that best meet their needs.



EXTRA HELP is available for enrollees of limited means through the Low-Income Subsidy program.

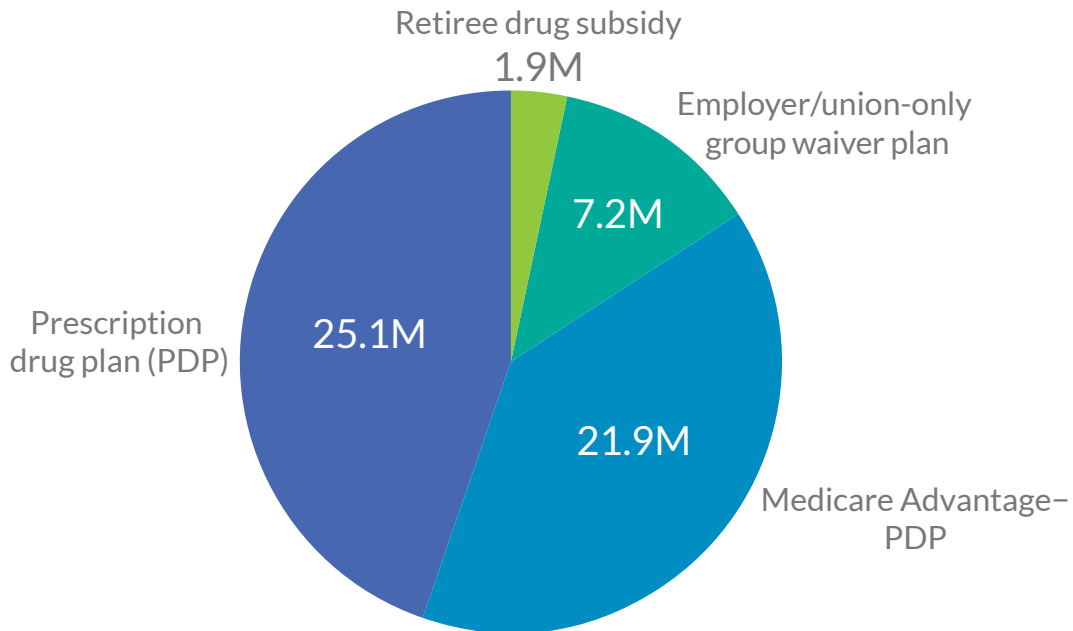


GOVERNMENT sets standards/oversees competition.

Sources of Prescription Drug Coverage for Seniors and People With Disabilities

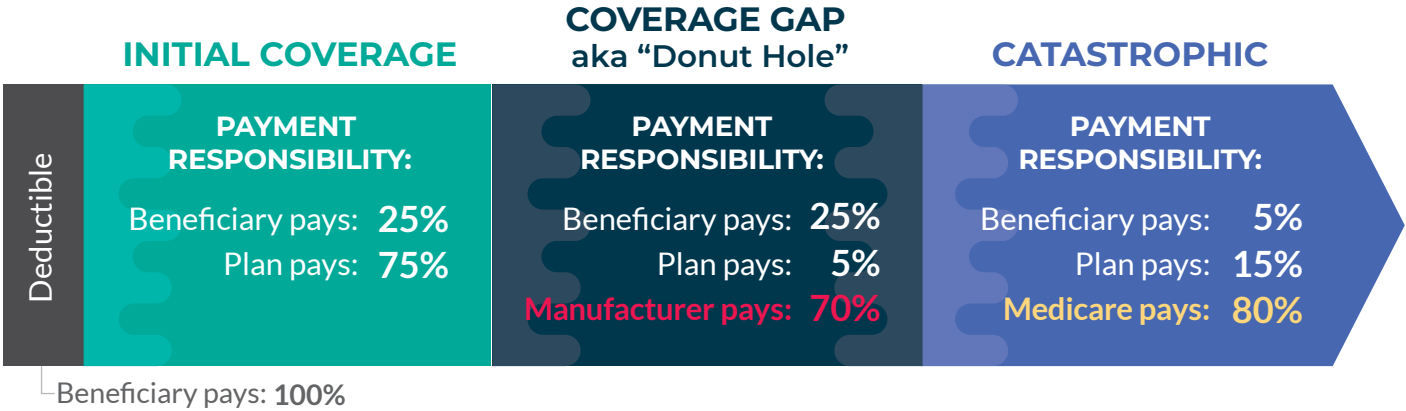
Medicare Part D plans covered more than 47 million beneficiaries out of more than 60 million total Medicare enrollees in 2020, either through Medicare Advantage or stand-alone prescription drug plans.

Prescription Drug Coverage Among Part D Medicare Beneficiaries, 2020*



*Excludes federal government and military retirees covered by either the Federal Employees Health Benefit Program or the TRICARE for Life program. Such programs qualify for the retiree drug subsidy, but the subsidy is paid since it would amount to the federal government subsidizing itself. Excludes those who had no drug coverage or had coverage less generous than Part D.

Part D Defined Standard Benefit

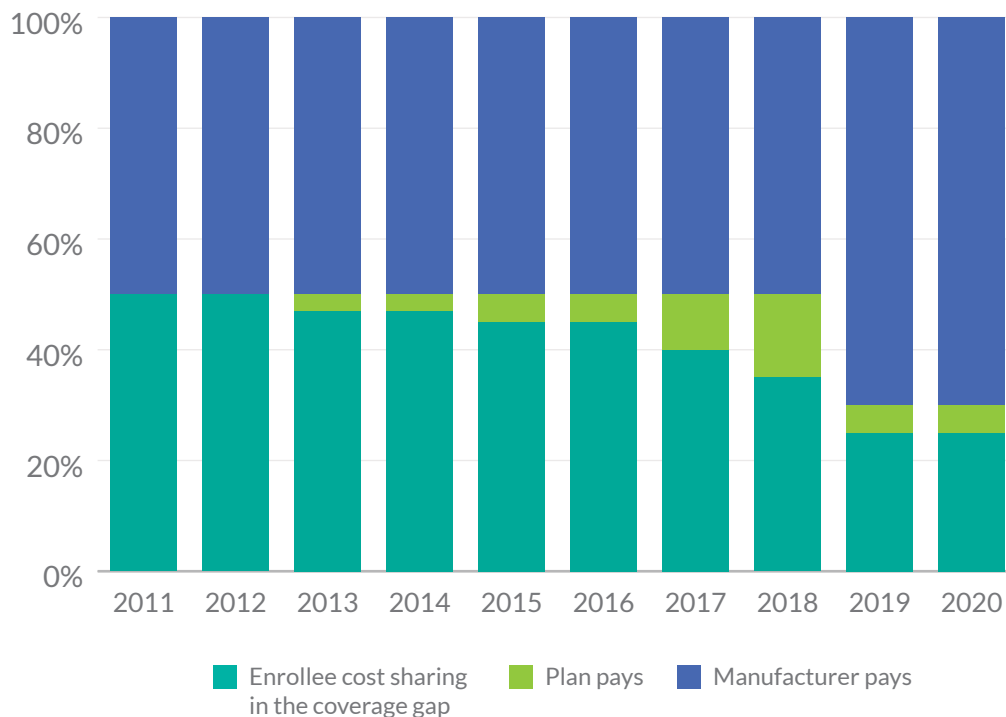


Each year, the standard benefit’s parameters change at the same rate as the annual change in beneficiaries’ average drug expenses. For 2021, discounts paid by brand manufacturers begin when a beneficiary without the Low-Income Subsidy has reached \$4,130 in cumulative drug spending and continue until the individual reaches \$6,550 in combined out-of-pocket spending and brand discounts.

Source: MedPAC³

Bipartisan Budget Act of 2018 Closed the Coverage Gap in 2019 and Beyond

Since 2010, nearly 12 million Medicare beneficiaries have saved over \$26 billion on prescription drugs as a result of manufacturer coverage gap discounts—an average savings of about \$2,272 per beneficiary.⁴



STARTING IN 2019⁵:

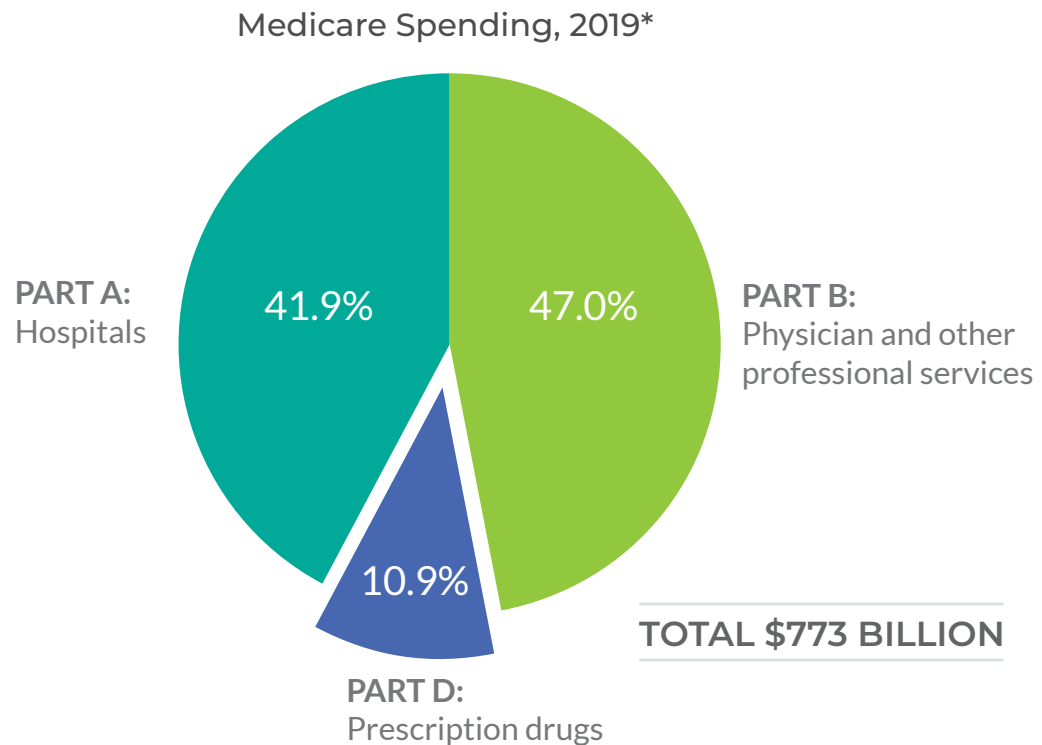
Manufacturers' brand discount increased to 70%, **plans'** liability decreased to 5%.

Beneficiaries pay 25% cost sharing in the coverage gap, similar to the pre-coverage gap cost sharing in a standard plan.

Sources: CMS⁴; KFF⁵

Part D Share of Medicare Expenditures

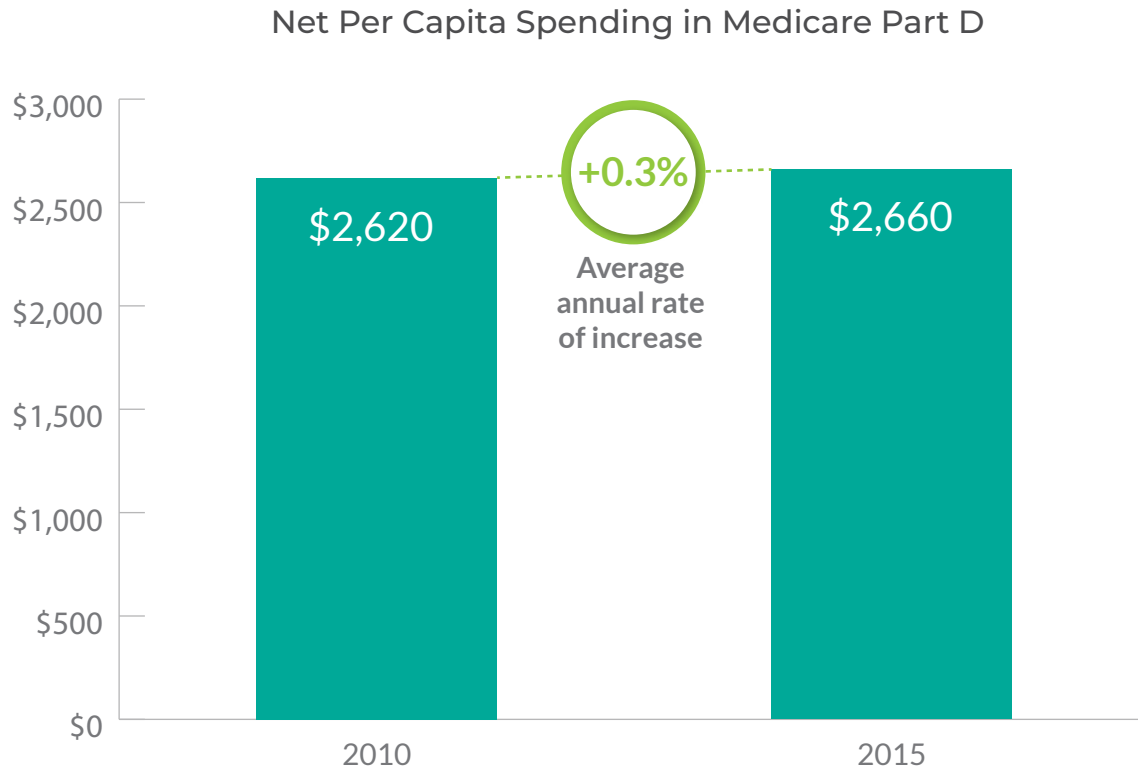
Medicare Part D drug spending, including brand and generic drugs, made up 11% of Medicare spending in 2019.



*Not including outlays for mandatory administration. Medicare Advantage (Part C) expenditures are apportioned among Parts A, B, and D according to type of service. Does not sum to 100% due to rounding.

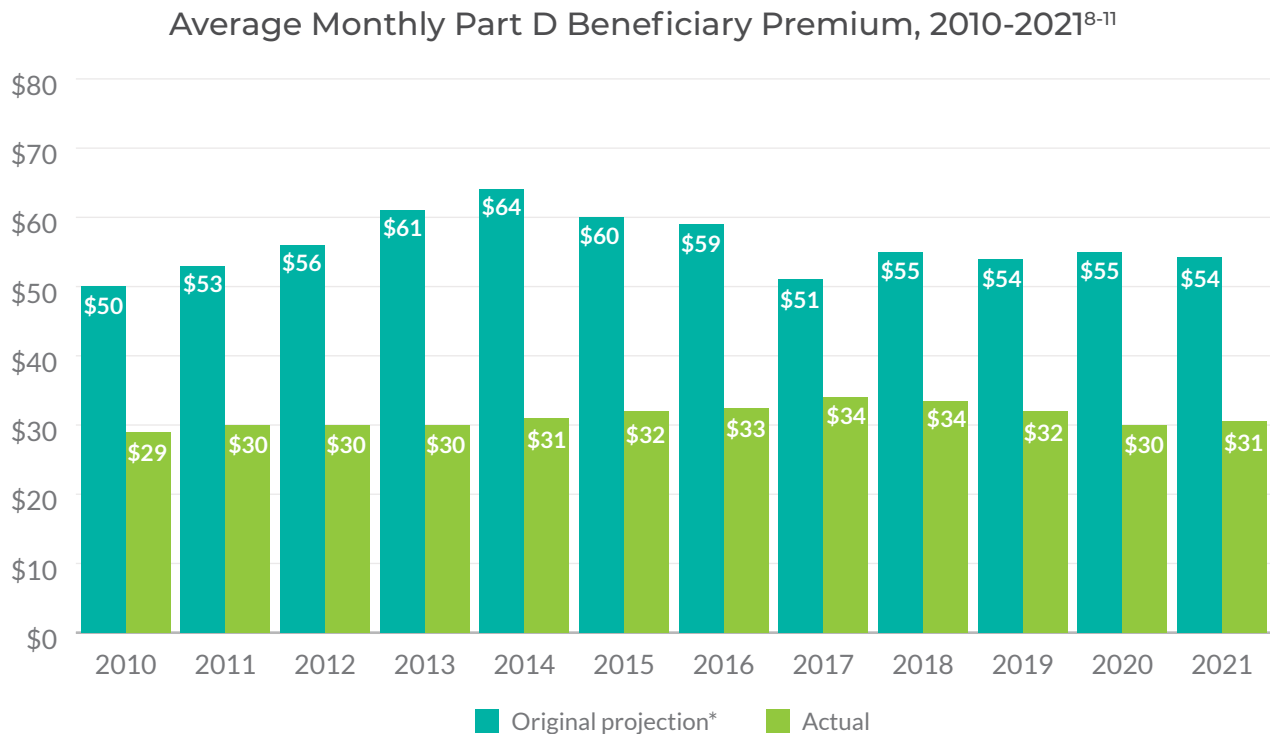
Source: PhRMA calculation of Congressional Budget Office (CBO) data⁶

Medicare Part D Spending Growth per Enrollee Has Been Stable Over Time



Source: CBO⁷

Average Beneficiary Premiums Are Far Below Government's Original Estimates

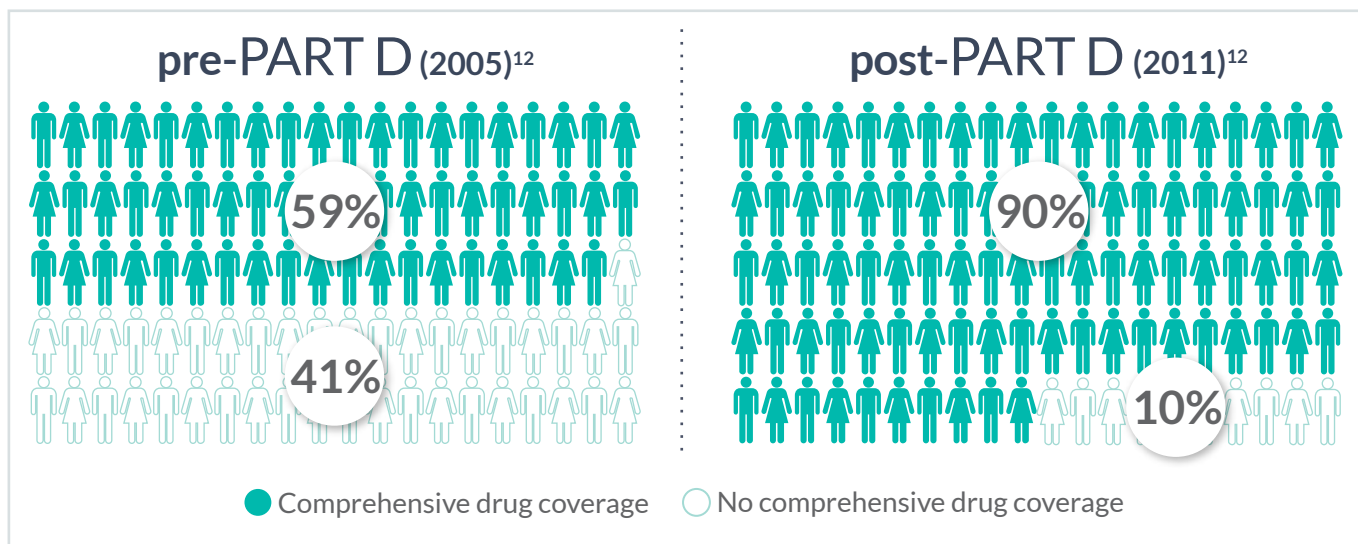


*All prior projection estimates are rounded to the nearest dollar.

Sources: CMS⁸; Medicare Trustees⁹⁻¹¹

Part D Expanded Coverage, Improved Access to Medicines, and Reduced Out-of-Pocket Costs

As a result of Part D, nearly 90% of Medicare beneficiaries have comprehensive drug coverage. Peer-reviewed research confirms Medicare Part D substantially reduced out-of-pocket costs and increased access to medicines.



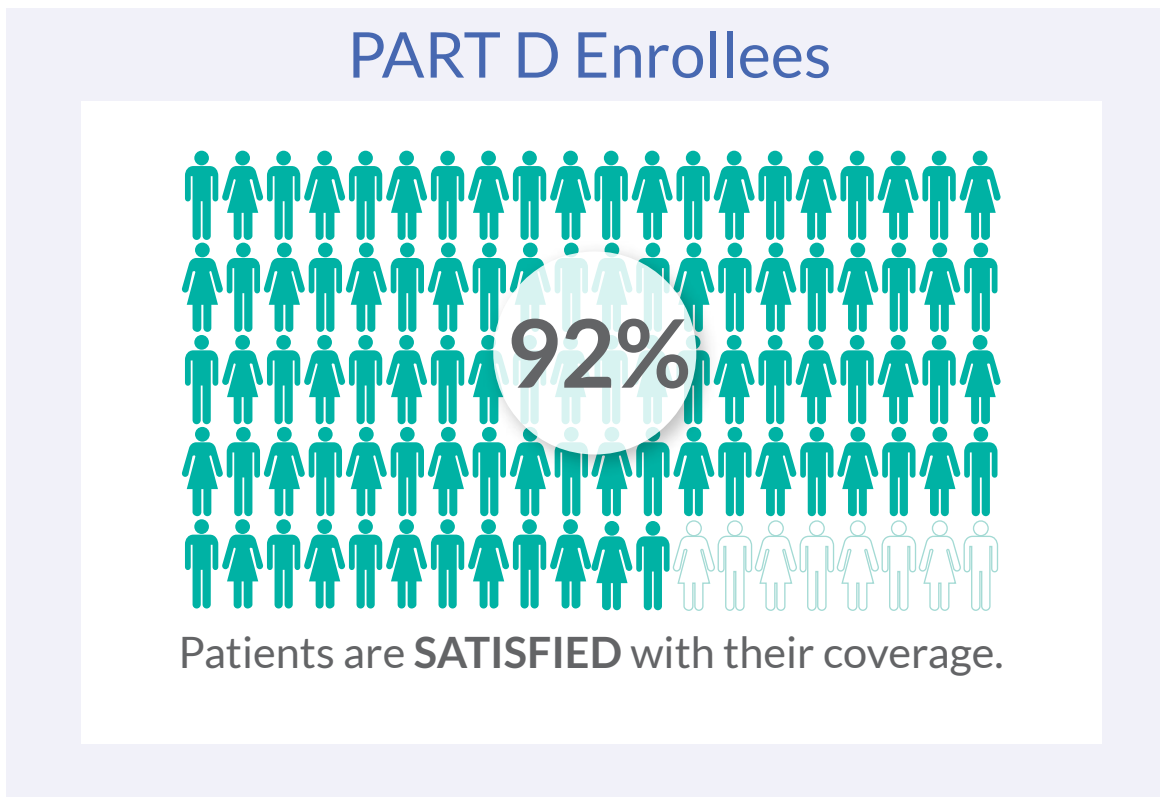
Across several studies¹³⁻¹⁷:



Sources: PhRMA analysis of data from The Lewin Group and CMS¹²; Joyce GF et al¹³; Duggan MG et al¹⁴; Lichtenberg F et al¹⁵; Yin W et al¹⁶; Ketcham JD et al¹⁷

Beneficiary Satisfaction With Part D

Several surveys show that more than 9 in 10 Part D enrollees are satisfied with their coverage and indicate that their coverage works well.^{18,19}

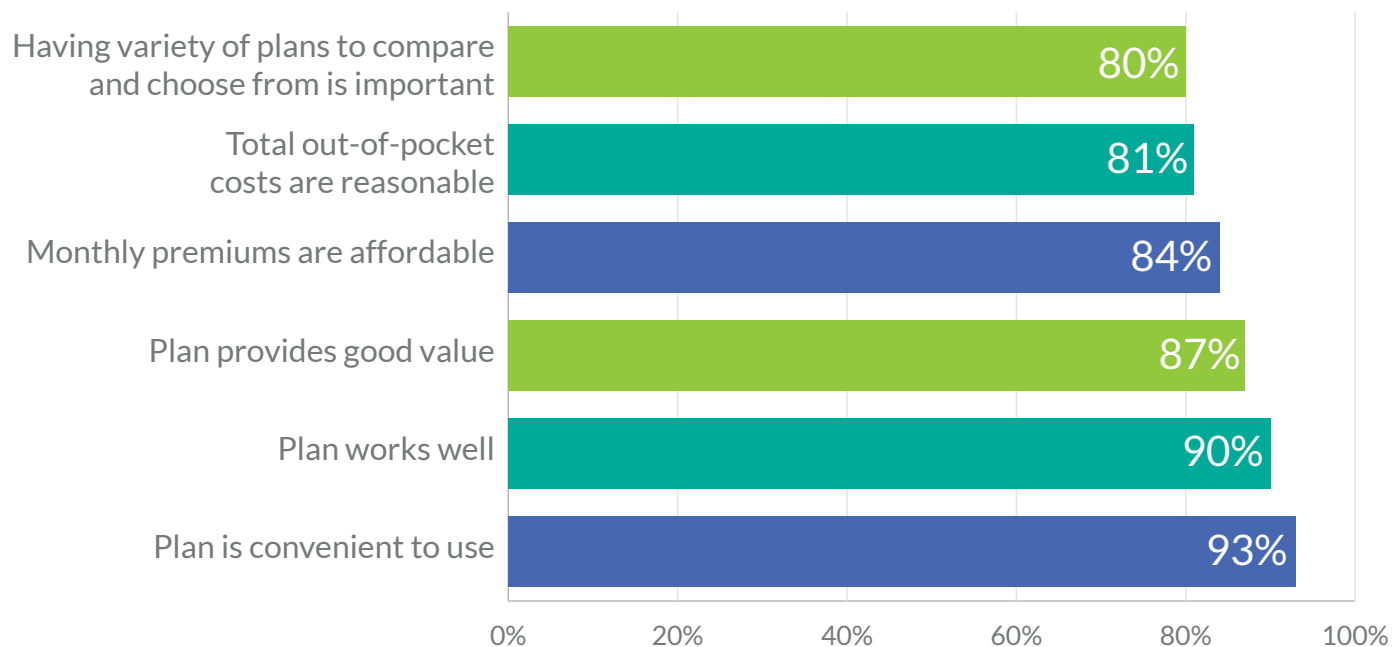


Source: MedPAC^{18,19}

Part D Enrollees' Satisfaction Is High Across Several Dimensions

Beneficiaries report that their plans are affordable and work well.

August 2020 Ratings²⁰

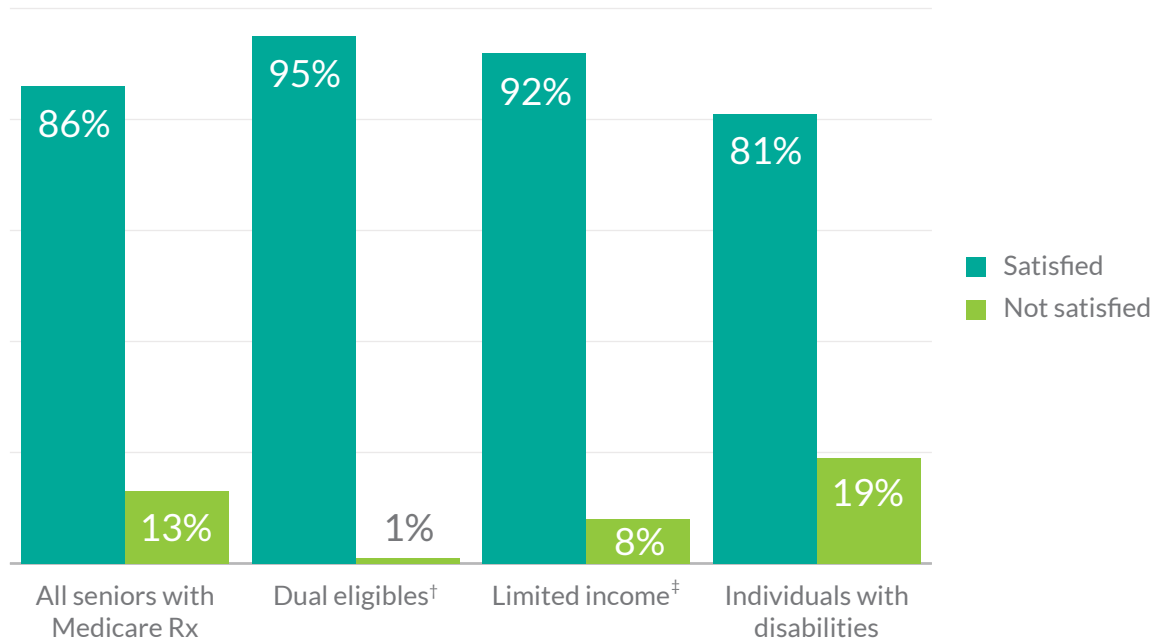


Source: Medicare Today²⁰

Satisfaction With Part D Is High Among the Most Vulnerable Beneficiaries

Dual eligibles and beneficiaries with limited incomes exhibit the highest satisfaction rate with their drug coverage.

Satisfaction of Selected Groups of Part D Enrollees, 2014*



*Excludes nonrespondents

[†]Dual eligibles are those enrolled in both Medicare and Medicaid. Dual eligibles not choosing a Part D plan are autoenrolled in a plan.

[‡]Limited income is defined as less than \$15,000.

Source: KRC Research²¹

Competition in Part D Promotes Access and Helps Control Costs

Mechanisms to PROMOTE ACCESS

- Plans compete for enrollees based on benefits, quality, and price.
- Beneficiaries have a choice among plans to best meet their needs.
- Enrollees can switch plans each year during open enrollment.
- Premium and cost-sharing subsidies assist low-income beneficiaries.
- There are no limits on the number of prescriptions.
- Defined standard benefit and formulary rules set minimum plan requirements.

Mechanisms to CONTROL COSTS

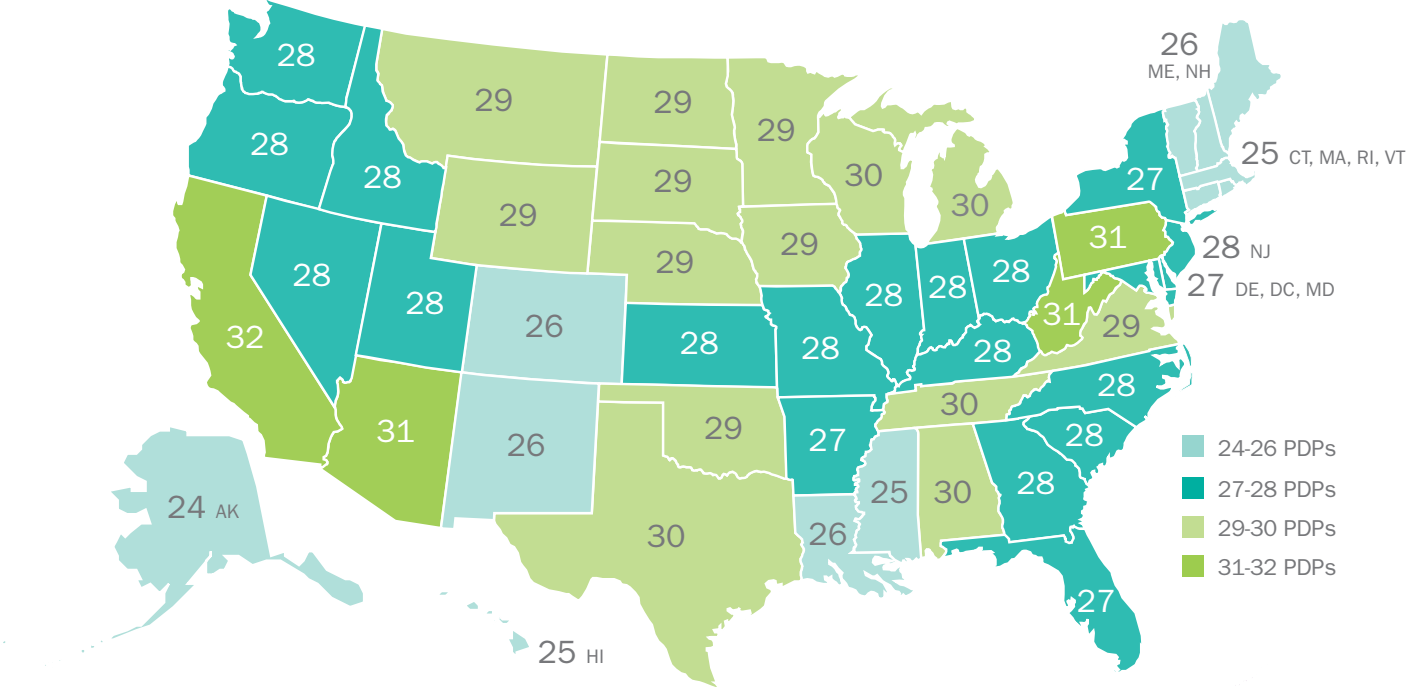
- Plans are paid based on competitive bids submitted each year.
- Plans and manufacturers negotiate discounts for covered medicines.
- Plans attract enrollment through lower premiums and quality of coverage.
- Plans use tiered formularies, tiered copays, and other utilization management tools.

Source: PhRMA analysis of data from MedPAC²²

Beneficiaries Have Broad Choice of Plans

Part D beneficiaries have 24 to 32 stand-alone prescription drug plan options in each state. More than 80% of beneficiaries indicate that having a variety of plans to choose from is important to them.²³

Number of Stand-Alone PDPs per State (2020)²⁴



Sources: Medicare Today²³; Avalere Health²⁴

Six Protected Classes Policy Ensures Access to Appropriate Medicines for Vulnerable Enrollees

Part D plans are required to cover “all or substantially all” medications within 6 classes and categories: anticonvulsants, antidepressants, antineoplastics, antipsychotics, antiretrovirals, and immunosuppressants.

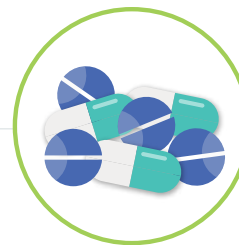
THE SIX PROTECTED CLASSES POLICY PROTECTS PATIENTS

- Ensures enrollees with serious and debilitating conditions, including HIV, epilepsy, organ transplants, cancer, and mental health conditions, have access to appropriate treatments, as many medicines are not interchangeable²⁵
- Ensures that Medicare enrollees reliant on these medicines would not be substantially discouraged from enrolling in Part D plans²⁶



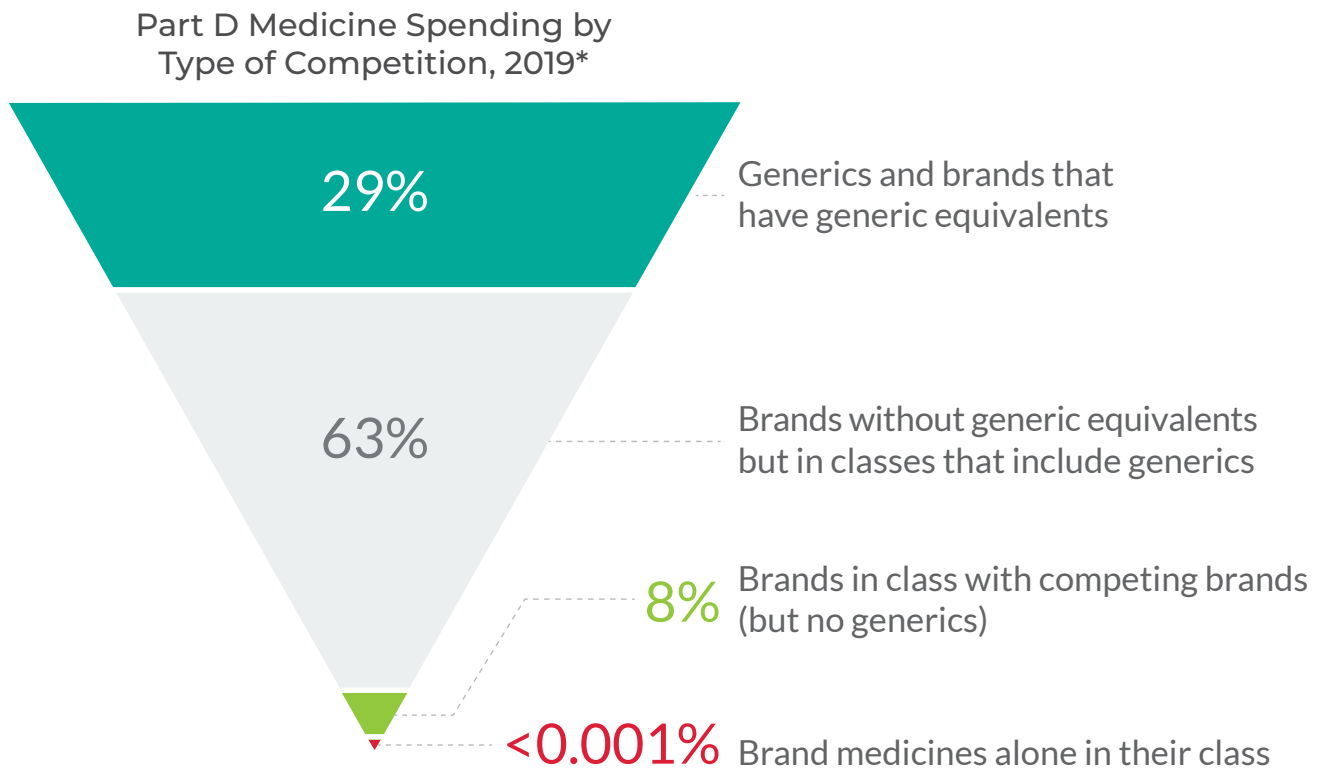
TOOLS ARE IN PLACE TO CONTROL UTILIZATION IN THE SIX PROTECTED CLASSES

- Plans use formulary tiers and cost sharing to spur competitive utilization of generics.
 - | The generic utilization rate in the six protected classes is as high as **84%**.²⁷
- There is widespread evidence that plans have ample flexibility to manage utilization among Part D beneficiaries.
 - | Plans apply **prior authorization** or **step therapy policies** for a majority of branded drugs (54%) in the protected classes.²⁸



Sources: CMS²⁵; SSA²⁶; The PEW Charitable Trusts²⁷; Partnership for Part D Access²⁸

Virtually All Brand Medicines Covered in Part D Have at Least 1 Competitor



*Class analysis is based on United States Pharmacopeia (USP) classification system. Part D plans are generally required to cover 2 medicines per USP class, and Centers for Medicare & Medicaid Services (CMS) uses USP to review Part D plan formularies to ensure plans meet formulary standards.

Source: Avalere Health²⁹

Enrollees Typically Do Not Benefit From Rebates and Discounts at the Pharmacy

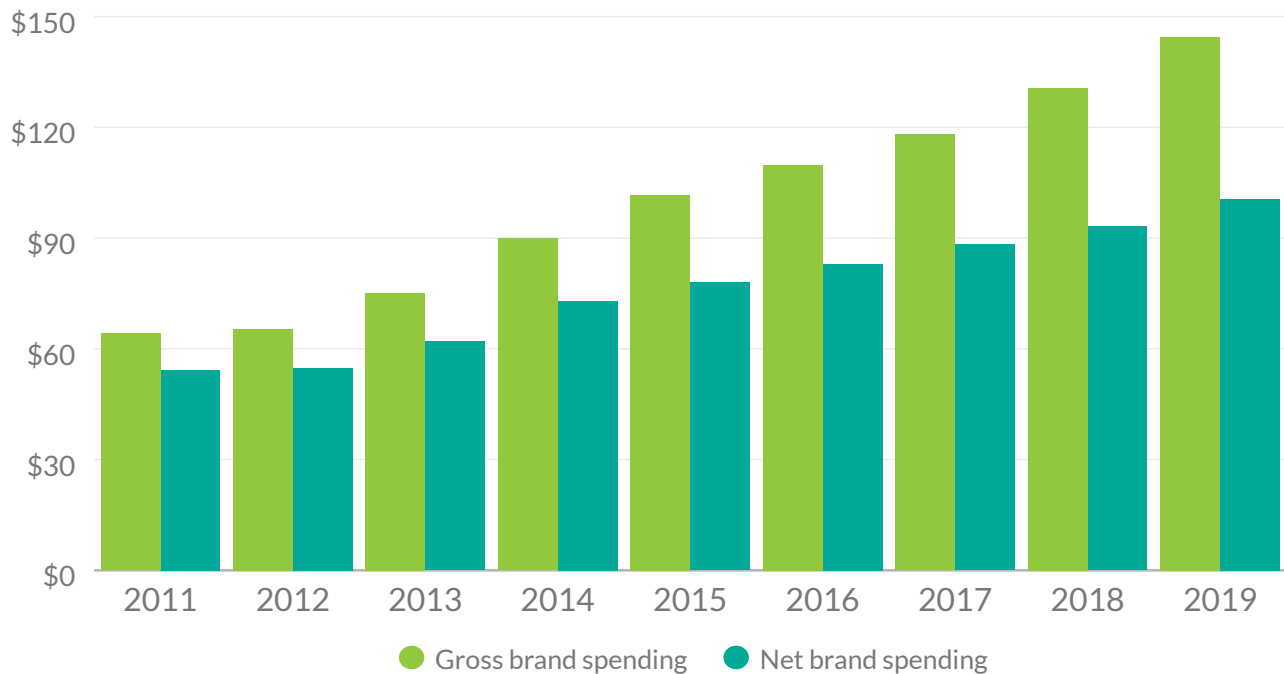
Large, powerful Part D purchasers negotiate sizable discounts and rebates with drug manufacturers on behalf of Medicare beneficiaries. For the top-200 brand medicines ranked by total Part D spending, rebates and discounts nearly doubled from 2014 to 2016.³⁰ According to the Medicare Trustees, Part D rebates have increased each year of the program.³¹



These savings are often used to help reduce **premiums**, not enrollees' **cost sharing**.

The Gap Between List and Net Price Growth for Medicines Is Driven by Rebates and Discounts

Estimated Gross and Net Spending in Medicare Part D in Billions, 2011-2019



Source: Avalere Health³²

Medicare Plan Finder Is a Tool for Beneficiaries to Help Make Part D Plan Selections Each Year

The Medicare Plan Finder, available on Medicare.gov, allows beneficiaries to enter their individual drug lists and find out which plans cover their medicines and their expected out-of-pocket costs for the year. Beneficiary choice of plans is a key feature of Part D's competitive structure.*

OPEN ENROLLMENT

The annual open enrollment period is from October 15 to December 7 each year.

STAR RATINGS

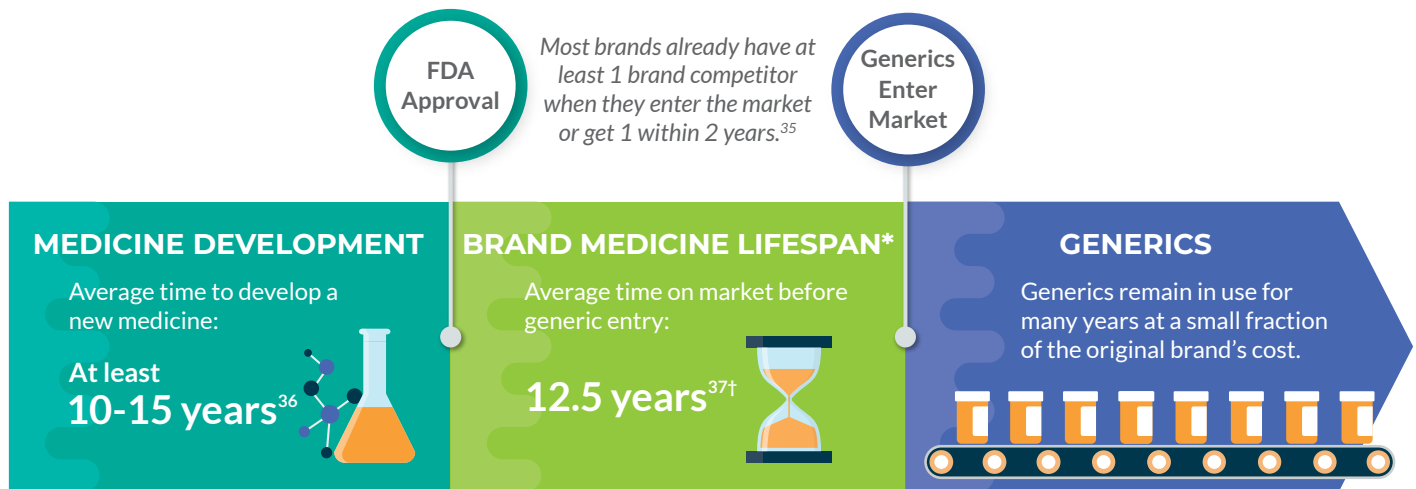
Plans are rated overall using a 5-star rating system, and Plan Finder provides information on how plans are performing on specific dimensions, such as customer service and patient safety.



*It is important to know what is and is not reflected in Plan Finder drug prices to ensure the information is not interpreted in a misleading way. For example, Plan Finder drug prices typically do not reflect the rebates and discounts negotiated between Part D plans and biopharmaceutical manufacturers.

Illustrative Pharmaceutical Lifecycle

New prescription medicines typically face competition after a relatively short time on the market, first from brand competitors and eventually from generics.



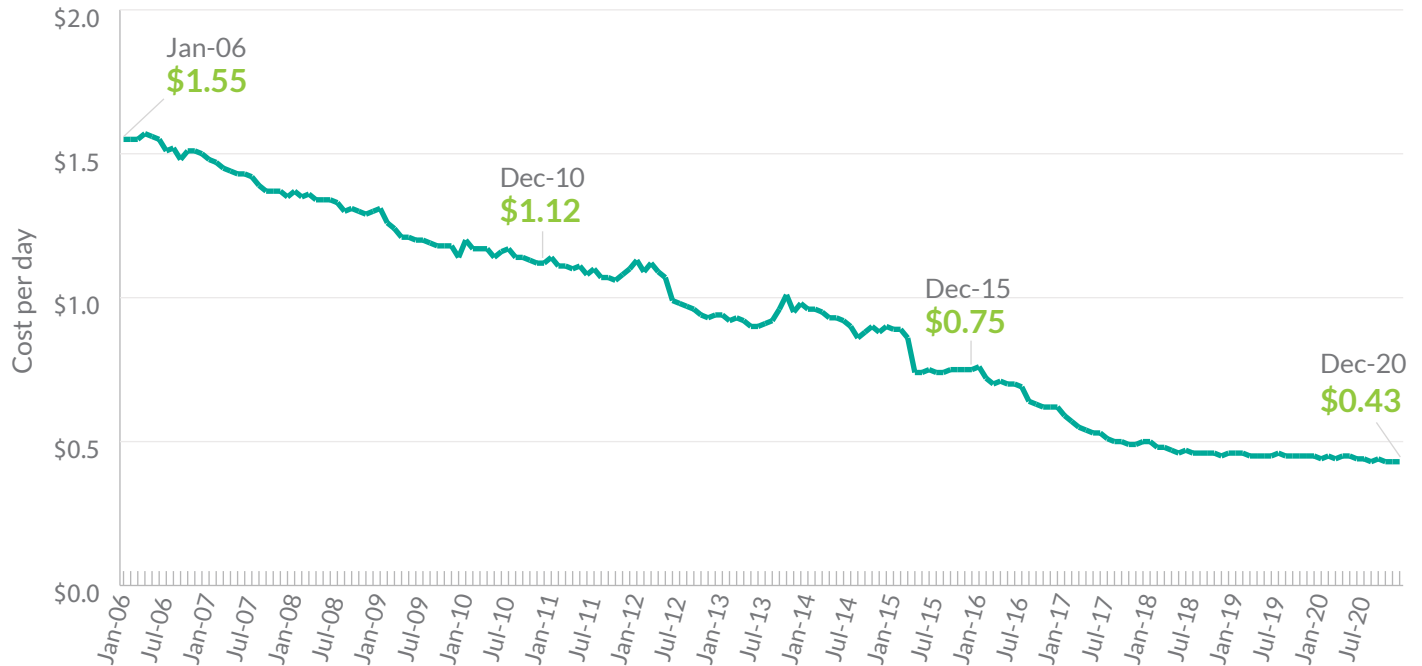
*Brand medicines limited to small molecule drugs. Brand medicine market share typically declines rapidly after generic entry.

†For brand medicines with more than \$250 million in annual sales in 2008 dollars, which account for 92% of sales of the brand medicines analyzed

Sources: PhRMA³⁴; DiMasi JA et al^{35,36}; Grabowski H et al³⁷

The US Prescription Drug Lifecycle Promotes Innovation and Affordability

Daily Cost of Top-10 Therapeutic Classes* Most Commonly Used by Medicare Part D Enrollees



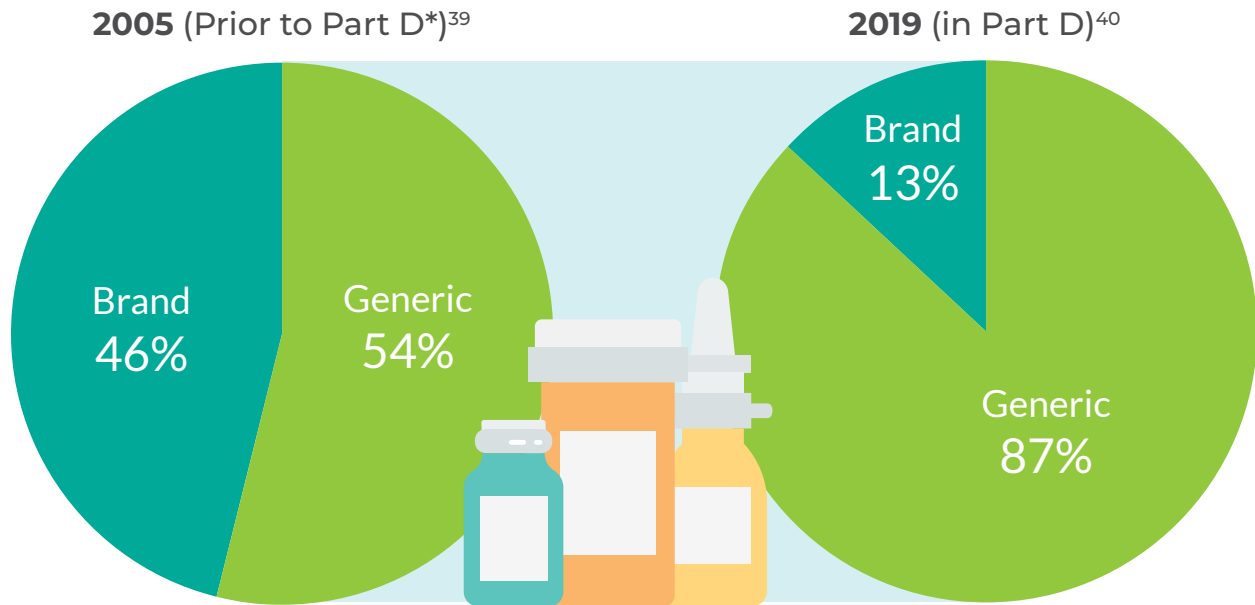
*The 10 therapeutic classes most commonly used by Part D enrollees in 2006 were: lipid regulators, angiotensin-converting-enzyme inhibitors, calcium channel blockers, beta blockers, proton pump inhibitors, thyroid hormone, angiotensin II, codeine and combination products, antidepressants, and seizure disorder medications.

Source: The IQVIA Institute³⁸

Nearly Nine out of Ten Part D Prescriptions Are Generic

Before Part D, seniors used generic drugs at low rates, with about 54% generic utilization in 2005. Since Part D's inception, generic utilization has steadily increased to 88% in 2018.

Share of Brand and Generic Prescriptions



*Part D went into effect on January 1, 2006.

Sources: PhRMA analysis of data from IMS Health Vector One³⁹; Medicare Trustees⁴⁰

Better Use of Medicines Yields Significant Health Gains by Avoiding the Need for Other Medical Services

Due to a growing body of evidence, in 2012 the Congressional Budget Office (CBO) began recognizing reductions in other medical expenditures associated with an increased use of medicines in Medicare.



Pharmaceuticals have the effect of improving or maintaining an individual's health . . . adhering to a drug regimen for a chronic condition such as diabetes or high blood pressure may prevent complications . . . taking the medication may also avert hospital admissions and thus **reduce the use of medical services** [emphasis added].”

CBO⁴¹



Since the CBO announcement, the evidence has continued to develop, broadening the potential for cost offsets in the health care system.

CHRONIC DISEASES

Medicare savings due to better use of medicines may be **3 to 6 times greater** than estimated by the CBO for seniors with common chronic conditions, including heart failure, diabetes, and hypertension.⁴²



MEDICAID

Increased use of medicines is associated with **reductions in Medicaid expenditures** from avoided use of inpatient and outpatient services.^{43,44}

Sources: CBO⁴¹; Roebuck MC⁴²; Roebuck MC et al^{43,44}

Seniors Experienced Beneficial Health Outcomes Following Part D Implementation

RESULTS OF GAINING PART D PRESCRIPTION DRUG COVERAGE



8.0% decrease
in hospital admissions⁴⁵



18.3% decrease
in non-emergency Emergency
Department visits⁴⁷



2.2% reduced
risk of mortality⁴⁶

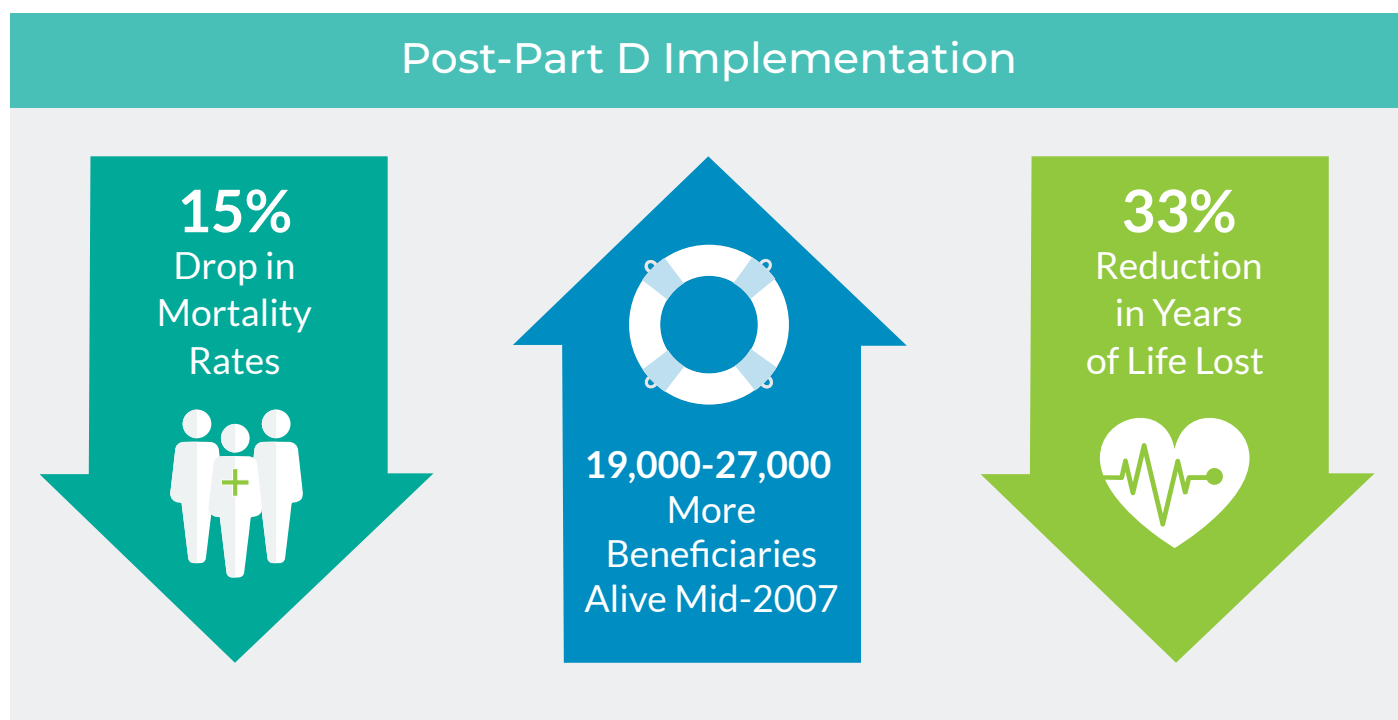


1.6% increase
in cognitive functioning,
resulting in a 1.1-year
delay in cognitive aging⁴⁸

Sources: Kaestner R et al⁴⁵; Huh J et al⁴⁶; Ayyagari P et al⁴⁷; Pak T et al⁴⁸

Cardiovascular-Related Mortality Dropped Significantly Following Part D Implementation

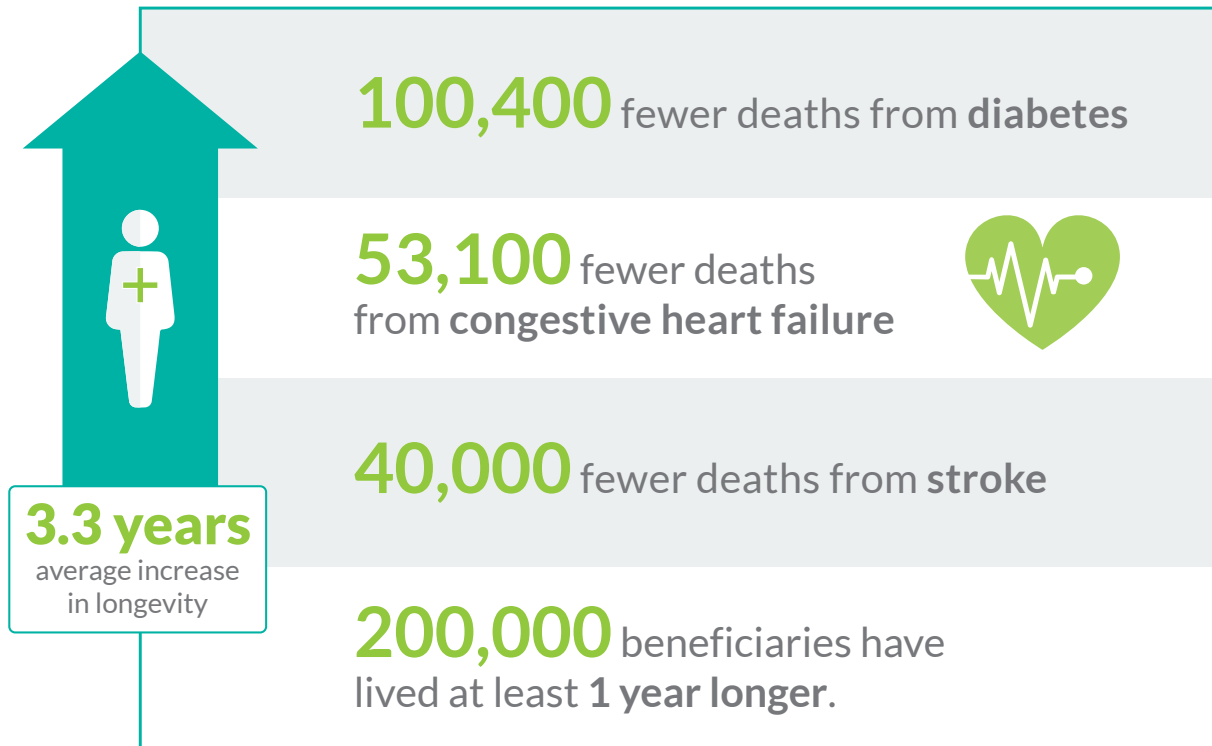
Mortality rates dropped, and years of life lost due to cardiovascular disease declined significantly following the implementation of Part D. The estimates suggest that as many as 27,000 more beneficiaries were alive mid-2007 as a result of Part D implementation.



Source: Dunn A et al⁴⁹

Part D Implementation Increased Longevity and Reduced Mortality

FROM 2006 TO 2014, PART D IMPLEMENTATION RESULTED IN:







Source: Semilla AP et al⁵⁰

Medicare Could Achieve Billions in Savings From Improved Use of Medicines

Between 20% and 40% of Medicare beneficiaries with common chronic diseases are not adherent to their medicines. Improved medication adherence can result in billions of dollars in cost savings from avoidable hospital stays.

Improved Outcomes With Better Adherence

	Cost Savings From Avoided Hospital Stays	Avoidable Hospital Inpatient Days	Annual Medicare Savings per Person
 DIABETES	\$4.5B	2.9M	\$5,170
 HYPERLIPIDEMIA	\$5.1B	5.2M	\$1,847
 HEART FAILURE	\$5.6B	4.2M	\$7,893
 HYPERTENSION	\$13.7B	7.3M	\$5,824

Source: Lloyd JT et al⁵¹

Medicare Part D Could Be Strengthened and Improved to Modernize the Benefit for Beneficiaries

Medicare Part D beneficiaries who are not eligible for Low-Income Subsidies (LIS) face multiple affordability challenges today due, in part, to the way the benefit is structured and how cost sharing is calculated.

The Part D benefit can be strengthened and improved for patients if changes address these affordability challenges:

High coinsurance
based on list prices

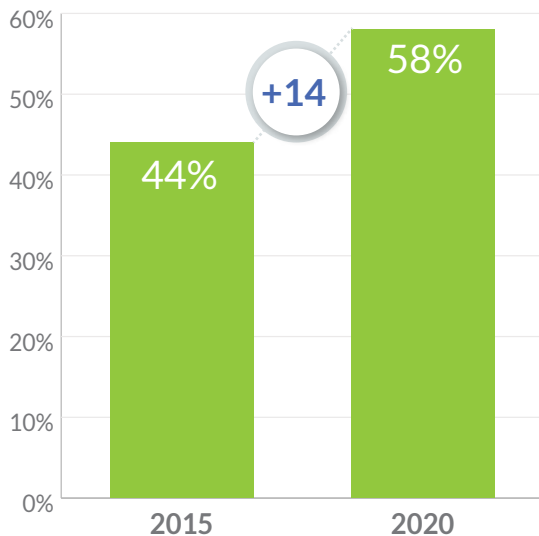
Lack of an **out-of-pocket cap**



Uneven distribution
of out-of-pocket
costs over the
course of the year

Part D Plans Have Shifted Costs to Seniors Through Increased Use of Coinsurance

Five-Year Jump in Average Percentage of Drugs on Coinsurance Tiers Among PDPs*



*PDP: Prescription Drug Plan

IN 2020:

Coinsurance is replacing copays.

>99% of PDPs have either 2 or 3 coinsurance tiers.

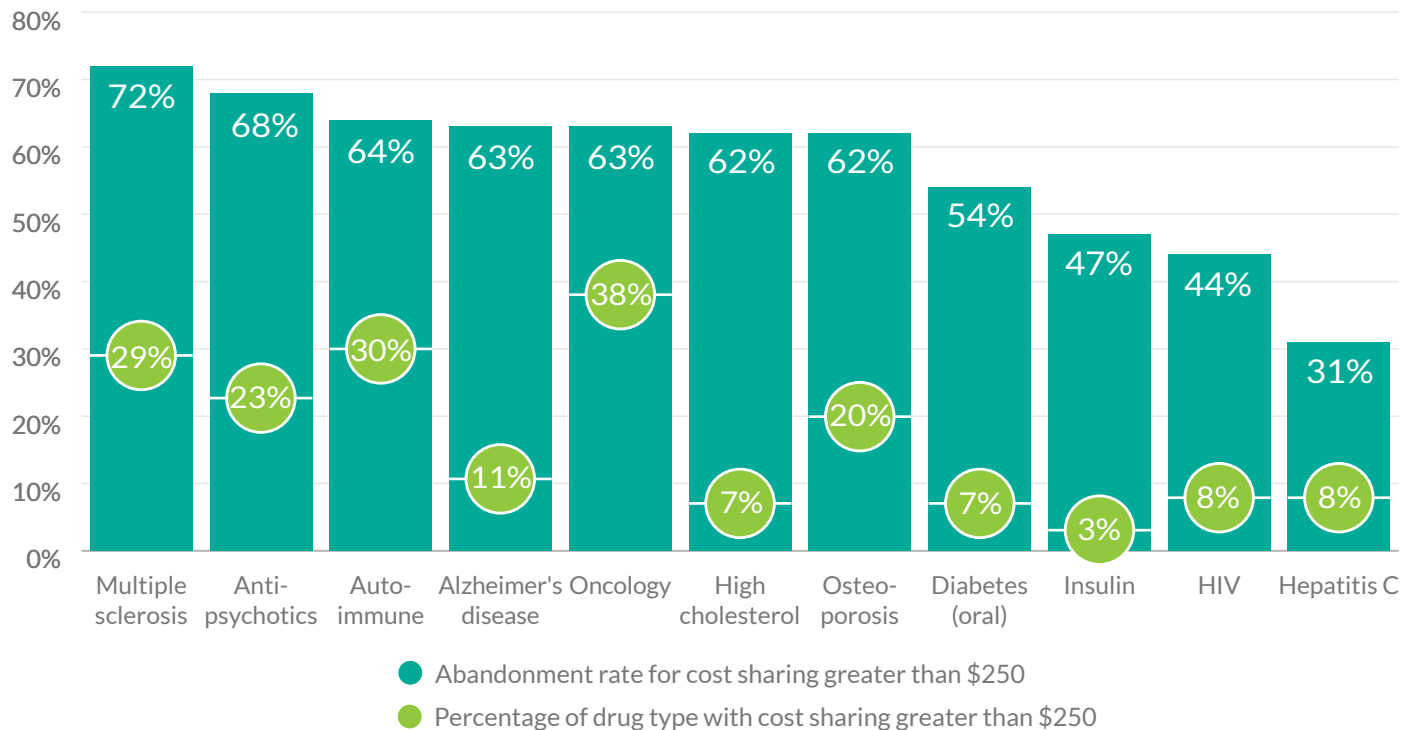
Increased use of complex, multi-tiered formularies:

Most PDPs (93%) use 5-tier formularies.

Among PDPs with 5-tier formularies,

enrollment-weighted average coinsurance ranges from 23% on the preferred brand tier to 39% on the non-preferred brand tier.

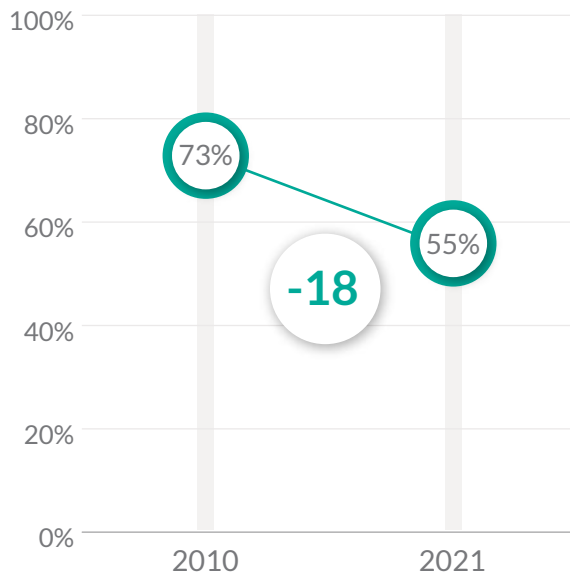
Abandonment Is Very High for Prescriptions With Cost Sharing Greater Than \$250 No Matter How Critical the Medicine



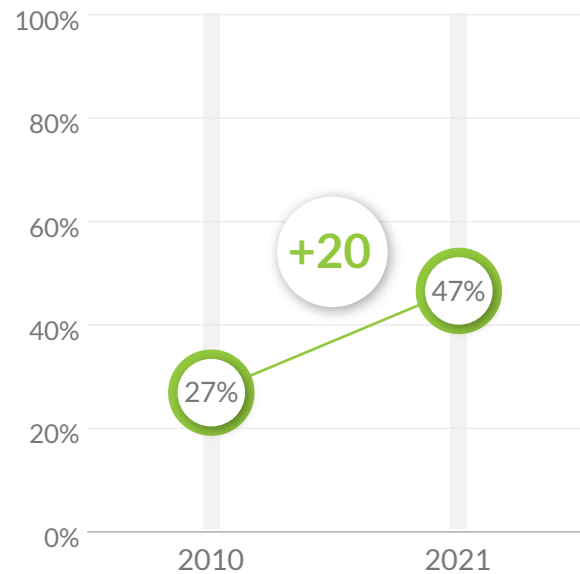
Source: Amundsen Consulting⁵³

Part D Plans Are Covering Fewer Medicines and Increasingly Restricting Access

Average Share of Medicines Covered on Part D Formularies



Average Number of Drugs Subject to Utilization Management

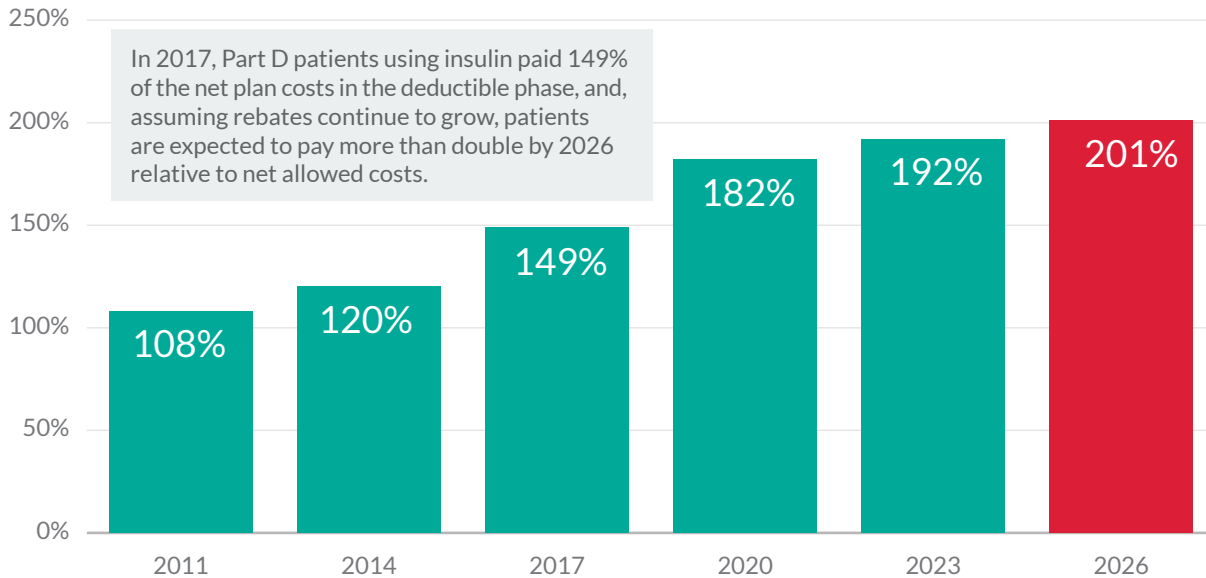


Source: Marsh T et al⁵⁴

Beneficiaries Often Pay Cost Sharing Based on a Medicine's Full Price, Even When Their Part D Plan Receives a Discount

Most plan sponsors don't share rebates with patients at the pharmacy counter. Instead, patients pay cost sharing based on the medicine's full list price, sometimes exceeding the Part D plan net price.

Cost Sharing for Non-LIS Insulin Users Over Time in the Deductible Phase



Across all phases of the benefit, out-of-pocket costs for patients using insulin have been increasing as a share of net plan costs, despite the increased generosity of the Part D benefit through filling in the coverage gap.

Source: Milliman⁵⁵

How Could Medicare Part D Work Better for Enrollees?

SHARE NEGOTIATED REBATES AT THE POINT OF SALE

- Share rebate savings directly with patients at the pharmacy counter



MODIFY THE BENEFIT DESIGN

- Reduce cost sharing and add an annual out-of-pocket limit



IMPROVE AFFORDABILITY

- Smoothing uneven distribution of out-of-pocket costs



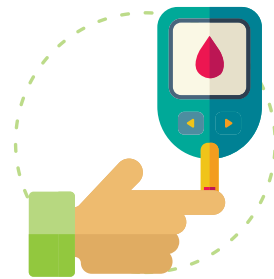
Lowering Cost Sharing for Seniors at the Pharmacy Counter Can Generate Medicare Savings

Sharing a portion of negotiated manufacturer rebates directly with patients could improve medicine adherence and result in savings for seniors and Medicare Part D.

BENEFITS OF SHARING NEGOTIATED REBATES:



Lower beneficiary out-of-pocket spending by an average of **\$350 per year**



Save Medicare nearly **\$1,000 per year** for every senior taking diabetes medicine

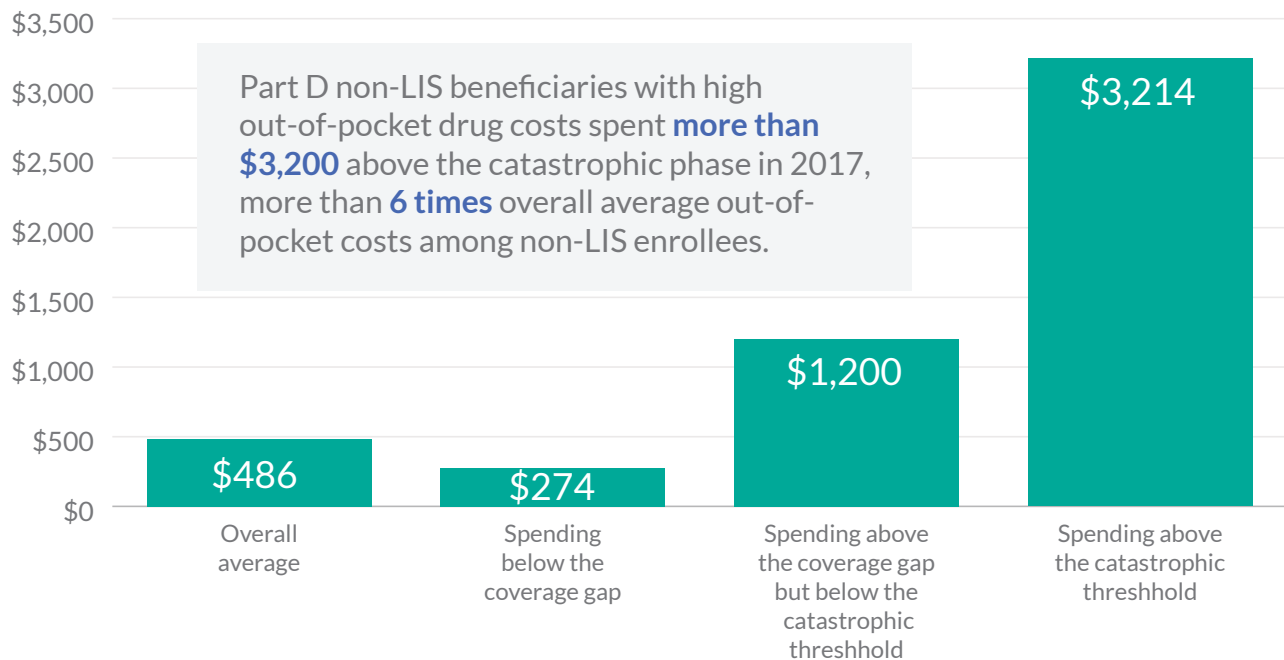


Reduce total health care spending by approximately **\$20B over 10 years**

Source: IHS Markit⁵⁶

An Out-of-Pocket Limit Would Provide True Catastrophic Coverage for Enrollees With High Out-of-Pocket Spending and Align Medicare Part D With Other Markets

Average Out-of-Pocket Spending by Medicare Part D Enrollees Without Low-Income Subsidies in 2017



Source: KFF⁵⁷

A Smoothing Policy Would Help Part D Beneficiaries Who Have High Out-of-Pocket Costs Early in the Year

A smoothing policy would allow beneficiaries to spread their out-of-pocket costs over a longer period (eg, over multiple months), rather than pay these costs up front.

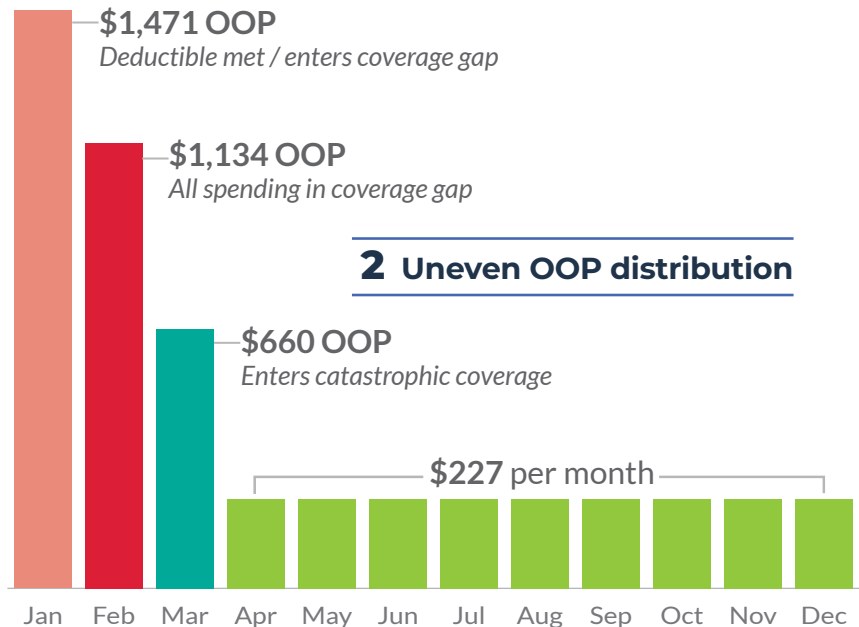
Hypothetical Patient Facing High Out-of-Pocket (OOP) Costs at the Beginning of the Year



- 71 years old
- Lives in Memphis, TN
- Part D enrollee
- Takes 2 medicines:
 1. Brand TNF inhibitor for rheumatoid arthritis
 2. Generic beta blocker

Total annual
OOP burden:
\$5,306

1 High cost sharing at the pharmacy

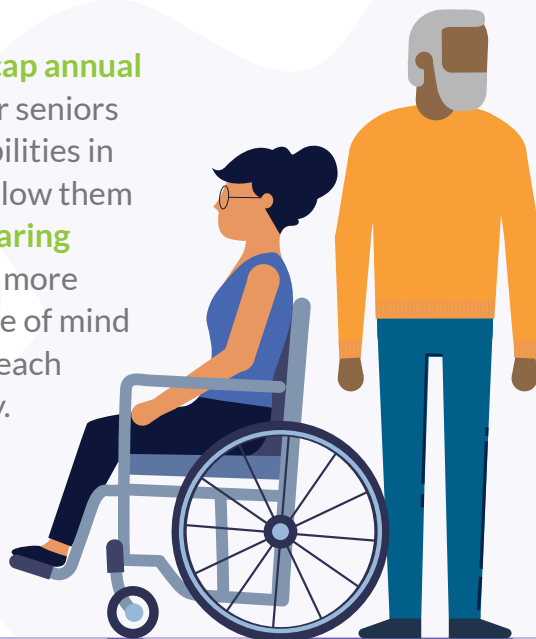


A smoothing policy would particularly benefit beneficiaries who incur high OOP in a short period.

Measured Improvements Could Strengthen the Medicare Part D Program for the Future

The Medicare Part D program works well for seniors and those with disabilities, but there are ways to make it work even better for those who are facing increasingly higher out-of-pocket costs at the pharmacy.

Policymakers need to **cap annual out-of-pocket costs** for seniors and patients with disabilities in Medicare Part D and allow them to **spread their cost sharing across the year** to give more predictability and peace of mind about what they'll pay each month at the pharmacy.



High and unpredictable cost sharing is a problem for seniors and patients with disabilities, who shoulder a much higher share of the cost burden and who need targeted reforms that will improve affordability.

Plans should also **share the savings from negotiated rebates** directly with Part D beneficiaries at the pharmacy counter.

These reforms could lower out-of-pocket costs for millions of people, generate savings for the federal government, and strengthen the successful Part D program.

Notes and Sources

- 1 McDonald R. Managing the intersection of medical and pharmacy benefits. *J Manag Care Pharm*. 2008;14(suppl 4):S7-S11. Accessed December 2014. <https://www.jmcp.org/doi/pdf/10.18553/jmcp.2008.14.S4-A.7>
- 2 Medicare Payment Advisory Commission (MedPAC). Medicare prescription drug program (Part D): Status report. In: Report to the Congress: Medicare Payment Policy. Published March 2021. Accessed March 2021. https://www.medpac.gov/wp-content/uploads/import_data/scrape_files/docs/default-source/reports/mar21_medpac_report_to_the_congress_sec.pdf
- 3 MedPAC. Report to the Congress: Medicare Payment Policy. Published March 2021. Accessed March 2021. https://www.medpac.gov/wp-content/uploads/import_data/scrape_files/docs/default-source/reports/mar21_medpac_report_to_the_congress_sec.pdf
- 4 Centers for Medicare & Medicaid Services (CMS). Nearly 12 million people with Medicare have saved over \$26 billion on prescription drugs since 2010. Published January 2017. Accessed March 2020. <https://www.cms.gov/newsroom/press-releases/nearly-12-million-people-medicare-have-saved-over-26-billion-prescription-drugs-2010>
- 5 Cubanski J, Neuman T; Kaiser Family Foundation (KFF). How will the Medicare Part D benefit change under current law and leading proposals? Published October 2019. Accessed June 2020. <https://www.kff.org/medicare/issue-brief/how-will-the-medicare-part-d-benefit-change-under-current-law-and-leading-proposals>
- 6 Pharmaceutical Research and Manufacturers of America (PhRMA) calculation of Medicare benefit payment projections based on Congressional Budget Office (CBO) data. March 2020 Medicare baseline spreadsheet. Published March 2020. Accessed March 2020. <https://www.cbo.gov/system/files/2020-03/51302-2020-03-medicare.pdf>
- 7 CBO. Prices for and spending on specialty drugs in Medicare Part D and Medicaid. Published March 2019. Accessed January 2021. https://www.cbo.gov/system/files/2019-03/54964-Specialty_Drugs.pdf
- 8 CMS. Actual average premium figures taken from annual CMS press releases. <https://www.cms.gov/newsroom>
- 9 Medicare Trustees. 2004 Trustees report. Page 164. Published March 2004. Accessed September 2021. <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/ReportsTrustFunds/downloads/tr2004.pdf>
- 10 Medicare Trustees. 2005 Trustees report. Page 156. Published March 2005. Accessed September 2021. <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/ReportsTrustFunds/downloads/tr2005.pdf>
- 11 Medicare Trustees. 2006-2012 Trustees reports. Table V.C2. Accessed September 2021. <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/ReportsTrustFunds/Trustees-Reports-Items/2002-2011>
- 12 The Lewin Group. Beneficiary choices in Medicare Part D and plan features in 2006. Published September 2006. Drug coverage data obtained from the following sources: CMS; Current population survey, Kaiser State Health Fact Sheets and National Conference of State Legislatures; PhRMA analysis of Medicare Advantage, CMS, Cost, PACE, Demo, and Prescription Drug Plan monthly contract summary report, data as of January 2011. Accessed October 2021. <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/MCRAdvPartDENrolData/Monthly-Contract-and-Enrollment-Summary-Report-Items/CMS1243099.html>
- 13 Joyce GF, Goldman DP, Vogt WB et al. Medicare Part D after 2 years. *Am J Manag Care*. 2009;15(8):536-544. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3767434>
- 14 Duggan MG, Scott Morton F. The effect of Medicare Part D on pharmaceutical prices and utilization. *Am Econ Rev*. 2010;100(1):590-607. doi:10.1257/aer.100.1.590
- 15 Lichtenberg F, Sun SX. The impact of Medicare Part D on prescription drug use by the elderly. *Health Aff*. 2007;26(6):1735-1744. <https://doi.org/10.1377/hlthaff.26.6.1735>
- 16 Yin W, Basu A, Zhang JX, et al. The effect of the Medicare Part D prescription benefit on drug utilization and expenditures. *Ann Intern Med*. 2008;148(3):1-14. <https://doi.org/10.7326/0003-4819-148-3-200802050-00200>

- 17 Ketcham JD, Simon K. Medicare Part D's effects on elderly drug costs and utilization. *Am J Manag Care*. 2008;14(11 Suppl):SP14-SP22.
- 18 MedPAC. Report to the Congress: Medicare Payment Policy. Published March 2019. Accessed March 2020. https://www.medpac.gov/wp-content/uploads/import_data/scrape_files/docs/default-source/reports/jun19_medpac_reporttocongress_sec.pdf
- 19 MedPAC. Report to the Congress: Medicare payment policy. Published March 2019. Accessed March 2020. https://www.medpac.gov/wp-content/uploads/import_data/scrape_files/docs/default-source/reports/jun19_medpac_reporttocongress_sec.pdf
- 20 Medicare Today. Nationwide survey: nearly nine of ten seniors are satisfied with Medicare Part D prescription drug coverage. Published August 2019. Accessed March 2020. <http://medicaretoday.org/2019/08/nationwide-survey-nearly-nine-of-ten-seniors-are-satisfied-with-their-medicare-part-d-prescription-drug-coverage>
- 21 KRC Research. Nearly 9 in 10 seniors are satisfied with Medicare Part D. Published July 2014. Accessed October 2021. <http://medicaretoday.org/wp-content/uploads/2016/07/2014-July-SeniorSatisfactionSurvey.pdf>
- 22 PhRMA analysis based on MedPAC. Data book: health care spending and the Medicare program. Published July 2021. Accessed November 2021. https://www.medpac.gov/wp-content/uploads/import_data/scrape_files/docs/default-source/data-book/july2021_medpac_databook_sec.pdf
- 23 Medicare Today. Senior satisfaction survey. Published June 2020. Accessed April 2021. <http://medicaretoday.org/resources/senior-satisfaction-survey>
- 24 Avalere Health analysis for PhRMA. The number of stand-alone PDPs per state 2020.
- 25 CMS. Part D drugs and formulary requirements, chapter 6, section 30.2.5. In: Medicare Prescription Drug Benefit Manual. Published January 2016. Accessed October 2021. <https://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovContra/Downloads/Part-D-Benefits-Manual-Chapter-6.pdf>
- 26 Social Security Act (SSA) § 1860D-11(e)(2)(D)(i).
- 27 The PEW Charitable Trusts. Policy proposal: revising Medicare's Protected Classes Policy. Published March 2018. Accessed October 2021. https://www.pewtrusts.org/-/media/assets/2018/03/dsri_policy_proposal_revising_medicare_protected_classes_policy.pdf
- 28 Partnership for Part D Access. Medicare Part D's Six Protected Classes Policy: a balanced approach to provide patients access to medications while allowing powerful tools to control costs. Published November 2018. Accessed January 2021. http://www.partdpartnership.org/uploads/8/4/2/1/8421729/partnership_for_part_d_report_2018.pdf
- 29 Froberg E, Young J, Donthi S, et al; Avalere Health. Majority of Part D spending is on brand drugs in classes with generics. Published March 31, 2021. Accessed April 2021. <https://avalere.com/insights/majority-of-part-d-spending-is-on-brand-drugs-in-classes-with-generics>
- 30 Government Accountability Office (GAO). Overview of approaches to control prescription drug spending in federal programs: testimony before the Subcommittee on Federal Workforce, Postal Service, and the District of Columbia, Committee on Oversight and Government Reform. House of Representatives; June 24, 2009. Statement of John E. Dicken, Director, Health Care, Government Accountability Office. <https://www.gao.gov/assets/gao-09-819t.pdf>
- 31 Medicare Trustees. The 2014 annual report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds. July 2014:150(footnote 63). <https://www.cms.gov/research-statistics-data-and-systems/statistics-trends-and-reports/reportstrustfunds/downloads/tr2014.pdf>
- 32 Avalere Health analysis for PhRMA. 2015 and 2019 Part D drug dashboards, 2020 Medicare Trustees report, and 2018 Part D proposed rule. May 2021.
- 33 Medicare.gov. Accessed March 2020. <https://www.medicare.gov/plan-compare/#/?lang=en>
- 34 PhRMA. Drug discovery and development: understanding the R&D process. Published February 2007. Accessed October 2021. https://cpb-us-e1.wpmucdn.com/sites.northwestern.edu/dist/8/665/files/2015/10/Drug_RD_Brochure-12e7vs6.pdf
- 35 DiMasi JA, Chakravarthy R. Competitive development in pharmacologic classes: market entry and the timing of development. *Clin Pharmacol Ther*. 2016;100(6):754-760. <https://doi.org/10.1002/cpt.502>
- 36 DiMasi JA, Grabowski HG, Hansen RW. Innovation in the pharmaceutical industry: new estimates of R&D costs. *J Health Econ*. 2016;47:20-33. <https://doi.org/10.1016/j.jhealeco.2016.01.012>

- 37 Grabowski H, Long G, Mortimer R, et al. Updated trends in US brand-name and generic drug competition. *J Med Econ*. 2016;19(9):836-844. <https://doi.org/10.1080/13696998.2016.1176578>
- 38 The IQVIA Institute. IQVIA National Sales Perspectives, National Prescription Audit. Published December 2020. <https://www.iqvia.com/locations/united-states/solutions/life-sciences/information-solutions/essential-information/prescription-information>
- 39 PhRMA analysis based on IMS Health Vector One®. National audit data. Data extracted September 21, 2012.
- 40 Medicare Trustees. The 2020 annual report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds. April 2020:143 (footnote 63). <https://www.cms.gov/files/document/2020-medicare-trustees-report.pdf>
- 41 CBO. Offsetting effects of prescription drug use on Medicare's spending for medical services. Published November 2012. Accessed May 2017. <https://www.cbo.gov/publication/43741>
- 42 Roebuck MC. Medical cost offsets from prescription drug utilization among Medicare beneficiaries [commentary]. *J Manag Care Spec Pharm*. 2014;20(10):994-995. <https://doi.org/10.18553/jmcp.2014.20.10.994>
- 43 Roebuck MC, Dougherty JS, Kaestner R, et al. Increased use of prescription drugs reduces medical costs in Medicaid populations. *Health Aff*. 2015;34(9):1586-1593. <https://doi.org/10.1377/hlthaff.2015.0335>
- 44 Roebuck MC, Kaestner RJ, Dougherty JS. Impact of medication adherence on health services utilization in Medicaid. *Med Care*. 2018;56(3):266-273. <https://doi.org/10.1097/MLR.0000000000000870>
- 45 Kaestner R, Long C, Alexander C. Effects of prescription drug insurance on hospitalization and mortality: evidence from Medicare Part D. *Nat Bur Econ Res*. Published February 2014. Accessed May 2015. <https://www.nber.org/papers/w19948>
- 46 Huh J, Reif J. Did Medicare Part D reduce mortality? *J Health Econ*. 2017;53:17-37. <https://doi.org/10.1016/j.jhealeco.2017.01.005>
- 47 Ayyagari, P, Shane DM, Wehby GL. The impact of Medicare Part D on emergency department visits. *Health Econ*. 2017;26(4):536-544. <https://doi.org/10.1002/heec.3326>
- 48 Pak T, Kim G. The impact of Medicare Part D on cognitive functioning at older ages. *Soc Sci Med*. 2017;193:118-126. <https://doi.org/10.1016/j.socscimed.2017.09.037>
- 49 Dunn A, Shapiro AH. Does Medicare Part D save lives? Federal Reserve Bank of San Francisco and the Bureau of Economic Analysis. Working Paper 2015-04. Published February 2015. Accessed May 2015. <https://www.frbsf.org/economic-research/files/wp2015-04.pdf>
- 50 Semilla AP, Chen F, Dall TM. Reductions in mortality among Medicare beneficiaries following the implementation of Medicare Part D. *Am J Manag Care*. 2015;21(9 Suppl):s165-s171. <https://pubmed.ncbi.nlm.nih.gov/26295437>
- 51 Lloyd JT, Maresh S, Powers CA, et al. How much does medication nonadherence cost the Medicare fee-for-service program? *Med Care*. 2019;57(3):218-224. <https://doi.org/10.1097/MLR.0000000000001067>
- 52 Avalere Health. Analysis using PlanScape®, a proprietary database of plan formularies and benefit designs. Accessed November 2021. <https://avalere.com/products/planscape>
- 53 Amundsen Consulting. Medicare Part D abandonment: deep dive into branded product abandonment. May 2020.
- 54 Marsh T, Brooks A, Li D, et al. The big pinch: new findings on changing insurance coverage of prescription drugs. GoodRx. Published March 2020. Updated October 2021. Accessed November 2021. https://assets.ctfassets.net/4f3rgqwzdznj/1RQzvzjRErFvrH1qqcQGMH/24cf74b6df58125caebc668a77add74b/the_big_pinch_october_2021.pdf
- 55 Holcomb KM, Klein M; Milliman. Medicare Part D diabetic member cost sharing: impact on non-low income members. February 2019. <https://www.milliman.com/en/insight/Medicare-Part-D-diabetic-member-cost-sharing-Impact-on-non-low-income-members>
- 56 Su W, Dall T; IHS Markit. Passing a portion of negotiated rebates through to seniors with diabetes can improve adherence and generate savings in Medicare. Published May 2018. Accessed May 2019. <https://www.pharmaceutical-technology.com/pricing-and-market-access/budget-impact-of-sharing-rebates-html>
- 57 Cubanski J, Neuman T, Damico A; KFF. How many Medicare Part D enrollees had high out-of-pocket drug costs in 2017? Published June 2019. Accessed October 2021. <https://www.kff.org/medicare/issue-brief/how-many-medicare-part-d-enrollees-had-high-out-of-pocket-drug-costs-in-2017>

