How big is the government subsidy for Medicare Part D?

Authors: Alicia Haydock Munnell, Gal Wettstein, Wenliang Hou

Chestnut Hill, Mass.: Center for Retirement Research at Boston College, December 2019

CENTER for RETIREMENT RESEARCH at BOSTON COLLEGE

December 2019, Number 19-20

HOW BIG IS THE GOVERNMENT SUBSIDY FOR MEDICARE PART D?

By Alicia H. Munnell, Gal Wettstein, and Wenliang Hou*

Introduction

The Medicare Part D program, launched in 2006, extended outpatient prescription drug insurance to almost all Americans over age 65. This expansion of Medicare was a response to the rapid growth of drug costs and the resulting strain on patients' budgets. Participants in Part D generally pay monthly premiums, face an annual deductible, and make copayments on drug purchases above the deductible. These payments typically are less than the value of the drugs received. Estimating the precise size of this subsidy for any individual depends on many factors. A simpler task is estimating the size of the average subsidy that retirees can expect to receive. This *brief* calculates the average lifetime Part D subsidy for a typical 65-year-old in 2019.

Clarifying the scale of the Part D subsidy is important for individuals, researchers, and policymakers. For individuals, the size of the subsidy that the typical beneficiary can expect to receive from Part D may impact household planning for prescription drug costs in old age. For researchers, understanding the size of the subsidy will provide a basis for assessing the large reported effects of Part D on outcomes as diverse as mortality, mental health, and retirement age. For policymakers, knowing the subsidy amount will help them evaluate reform proposals (e.g., both the Affordable Care Act and the Bipartisan Budget Act of 2018 increased the generosity of the standard Part D benefit design, while current reform proposals would address rising drug costs).

The discussion proceeds as follows. The first section describes how Part D works and defines the nature of the subsidy. The second section reports on what is known about the value of Part D from existing literature. The third section presents the methods used in this analysis to calculate the lifetime amount of the Part D subsidy. The fourth section presents estimates of the subsidy under low, intermediate, and high assumptions and discusses some implications. The final section concludes that Part D represents a substantial subsidy in dollar terms for an individual entering retirement.

* Alicia H. Munnell is director of the Center for Retirement Research at Boston College (CRR) and the Peter F. Drucker Professor of Management Sciences at Boston College's Carroll School of Management. Gal Wettstein is a research economist at the CRR. Wenliang Hou is a senior research advisor at the CRR.

Medicare Part D

Medicare Part D subsidizes the prescription drug coverage of enrollees by contributing to their premiums and covering some of the program's cost-sharing expenses. The three main components of this support are a direct subsidy to premiums; the Low-Income Subsidy (LIS); and coverage of catastrophic drug spending.[1]

The direct premium subsidy pays drug insurance plans a lump sum per enrollee (adjusted for certain risk factors) that covers about three-quarters of premiums. This subsidy reduces the price of Part D insurance plans.

The LIS goes to enrollees with incomes below 150 percent of the federal poverty line (about $19,000 per individual and $26,000 for married couples in 2019) and assets of less than about $14,000 and $29,000 for individuals and married couples, respectively. These subsidies allow low-income enrollees to obtain Part D plans for a much reduced monthly premium (and often for free) and reduce their cost-sharing.

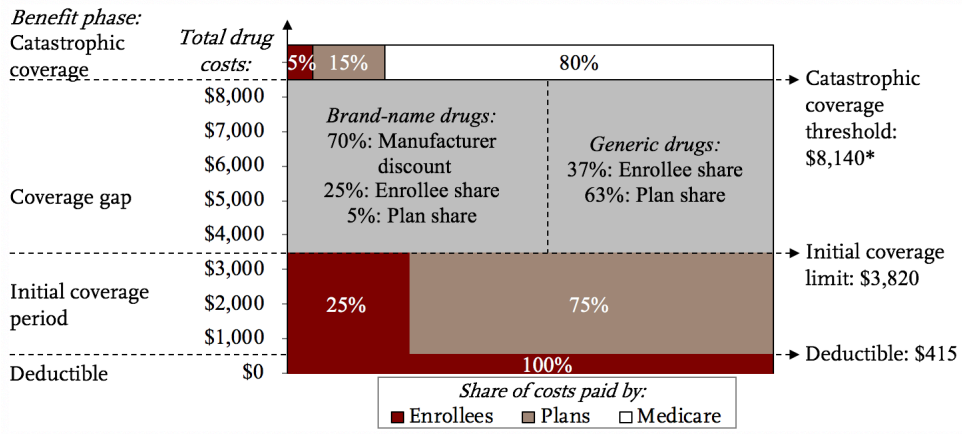
The catastrophic coverage subsidy is tied to the cost-sharing structure of Part D; the benchmark benefit design is illustrated in Figure 1. Under this structure, when drug spending for an individual exceeds a certain threshold within a year, the Medicare program will cover 80 percent of the costs over that threshold. In 2019, the threshold for catastrophic coverage was $8,140. The remaining spending within the catastrophic range is covered by 5 percent from the individual and 15 percent from the insurance plan. As a result, insurers face a relatively small risk of having to spend huge sums for the small minority of very expensive enrollees, which filters through to all beneficiaries in the form of lower monthly premiums.

This benchmark benefit design is not the only one available. Insurers can offer different benefit structures as long as they are expected to be at least as generous as the benchmark. As a result, different Part D plans, with varying premiums and benefit structures, are available in different regions of the country, and individuals can typically choose the plan they like best from a menu of options. Furthermore, the subsidy amount for specific individuals will depend heavily on their drug use over time, and the trajectory of their income and assets. To sidestep these complex questions regarding specific individuals, this *brief* will consider the average expected dollar amount of the Part D subsidy. First, however, it is helpful to review other approaches that have been taken to quantify Part D's benefits.

The "Value" of Part D

Various approaches have been used to calculate the value of Part D. One approach has been to estimate the impact of the program on specific outcomes of interest. These analyses find that Part D increases drug utilization and improves mental health, with mixed evidence on whether it reduces mortality.[2] However, effects on such specific outcomes cannot capture the full costs and benefits of the program.

Figure 1. Medicare Part D Standard Cost-Sharing Structure in 2019



* The estimate of $8,140 in total costs for the catastrophic threshold equates to a $5,100 out-of-pocket threshold in 2019.
Source: Kaiser Family Foundation (2018).

Other studies have tried to measure the "utility" derived from the program – essentially, how much would people be willing to pay for Part D? One of the first papers to estimate its utility value found that the welfare gains from the program roughly equaled its cost.[3] More recent work estimated that Part D was more valuable than originally thought, mostly because it permitted sick people in their late 60s to retire instead of working purely to keep their employer-provided drug insurance.[4]

This utility approach is the best way to answer society-wide questions like "how many resources should the government devote to Part D?" However, from the perspective of an individual looking at the narrow question of household finances, a more immediate question is how large of a subsidy the program will provide. This analysis answers this simpler question from the perspective of a 65-year-old in 2019, given what we know today from the first 12 years of the program.

Methods

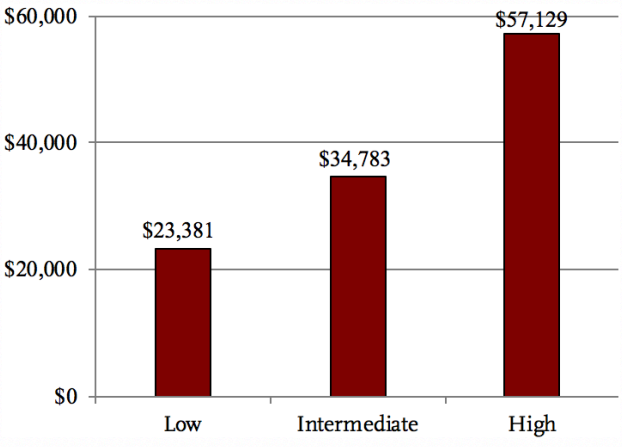
The data for the analysis come primarily from the annual *Medicare Trustees Report*.[5] For each year, total beneficiary premiums are subtracted from total program non-administrative costs to measure the total subsidies (all expenditures on premium subsidies, LIS, and catastrophic coverage payments) flowing directly or indirectly (e.g., through prescription drug plans) to beneficiaries.[6] This total difference is then divided by the number of beneficiaries in that year to get the average participant subsidy.

This exercise is done for each year from 2006-2018. Going forward, past average net subsidy trends are extrapolated to 2019-2073. The assumptions for this extrapolation are made under three alternative scenarios that correspond to a low, intermediate, and high expected present value of subsidies. Each scenario projects net subsidies per capita out to age 120, discounts them back to age 65, and sums up the discounted subsidies using three parameters. The first is the survival probability by age and gender, which follows the cohort mortality table from the *2019 Social Security Trustees Report's* intermediate scenario with a 10-percent reduction and increase in survival probability for high- and low-subsidy scenarios, respectively.[7] The second parameter is the interest rate, which – in each scenario – comes from the long-run assumptions of real interest and inflation in the *2019 Medicare Trustees Report*.[8] The third is the annual net subsidy to the beneficiary, which equals per capita Medicare costs minus premiums under each scenario assumed in the *2019 Medicare Trustees Report* for 2019-2029, and is extrapolated linearly beyond that period.[9] The resulting calculation, which sums the discounted net annual subsidies, yields the expected present value of subsidies for each of the three scenarios.

Results

Figure 2 shows the expected lifetime subsidy of Part D for a 65-year-old in 2019 under the low, intermediate, and high-subsidy scenarios. In the low-subsidy scenario – with high mortality, high discount rates, and low growth in net subsidies – the expected subsidies for an individual entering the program in 2019 are about $23,000, rising to $35,000 in the intermediate scenario, and $57,000 in the high-subsidy scenario.

Figure 2. Expected Present Value of Medicare Part D Subsidies for a 65-Year-Old in 2019, by Subsidy Scenario

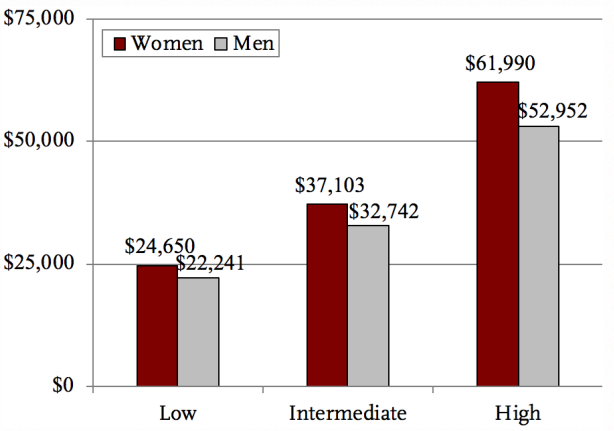


Source: Authors' calculations based on Centers for Medicare & Medicaid Services (2019).

To put these numbers in context, the median 401(k)/IRA account balance for individuals ages 55-64 was only $104,000 in 2016.[10] Thus, the intermediate subsidy estimate corresponds to one-third of the financial assets held by the median individual approaching retirement. Part D, therefore, represents a substantial transfer of wealth to individuals reaching age 65. The size of this transfer may be underappreciated because it is distributed as an in-kind benefit, filtered through private insurers, and distributed slowly over the duration of an individual's life.

Naturally, these values vary with mortality rates, as mortality determines how long an individual benefits from Part D. The different scenarios already account for higher (lower) mortality in the low (high) subsidy assumptions. However, the baseline mortality rate is lower for women than for men, so women can expect a lifetime subsidy that is 13 percent greater than men (see Figure 3).

Figure 3. Expected Present Value of Medicare Part D Subsidies for a 65-Year-Old in 2019 by Gender and Subsidy Scenario



Source: Authors' calculations based on Centers for Medicare & Medicaid Services (2019).

These calculations produce an average expected subsidy. Any given individual's subsidy will be based on his longevity and discount rate. Furthermore, those with lower incomes will receive higher subsidies (because of the LIS and the fact that higher-income enrollees pay higher premiums), while individuals in different locations will face a different menu of plan options. Above all, individuals with high drug utilization will receive the most. However, for an individual without knowledge of his future geographic, financial, and health situation, this average is the best guess of lifetime subsidies.

Conclusion

Medicare Part D represented a large expansion of the Medicare program – and a substantial implicit transfer of wealth to beneficiaries. The scale of this transfer from an individual's perspective may be hard to comprehend because it takes the form of subsidies to private insurers, disbursed over decades of the individual's life after age 65. This *brief* calculates the present value of the average subsidy for an individual entering the program today.

The results show that the expected lifetime amount of the Part D subsidy is roughly $20,000 to $60,000 for a 65-year-old in 2019, with an intermediate estimate of $35,000. This sum is large relative to the retirement saving of households at that age, and, given the size of the transfer, it is unsurprising that Part D has had far-reaching impacts on the behavior and well-being of older Americans. The rising costs of the program may lead to questions about its future financing, but these results should leave no doubt as to the large footprint that Medicare Part D has on the finances of the retired population.

Endnotes

1 In addition to these components, Part D also compensates employers who provide drug coverage to Medicare-eligible workers and retirees.

2 For effects on utilization, see Engelhardt and Gruber (2011). For effects on mental health, see Ayyagari and Shane (2015). For effects on mortality, see Kaestner, Schiman, and Alexander (2017); Huh and Reif (2018); Dunn and Shapiro (2019).

3 Engelhardt and Gruber (2011).

4 Wettstein (2019).

5 Centers for Medicare & Medicaid Services (2019).

6 Total subsidies also include the federal subsidies to employers offering drug coverage to older workers and retirees. These subsidies do *not* include the employer contributions to premiums, since these contributions would presumably have been paid out as some other form of compensation otherwise. Copayments that beneficiaries pay to their insurance company are counted neither as a benefit nor a cost.

7 The expected subsidy estimate is not sensitive to the different adjustment factors. Unisex mortality is used for the main calculation, while more detailed calculations for Figure 2 use gender-specific mortality rates.

8 See Table II.C1 in Centers for Medicare & Medicaid Services (2019).

9 Table III.D5 in Centers for Medicare & Medicaid Services (2019) shows the short-run (10-year) projected annual Medicare cost and premium under three scenarios: intermediate, low cost, and high cost. This *brief* assumes that the long-run nominal growth rates for both the cost and premium per capita follow their linearly projected short-run averages under each scenario.

10 Munnell and Chen (2017).

References

Ayyagari, Padmaja and Dan M. Shane. 2015. "Does Prescription Drug Coverage Improve Mental Health? Evidence from Medicare Part D." *Journal of Health Economics* 41: 46-58.

Centers for Medicare & Medicaid Services. 2019. *2019 Annual Report of the Board of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds*. Washington, DC.

Dunn, Abe and Adam H. Shapiro. 2019. "Does Medicare Part D Save Lives?" *American Journal of Health Economics* 5(1): 126-164.

Engelhardt, Gary V. and Jonathan Gruber. 2011. "Medicare Part D and the Financial Protection of the Elderly." *American Economic Journal: Economic Policy* 3(4): 77-102.

Huh, Jason and Julian Reif. 2017. "Did Medicare Part D Reduce Mortality?" *Journal of Health Economics* 53: 17-37.

Kaestner, Robert, Cuping Schiman, and G. Caleb Alexander. 2017. "Effects of Prescription Drug Insurance on Hospitalization and Mortality: Evidence from Medicare Part D." *Journal of Risk and Insurance*.

Kaiser Family Foundation. 2018. "An Overview of the Medicare Part D Prescription Drug Benefit." Fact Sheet. Available at: https://www.kff.org/medicare/fact-sheet/an-overview-of-the-medicare-part-d-prescription-drug-benefit/

Munnell, Alicia H. and Anqi Chen. 2017. "401(k)/IRA Holdings in 2016: An Update from the SCF." *Issue in Brief* 17-18. Chestnut Hill, MA: Center for Retirement Research at Boston College.

Wettstein, Gal. 2019 (forthcoming). "Retirement Lock and Prescription Drug Insurance: Evidence from Medicare Part D." *American Economic Journal: Economic Policy*.

CENTER *for*
RETIREMENT
RESEARCH
at BOSTON COLLEGE

About the Center

The mission of the Center for Retirement Research at Boston College is to produce first-class research and educational tools and forge a strong link between the academic community and decision-makers in the public and private sectors around an issue of critical importance to the nation's future. To achieve this mission, the Center conducts a wide variety of research projects, transmits new findings to a broad audience, trains new scholars, and broadens access to valuable data sources. Since its inception in 1998, the Center has established a reputation as an authoritative source of information on all major aspects of the retirement income debate.

Affiliated Institutions

The Brookings Institution
Mathematica – Center for Studying Disability Policy
Syracuse University
Urban Institute

Contact Information

Center for Retirement Research
Boston College
Hovey House
140 Commonwealth Avenue
Chestnut Hill, MA 02467-3808
Phone: (617) 552-1762
Fax: (617) 552-0191
E-mail: crr@bc.edu
Website: https://crr.bc.edu

The CRR gratefully acknowledges the Commonwealth Fund for its support of this research. The findings and conclusions expressed are solely those of the authors and do not represent the opinions or policy of the Commonwealth Fund or the Center for Retirement Research at Boston College.