

The Impact of Enrollment in the Medicare Prescription Drug Benefit on Premiums

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EXECUTIVE SUMMARY

The Medicare Modernization Act of 2003 (MMA) authorized a voluntary prescription drug benefit for Medicare that fundamentally alters the way beneficiaries interact with the program. Unlike Medicare Part B—which is also voluntary—most Medicare beneficiaries will have to make an active decision to enroll in a private plan to receive drug benefits. Medicare beneficiaries who are automatically eligible for Medicare Part A (i.e., who have 40 quarters of qualified work experience) are presumed to enroll in Part B unless they affirmatively opt-out of the program. Enrollees in Medicare prescription drug plans are required to pay a monthly premium, determined by private plan bids and not directly by the federal government, unlike Medicare Part B.¹

The Congressional Budget Office (CBO) and the Office of the Actuary (OACT) in the Centers for Medicare and Medicaid Services (CMS) have projected that a significant proportion of Medicare beneficiaries will enroll in the new Medicare prescription drug benefit in 2006. They estimate that the majority of Medicare beneficiaries—approximately 80 percent, according to CBO or 91 percent, according to CMS— will enroll in a Medicare prescription drug plan or a retiree plan that receives the subsidy. CBO assumes that certain features of the Medicare drug benefit, such as the value of the federal premium subsidy, the existence of a penalty for late enrollment, and the availability of low-income subsidies, will result in high enrollment.

Some analysts have questioned those projections, arguing that some Medicare beneficiaries, especially those who have low expected drug spending, will decide not to enroll in 2006. Recent experience with other programs enacted by MMA— such as the Medicare drug discount card and the Medicare Replacement Drug Demonstration—as well as recent survey data on Medicare beneficiaries' attitudes towards the drug benefit, suggest that beneficiaries may not enroll immediately in 2006. Such deferred enrollment could increase costs for enrollees over time, since premiums paid by beneficiaries are calculated to cover about 25 percent of average expected drug costs across the enrolled population. If only those beneficiaries who have high prescription drug spending enroll in the benefit, average premiums could be significantly higher than currently projected by CBO and OACT in 2007 and thereafter. To date, neither CBO nor OACT has made public any analysis of the effect that lower- than-expected enrollment would have on monthly premiums for the Medicare drug benefit.

The purpose of this paper is to examine the effects of participation assumptions on monthly premiums and federal costs of the Medicare prescription drug benefit, particularly if beneficiaries with relatively low drug spending do not enroll. This analysis solely focuses on the impact of various enrollment scenarios, based on beneficiaries' prescription drug costs, on average Medicare prescription drug plan premiums. The analysis holds constant other factors that also could affect average plan premiums in the future, including drug prices and utilization, and other market dynamics that could affect plan participation. We held these factors constant in

¹ Dual eligible beneficiaries and those beneficiaries below 135 percent of poverty and who meet certain assets requirements do not pay premiums if they enroll in a plan that offers a premium below the regional low-income benchmark amount. The federal government will fully subsidize their premiums. Other beneficiaries below 150 percent of poverty and who meet certain assets requirements will pay premiums on a sliding scale basis.

our analysis to illustrate the importance of beneficiary participation – particularly those with relatively low drug costs – for Medicare drug plan premiums.

Methodology

Using a model developed by the Actuarial Research Corporation (ARC), Avalere Health LLC conducted an analysis of the impact of enrollment in the Medicare drug benefit on average Medicare prescription drug benefit premiums. Consistent with the estimating methodology used by CBO, we assumed that dual eligibles (those eligible for both Medicare and Medicaid) and Medicare Advantage enrollees will enroll in a Medicare prescription drug plan. Also, like CBO, we assumed that those Medicare beneficiaries who are active workers receiving employer-sponsored insurance and those receiving drug coverage through a government retiree health insurance program will not enroll in a Medicare prescription drug plan.

We then isolated three significant subgroups within the remaining Medicare beneficiaries—low-income subsidy eligible beneficiaries, beneficiaries who are projected to lose retiree health benefits, and beneficiaries currently enrolled in the traditional fee-for-service program who do not qualify for low-income subsidies, three-quarters of whom currently lack any prescription drug coverage. We divided each of these groups into five quintiles based on their expected drug spending, placing those beneficiaries with the highest drug spending in the highest quintile. We then estimated what average Medicare prescription drug premiums would be if enrollment of each one of these groups varied while enrollment in the other two groups was held constant at 100 percent. Finally, we estimated what the premiums and federal costs would be under five possible enrollment scenarios. We start with full participation (100 percent). We then estimate premiums if only 80 percent of the three groups enrolled – omitting 20 percent of individuals in each group with the lowest drug spending. We repeated this procedure until we had only 20 percent of beneficiaries in each of the three groups with the highest drug spending.

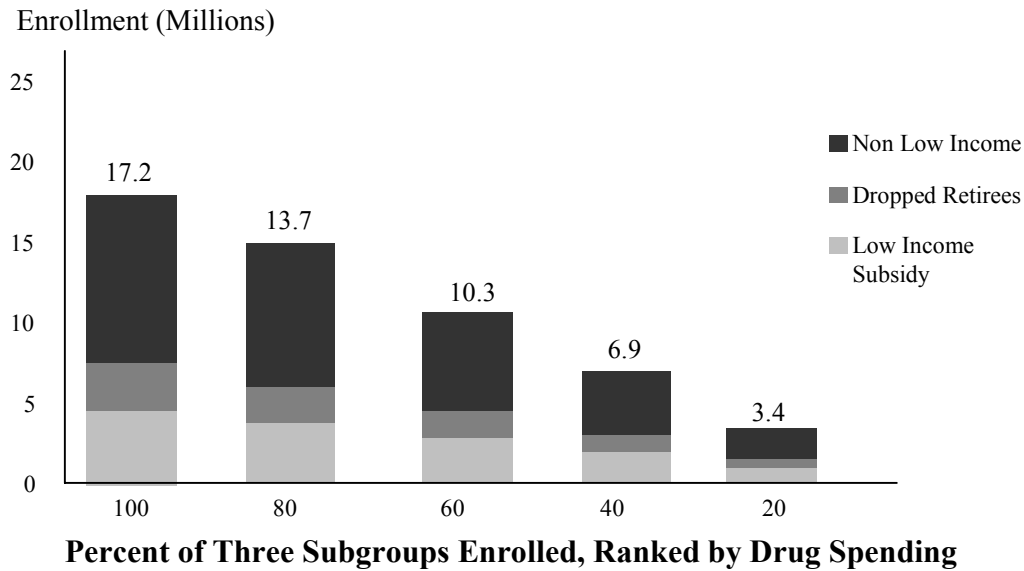
Approximately 12 million beneficiaries (individuals dually eligible for Medicare and Medicaid, beneficiaries enrolled in state pharmacy assistance programs, and Medicare Advantage enrollees) are assumed to enroll under each of the five scenarios. Under the 20 percent participation scenario, approximately 17 million beneficiaries enroll, with enrollment increasing under each scenario, until full participation is achieved, with 29.1 million beneficiaries enrolled in a Medicare prescription drug plan.

Findings

Our analysis finds that average premiums for the Medicare prescription drug benefit could be significantly higher in 2007 than current CBO projections if enrollment is significantly concentrated among beneficiaries who have high expected drug spending.

Figure 1 illustrates total enrollment under each of the five scenarios, with participation varying among three groups: individuals eligible for low-income subsidies, individuals who no longer receive employer-sponsored retiree health benefits and individuals who do not qualify for low income subsidies.

Figure 1. Enrollment of Three Subgroups Under Five Possible Scenarios*



*Note: The five enrollment scenarios assume 13.5 million beneficiaries participate including: Medicare Advantage (MA) enrollees (n=5.5 million), individuals eligible for both Medicare and Medicaid (dual eligibles) (n=6.4 million), and Medicare beneficiaries enrolled in state pharmacy assistance programs (SPAPs) (n=1.6 million).
 Source: Avalere Health LLC estimates using a model developed by the Actuarial Research Corporation for the Henry J. Kaiser Family Foundation.

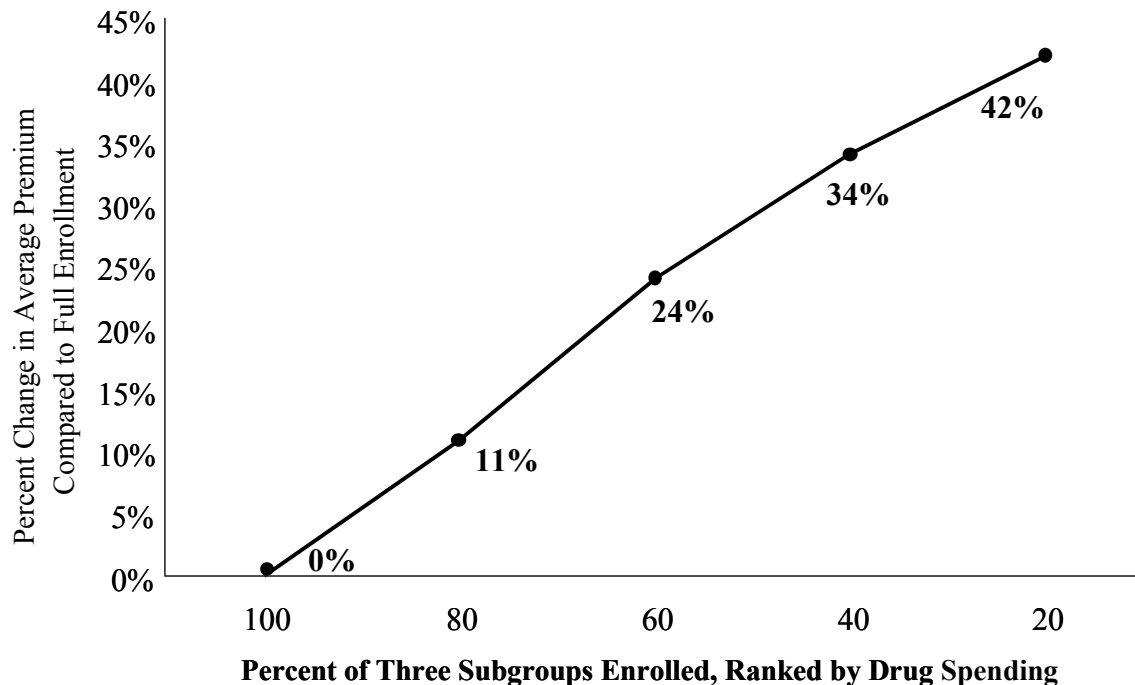
Figure 2 illustrates that average Medicare prescription drug benefit premiums vary significantly based on the percentage of beneficiaries who enroll, both overall and by subgroup.

If enrollment is less than expected, average premiums will increase.

- If enrollment of these three subgroups – low income subsidy recipients, retirees who lost employer benefits and non-low income beneficiaries - is limited to the highest spending 20 percent of beneficiaries, the average premium could be as much as 42 percent higher than if all beneficiaries in these three groups enroll.
- If the highest spending 60 percent of beneficiaries enroll in a Medicare prescription drug plan, the premium could be 24 percent higher than it would be with full enrollment

The impact on premiums is modest if enrollment is low among low-income beneficiaries or retirees who lose employer-sponsored drug coverage; however, the impact is considerable if higher-income beneficiaries (those not eligible for low-income subsidies) do not enroll.

Figure 2: Percent Increase in Premiums Relative to 100 Percent Enrollment Under Five Possible Scenarios*



*Note: The five enrollment scenarios assume 13.5 million beneficiaries participate including: Medicare Advantage (MA) enrollees (n=5.5 million), individuals eligible for both Medicare and Medicaid (dual eligibles) (n=6.4 million), and Medicare beneficiaries enrolled in state pharmacy assistance programs (SPAPs) (n=1.6 million).

Source: Avalere Health LLC estimates using a model developed by the Actuarial Research Corporation for the Henry J. Kaiser Family Foundation.

Our analysis also finds that enrollment levels do not significantly alter the federal costs of the Medicare prescription drug benefit if enrollment is concentrated among those beneficiaries who have the highest drug spending, as shown in Figure 3. Even if only the highest spending 20 percent of beneficiaries enroll, net federal costs are only 2 percent lower than if all beneficiaries are assumed to enroll. These relatively small differences result because the cost per beneficiary would increase significantly—by almost 50 percent—based on enrollment limited to high drug spenders. The federal government would pay \$60.4 billion in 2006 to provide coverage for 23 million beneficiaries, nearly the same costs (\$60.6 billion) as providing coverage to 29 million beneficiaries. However, if enrollment is lower than expected and evenly distributed among high-spending and low-spending beneficiaries, then total federal outlays would be lower overall.

Figure 3: Estimated Federal Costs Based on Enrollment, Ranked by Drug Spending

Enrollment (Ranked by Drug Spending)	Total Federal Costs (Billions)	Enrollment (Millions)	Average Costs per Enrolled Beneficiary
100 percent	\$60.6	29.1	\$2,080
80 percent	\$60.8	26.3	\$2,311
60 percent	\$60.4	23.4	\$2,587
40 percent	\$58.5	20.4	\$2,860
20 percent	\$54.3	17.5	\$3,095

Source: Avalere Health LLC estimates using a model developed by the Actuarial Research Corporation for the Henry J. Kaiser Family Foundation.

Implications

The results point to the importance of relatively full participation in Medicare prescription drug plans, and in particular, of enrolling beneficiaries in relatively good health, including non-low-income beneficiaries, many of whom lack prescription drug coverage today. Efforts to date have focused on low-income Medicare beneficiaries, and CMS has established several processes to assist low-income beneficiaries to enroll. While it remains an imperative to help low-income beneficiaries enroll and receive the generous assistance to which they are entitled, outreach and education efforts are equally important for other beneficiaries to ensure that average plan premiums remain affordable and that the entire drug benefit remains sustainable over time.

Without such a concerted effort, Medicare prescription drug plan premiums could quickly escalate, further deterring enrollment in the drug benefit among beneficiaries with low expected drug spending and potentially causing some beneficiaries to change course and disenroll in the future.

Introduction

The Medicare Modernization Act of 2003 (MMA) authorized the creation of a voluntary prescription drug benefit. The drug benefit is anticipated to lower out-of-pocket spending on prescription drugs for millions of Medicare beneficiaries. The Centers for Medicare and Medicaid Services (CMS) estimates that the drug benefit will pay about half of annual drug spending for the average beneficiary and a substantially higher proportion – about 96 percent of annual drug spending – for beneficiaries who receive low-income subsidies.² To receive those benefits, most Medicare beneficiaries will need to make an active election to enroll in a Medicare prescription drug plan, by either enrolling in a stand-alone prescription drug plan (PDP) or a Medicare Advantage prescription drug (MA-PD) plan. In addition, most beneficiaries who are eligible to receive low-income subsidies must apply for those benefits either through the Social Security Administration (SSA) or through state Medicaid agencies.³

Federal budget analysts have estimated that the vast majority of those beneficiaries who are eligible to enroll in a Medicare prescription drug plan will do so. CMS estimates in the 2005 Medicare Trustees Report that of the nearly 43 million Medicare beneficiaries who will be eligible to enroll in a Medicare prescription drug plan in 2006, about 39 million of those, or 91 percent, will receive drug coverage either through a Medicare prescription drug plan or through an employer- or union-sponsored plan that is eligible for the Medicare retiree drug subsidy.⁴ The Congressional Budget Office (CBO) estimates that a lower percentage – about 80 percent of all Medicare beneficiaries – will elect to enroll in a Medicare prescription drug plan or a retiree drug plan that receives the subsidy.⁵ Both estimates assume that certain features of the Medicare drug benefit's design, including the value of the federal premium subsidy (nearly 75 percent)⁶, the existence of a penalty for late enrollment, and the availability of low-income subsidies, will contribute to the high enrollment. Partially as a result of these high enrollment estimates, CBO estimates that the average Medicare prescription drug benefit premium will be about \$37 in 2006.

Recent experience with other programs enacted by the MMA and recent survey data on Medicare beneficiaries' attitudes towards the drug benefit have raised concerns among some analysts that those estimates may be overly optimistic. Enrollment in both the Medicare-endorsed prescription drug discount card and the Medicare Replacement Drug Demonstration (MRDD) created by MMA was lower than expected. Recent survey data show that many Medicare beneficiaries remain confused by the new prescription drug benefit. Many of those who indicate they do understand the benefit do not believe they will personally benefit from it.⁷ Beneficiaries'

² 70 *Federal Register*: 4465, January 28, 2005.

³ 70 *Federal Register*: 4573, January 28, 2005. §423.774(a)

⁴ 2005 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds. Table IV.B10. p. 145. Available at: <http://www.cms.hhs.gov/publications/trusteesreport/tr2005.pdf>.

⁵ Congressional Budget Office. "Fact Sheet for CBO's March 2005 Baseline: MEDICARE." Congressional Budget Office, 2005. p. 5.

⁶ The MMA sets the average subsidy at 74.5 percent.

⁷ Kaiser Family Foundation. *Views on the Medicare Prescription Drug Benefit*. August 2005. Available at: <http://www.kff.org/kaiserpolls/med082505pkg.cfm>.

attitudes about the benefit will affect their willingness to enroll in a Medicare prescription drug plan in 2006.

Whether the national average premium in 2006 is higher or lower than CBO's estimate depends upon the levels of the bids that potential plans submitted to CMS on June 6, 2005. A number of factors determine the level of an individual plan's premium bid. These factors include:

- The expected health status of the individuals the plan expects to enroll;
- The expected drug costs of those enrollees;
- The ability of the plan to negotiate discounts from pharmaceutical manufacturers;
- The expected ability of the plan to manage enrollees' utilization of drugs overall and the mix of drugs used (e.g., brand-name vs. generic drugs); and
- The level of the plan's administrative costs (e.g., marketing costs).

Each of those factors is uncertain, and will vary from plan to plan. In addition, plans' experience in the 2006 plan year—including the number and characteristics of beneficiaries the plan enrolls and the costs the plan incurs in providing their drug benefits—will have an impact on plans' bids for the 2007 plan year.

The 2006 national average monthly bid amount was calculated by CMS, after it received all of the plan bids in 2006, to be \$32.20, about \$5 (or 13 percent) lower than CBO's most recent estimate. It is not clear yet why the actual average premium is lower than CBO's estimate. Plans submitting bids may believe that actual drug spending will be lower or their ability to manage costs and secure discounts will be greater than CBO had estimated. Plans may have also strategically submitted low bids in order to attract beneficiaries (particularly dual-eligible and other low-income beneficiaries) in the first years of the benefit. Plans will submit new bids in June 2006 for the 2007 benefit year. The 2007 bids will reflect actual 2006 enrollment.

While the design of the prescription drug benefit—specifically, the availability of risk adjustment, reinsurance subsidies, and risk corridors—mitigates plans' risk for unanticipated differences between the expected and actual health status of their enrollees, there is no mechanism to reimburse plans if the level of enrollment they achieve is too low to compensate for the initial fixed costs of participating in the drug benefit. This study considers the hypothesis that if, indeed, enrollment overall is lower than expected in 2006, premiums for the 2007 plan year might be higher. As described in more detail below, current CBO estimates of average beneficiary premiums are based on the assumption that participation in the drug benefit will be robust, and therefore that the plans will enroll both beneficiaries who use many drugs, as well as those who use few or no drugs.⁸ However, if enrollment in the drug benefit is lower than anticipated, drug plans may experience adverse selection. That is, beneficiaries who enroll may have poorer health status and higher drug costs, on average, than those who choose not to enroll.

⁸ Congressional Budget Office. *A Detailed Description of CBO's Cost Estimate for the Medicare Prescription Drug Benefit*. Congressional Budget Office, 2004. p.4.

Since plans' estimates of future drug costs will be based upon their past experience and claims data, plans submitting bids for 2007 would reflect the adversely selected mix of beneficiaries who enrolled in 2006.

The purpose of this paper is to examine the effects of participation assumptions on monthly premiums and federal costs of the Medicare prescription drug benefit, particularly if beneficiaries with relatively low drug spending do not enroll. The paper 1) describes how CBO produced its premium estimates; 2) examines the impact on premiums if certain sub-categories of beneficiaries do not enroll; 3) presents estimates of the average monthly premium in 2006 under five possible enrollment scenarios; and 4) discusses the implications for federal policy if enrollment is lower than projected.

This analysis solely focuses on the impact of various enrollment scenarios, based on beneficiaries' prescription drug costs, on average Medicare prescription drug plan premiums. The analysis holds constant other factors that also could affect average plan premiums in the future, including drug prices and utilization, and other market dynamics that could affect plan participation. We held these factors constant in our analysis to illustrate the importance of beneficiary participation – particularly those with relatively low drug costs – for Medicare drug plan premiums.

Actual 2006 Premium Estimates Versus Analysis

The paper presents the enrollment scenarios and estimated monthly premiums for 2006; however, actual premiums for 2006 are based on plans' bids to CMS and not actual enrollment. The scenarios indicate how enrollment will impact future Medicare prescription drug benefit premiums if actual enrollment in 2006 is less than currently projected by the official federal estimates, specifically CBO's estimates. In effect, this paper presents an analysis of CBO's premium estimates if enrollment is less than expected. To date, CBO has not publicly released such an analysis.

CBO's Estimates of the Medicare Prescription Drug Benefit Premium

Unlike the Part B premium, which is established on a uniform, national basis by CMS, the monthly premium for Medicare prescription drug benefit will be established by participating plans, both individually and collectively. Potential drug plans will submit bids to CMS on an annual basis that reflect their estimates of the cost per beneficiary of providing the drug benefit. CMS will calculate a national average of the plan bids, and set an average beneficiary premium that covers 25.5 percent of the expected average costs per beneficiary.⁹

Beneficiaries with incomes below 135 percent of the federal poverty level (FPL) and who qualify for the low-income subsidy will not pay any premiums, as long as they enroll in a plan that offers a premium below the regional low-income premium benchmark. CMS will use a sliding scale to

⁹ 70 *Federal Register*: 4546, January 28, 2005. §423.286

determine premium subsidy amounts for low-income beneficiaries with incomes between 135 percent and 150 percent FPL.^{10,11}

To estimate the monthly premium for 2006, CBO estimated the number of beneficiaries who would enroll in the new benefit and the average costs per enrollee. CBO performed its enrollment estimates by analyzing several components:

- *The generosity of the Medicare prescription drug benefit subsidy.* Under the Medicare benefit, the federal government will subsidize an estimated 74.5 percent of the expected benefit and administrative costs associated with the benefit.¹² CBO compared this subsidy level to drug subsidy levels currently provided to Medicare beneficiaries under Medicare Part B, which has a similar subsidy level (75 percent for Part B¹³ vs. 74.5 percent for the Medicare prescription drug benefit) and high enrollment (94 percent of eligible beneficiaries are enrolled in Part B¹⁴).
- *The availability of low-income subsidies.* Beneficiaries who qualify for the low-income subsidies will receive a much greater level of federal assistance. CMS estimates that the prescription drug benefit will cover 96 percent of annual prescription drug costs for beneficiaries who qualify for the low-income subsidy.¹⁵
- *The impact of late-enrollment penalty.* Under the law, eligible beneficiaries who delay enrollment will be assessed a surcharge on their Medicare prescription drug benefit premium. The surcharge is calculated to be 1 percent of the national average premium amount for every month of delayed enrollment.¹⁶ CBO assumed that the possibility of higher premiums in later years will encourage beneficiaries, even those who have low drug spending today, to enroll during the open enrollment period in which they are first eligible.¹⁷

CBO's Enrollment Estimates

CBO estimates that 80 percent of Medicare beneficiaries will receive benefits under the Medicare prescription drug benefit.¹⁸ To produce this estimate, CBO examined separate

¹⁰ For beneficiaries with incomes between 135 and 140 percent FPL, CMS will subsidize 75 percent of the plan premium. For beneficiaries between 140 and 145 percent of poverty, CMS will subsidize 50 percent of the premium. And for beneficiaries between 145 and 150 percent of poverty, CMS will subsidize 25 percent of the premium.

¹¹ 70 *Federal Register*: 4566, January 28, 2005.

¹² Medicare Modernization Act. Sec. 1860D-15(a).

¹³ Congressional Budget Office. *Issues in Designing a Prescription Drug Benefit for Medicare*. Congressional Budget Office, 2002.

¹⁴ *Ibid.* p.4.

¹⁵ 70 *Federal Register*: 4565, January 28, 2005.

¹⁶ 70 *Federal Register*: 4545, January 28, 2005. §423.286(d)(3).

¹⁷ Congressional Budget Office. *A Detailed Description of CBO's Cost Estimate for the Medicare Prescription Drug Benefit*. Congressional Budget Office, 2004. p. 4.

¹⁸ Congressional Budget Office. "Fact Sheet for CBO's March 2005 Baseline: MEDICARE." Congressional Budget Office, 2005. p. 5.

categories of beneficiaries and made a determination of whether that category was likely to participate in the new benefit.

CBO began their estimates with the assumption that those beneficiaries who do not elect to enroll in Medicare Part B, about 6 percent of all enrollees, will also not elect to enroll in the Medicare prescription drug benefit.¹⁹ Next, CBO considered the decisions of Medicare beneficiaries who are active workers and receive drug coverage through their employers, where Medicare is a secondary payer. CBO also considered the decisions of Medicare beneficiaries who receive drug benefits from other federal programs that will continue to provide prescription drug benefits after implementation of the Medicare prescription drug benefit. CBO estimated that both active workers and beneficiaries in other federal programs²⁰, constituting about 7 percent of Medicare Part B enrollees, would not enroll in a Medicare prescription drug plan.²¹

CBO analyzed separately retired beneficiaries with employer- or union-sponsored coverage. CBO's analysis found that about 30 percent of enrollees in Medicare Part B receive prescription drug coverage through a former employer. CBO estimated that after 2006, employers for about two-thirds of enrollees will take the subsidy and continue to offer coverage to their retirees. Those beneficiaries would not be enrolled in a Medicare prescription drug plan, but would continue to have prescription drug coverage in 2006. CBO estimated the other one-third of these beneficiaries, hereinafter referred to as "dropped retirees," would enroll a Medicare prescription drug plan.²²

Our interpretation of CBO's estimates is that they assumed that most of the remaining Medicare beneficiaries (approximately 25.8 million beneficiaries out of the remaining 29 million remaining) would enroll in a Medicare prescription drug benefit plan in 2006.²³ These beneficiaries include:

- *Dual Eligible Beneficiaries (individuals enrolled in both Medicare and Medicaid).* CBO estimated that the 6.4 million dual eligible beneficiaries would enroll in a Medicare prescription drug plan. These individuals currently receive drug benefits through state Medicaid programs but are required to enroll (or will be automatically enrolled by CMS) in a Medicare prescription drug plan to continue to receive drug benefits.²⁴ After January 1, 2006, state Medicaid programs will no longer be permitted to provide prescription drug coverage to dual eligible beneficiaries.

¹⁹ Congressional Budget Office. *A Detailed Description of CBO's Cost Estimate for the Medicare Prescription Drug Benefit*. Congressional Budget Office, 2004. p. 4-5.

²⁰ Federal retirees in the Federal Employee Health Benefits program (FEHBP), military retirees in the TRICARE For Life program, and beneficiaries who are enrolled in Veterans' Affairs.

²¹ Congressional Budget Office. *A Detailed Description of CBO's Cost Estimate for the Medicare Prescription Drug Benefit*. Congressional Budget Office, 2004. p. 5.

²² Ibid. p. 24.

²³ Ibid. p. 4.

²⁴ Ibid. p. 29.

- *Medicare Advantage Enrollees.* CBO assumed that the approximately 5.5 million Medicare Advantage (MA) enrollees²⁵ would enroll in a Medicare prescription drug plan. If an MA plan provides any drug benefits in 2005, and the plan is sponsoring an MA-PD plan, enrollees will be automatically enrolled in the MA-PD plan as of January 1, 2006.²⁶ Starting in 2006, most MA organizations are required to offer at least one qualified Medicare prescription drug plan, and enrollees of the plan may only receive drug coverage from the sponsoring MA plan.^{27,28}
- *Beneficiaries who currently receive Medigap drug coverage.* Approximately 8 percent of Part B enrollees, or 3.2 million beneficiaries, receive drug coverage from a Medigap plan. These beneficiaries do not receive any federal subsidy for the coverage. CBO estimated that all of these beneficiaries would enroll in the Medicare prescription drug plan since Medicare will offer a subsidized benefit.²⁹
- *Beneficiaries currently without drug coverage.* CBO estimated that most Medicare beneficiaries who currently do not have drug coverage today will enroll in a Medicare prescription drug benefit plan. These beneficiaries include most of the approximately 7.7 million non dual-eligibles who will likely qualify for the low-income subsidies.³⁰ CBO estimated that about 60 percent of those eligible for low-income subsidies would apply.³¹ That proportion is significantly higher than the participation rate for other government programs for low-income people.

CBO's Per-Beneficiary Cost Estimates

After estimating Medicare enrollment, CBO estimated the average costs of the benefits for the enrollment categories presented above. CBO derived current prescription spending data from the nationally-representative Medicare Current Beneficiary Survey (MCBS), and from other sources. CBO used the most recent year of available spending data, adjusted for survey undercount in the number of prescriptions and in drug spending, trended forward by a factor that accounts for expected growth in prescription drug costs over time. CBO then adjusted the spending estimates to account for the changes in per-beneficiary drug spending that are expected to occur as a result of the availability of a Medicare drug benefit. Those adjustments include:

- *Price effect.* The likelihood that average drug prices will increase since more beneficiaries will have drug coverage and be more insulated from the individual costs of prescription drugs.

²⁵ Congressional Budget Office. "Fact Sheet for CBO's March 2005 Baseline: MEDICARE." Congressional Budget Office, 2005. p. 5.

²⁶ 42 *Code of Federal Regulations* 422.66(e) et seq.

²⁷ Medical Savings Account plans and private fee-for-service plans are not required to offer a prescription drug plan.

²⁸ Medicare Modernization Act. Sec. 1860D-2(a)(2)(B).

²⁹ Kaiser Family Foundation. *Estimates of Medicare Beneficiaries' Out-of-Pocket Drug Spending in 2006*. November 2004. p. 26.

³⁰ Congressional Budget Office. Letter to the Honorable Don Nickles, Chairman, Committee on the Budget, United States Senate. November 20, 2003. Table 4.

³¹ Congressional Budget Office. *A Detailed Description of CBO's Cost Estimate for the Medicare Prescription Drug Benefit*. Congressional Budget Office, 2004.

- *Use effect.* The change in demand for drugs beneficiaries will have, depending upon whether their out-of-pocket costs decrease or increase as a result of the drug benefit.
- *Cost management factor.* Plans’ incentives to manage drug costs (e.g., whether they bear financial risk), the tools that plans have available to manage drug costs (e.g., whether they can use restrictive formularies), and the degree of competition among plans (e.g., whether there are only two plans in a region, or many plans) should reduce drug costs.
- *Impact of Medicaid best price.* Prices negotiated for prescription drugs offered by Medicare prescription drug plans which are negotiated between plans and pharmaceutical manufacturers are exempt from inclusion in the Medicaid “best price,” which CBO believes will result in discounts greater than those pharmaceutical manufactures offer commercial plans today.³²

CBO also estimated the level of plans’ administrative costs (such as marketing costs). The sum of the gross prescription drug costs and administrative costs represents the average amount per expected enrollee that plans will bid to offer the drug benefit. CBO calculated the beneficiary premium as 25.5 percent of that average amount, based upon a formula that is set by law.³³ As shown in Figure 4, for 2006, CBO estimated the national average monthly premium would be \$36.60. CBO then projected future years’ premiums by inflating their 2006 estimates for projected changes in the prescription drug spending.

Figure 4: CBO’s Average Monthly Premium Projections

	2006	2007	2008	2009	2010
Average Monthly Premium	\$36.60	\$37.10	\$40.90	\$43.60	\$47.10

Source: Fact Sheet for CBO’s March 2005 Baseline, March 8, 2005.

Enrollment Process for the Medicare Prescription Drug Benefit

While all Medicare beneficiaries are eligible for the Medicare prescription drug benefit, most individuals will need to make an affirmative election to participate in the benefit by enrolling with a participating Medicare prescription drug plan. Unlike Medicare Part B, enrollment in the voluntary benefit will not be administered through an “opt-out” basis.³⁴ The requirement that most beneficiaries must actively select enrollment in a Medicare prescription drug plan may mean that enrollment will not be initially as robust as expected.

³² Congressional Budget Office. *A Detailed Description of CBO’s Cost Estimate for the Medicare Prescription Drug Benefit.* Congressional Budget Office, 2004. p. 15.

³³ CBO estimated average premiums by applying the 74.5 percent average subsidy to average gross costs. Congressional Budget Office. *Estimating the Cost of the MMA: Testimony before the House Committee on Ways and Means.* March 24, 2004.

³⁴ 70 *Federal Register*: 4528, January 28, 2005. §423.32.

Beginning this fall, Medicare beneficiaries will be notified of the plan choices that participate in their geographic region. Current beneficiaries will be permitted to enroll in a plan between November 15, 2005 and May 15, 2006. Beneficiaries who are eligible to enroll during that period but fail to do so will be subject to a late enrollment premium penalty (if they do not have creditable coverage for a period of 63 consecutive days).³⁵ Future Medicare beneficiaries will be eligible to enroll in a Medicare prescription drug plan as soon as they become eligible for Medicare Parts A and B. They will have a seven-month time period in which to enroll.³⁶

Many beneficiaries will be presumed to be eligible for the low-income subsidies. Those beneficiaries include dual-eligible beneficiaries and beneficiaries who are enrolled in Medicare Savings Programs (MSPs); i.e., Medicaid programs that provide assistance with Medicare cost sharing. Other beneficiaries who are eligible for low-income subsidies must complete a five-page application form that includes questions about their income and the value of their assets.³⁷ Those applications have been mailed to 18.7 million beneficiaries, although only 14.1 million are actually expected to qualify.³⁸ Those who do apply and qualify for low-income assistance must then make another decision about which plan to join.

CMS will automatically enroll dual eligible beneficiaries into a plan if they do not actively enroll in one on their own accord. This fall, CMS will randomly assign dual eligible beneficiaries to PDPs which offer premiums below the regional low-income benchmark and notify them of this assignment.³⁹ Those dual eligible beneficiaries who do not make an affirmative choice of a private plan on their own behalf will receive prescription drug benefits from the CMS-assigned plans beginning on January 1, 2006.⁴⁰ CMS will permit dual eligible beneficiaries to switch plans as frequently as once per month after the auto-enrollment process is complete.⁴¹

CMS has also established a facilitated enrollment process for beneficiaries who are enrolled in the low-income subsidy program. Beneficiaries have been able to apply for the low-income subsidy since July 1, 2005.⁴² Moreover, beneficiaries who are currently enrolled in MSPs will be deemed to be eligible for the subsidy. CMS has stated that for these beneficiaries who applied

³⁵ If Part D eligible individuals are covered under a plan that is providing creditable prescription drug coverage, they will not be assessed a late enrollment penalty if they choose to enroll in Medicare prescription drug coverage at a later date. However, they will be assessed late enrollment penalties if they choose to drop coverage before they can enroll in a Medicare prescription drug plan (or lose coverage and do not promptly take advantage of the resulting Special Enrollment Period), and they go without any creditable coverage for a continuous period of 63 days or longer. CMS Guidance on Creditable Coverage. May 25, 2005. Available at: <http://www.cms.hhs.gov/medicarereform/CCGuidance.pdf>.

³⁶ Part D Initial Enrollment Period is defined at 70 *Federal Register*: 4529, January 28, 2005. §423.38. Part B Initial Enrollment Period is defined at 42CFR 407.14.

³⁷ A sample low-income subsidy application is available at: <http://www.ssa.gov/prescriptionhelp/>.

³⁸ Centers for Medicare and Medicaid Services to MMA_States listserv (email), "SSA LIS Applications by State", 27 September 2005. and Congressional Budget Office. Letter to the Honorable Don Nickles, Chairman, Committee on the Budget, United States Senate. November 20, 2003. Table 4.

³⁹ The regional low-income benchmark is calculated to be the regional average of PDPs and MA-PD bids. If not PDP bid amount is lower than the average, then the lowest premium offered by a PDP is the benchmark.

⁴⁰ 70 *Federal Register*: 4529, January 28, 2005. §423.34.

⁴¹ 70 *Federal Register*: 4530, January 28, 2005. §423.38(c)(4).

⁴² CMS Guidance to States on the Low-Income Subsidy. May 25, 2005. Available at: <http://www.cms.hhs.gov/medicarereform/guidance5-25-05.pdf>.

for the subsidy or are deemed eligible but who have not enrolled in a plan by May 15, 2006 will be enrolled in a plan by CMS, effective June 1, 2006. CMS will permit those individuals to switch plans once after the assignment.⁴³ Beneficiaries enrolled in MSPs will have the same ability to switch plans on a monthly basis as full dual eligibles.⁴⁴

Beneficiaries who do not qualify for low income assistance must determine whether enrolling in a Medicare prescription drug plan will be beneficial for them. Making this determination involves assessing their use of and spending on prescription drugs, the generosity of their current drug benefits (if any), the premiums paid for their current drug benefits (if any), the generosity of the benefits offered by the various Medicare prescription drug plans available in a given region, and the premiums for those plans.

These beneficiaries may receive some guidance about whether to enroll in a Medicare prescription drug plan or may have their choice made for them. As noted previously, beneficiaries who are currently enrolled in an MA plan that covers prescription drugs will be automatically deemed to have enrolled in an MA-PD plan, if their MA plan is offering such a plan.⁴⁵ Beneficiaries who currently receive prescription drug benefits through a Medicare supplemental (Medigap) plan must be notified if the plan determines that the Medigap drug coverage does not qualify as creditable coverage. In addition, employers who provide drug benefits to their retirees are required to notify retirees as to whether or not the retiree drug benefit is creditable coverage.⁴⁶

Enrollment Estimates for 2006 May Have Been Optimistic

There is much reason to believe that CBO's Medicare prescription drug benefit enrollment estimates, which, in part, result in a national average premium estimate of about \$37 per month in 2006, may have been optimistic. Recent experience with beneficiaries' willingness to enroll in similar programs and recent survey data suggest that Medicare prescription drug benefit enrollment may prove to be lower than previously expected.

For example, CMS estimated that enrollment in the Medicare-endorsed prescription drug program would reach 7.3 million beneficiaries by the end of 2004.⁴⁷ Actual enrollment in the card program was lower than expected – about 6.4 million⁴⁸ – and over three-quarters of those beneficiaries were automatically enrolled by state pharmaceutical assistance programs (SPAPs) or Medicare Advantage plans.⁴⁹

⁴³ CMS Summary of Auto Enrollment and Facilitated Enrollment of Low-Income Populations. April 5, 2005. Available at: http://www.cms.hhs.gov/medicarereform/states/auto_vs_facilitated.pdf.

⁴⁴ "Medicare Savings Program and Special Enrollment Period." CMS guidance to MMA States list serve. August 25, 2005.

⁴⁵ 70 *Federal Register*: 4718, January 28, 2005. §422.66.

⁴⁶ 70 *Federal Register*: 4532, January 28, 2005. §423.56.

⁴⁷ HHS Overview of Medicare Prescription Drug Discount Card and Transitional Assistance. Available at: <http://www.cms.hhs.gov/discountdrugs/overview.asp>.

⁴⁸ Communication with CMS Public Affairs Office. July 5, 2005.

⁴⁹ Personal communication with Avalere Health by former CMS official.

Participation in the Medicare Replacement Drug Demonstration (MRDD) program, which provides coverage for certain self-injected and cancer drugs during 2004 and 2005, has also been lower than expected.⁵⁰ Enrollment in the MRDD program is statutorily limited to 50,000 beneficiaries, and CMS established a lottery system to allocate enrollment slots to the much larger number of eligible beneficiaries because it believed demand for the program would greatly exceed the allocated number of slots. Moreover, CMS expected that the 50,000 patients would be enrolled within the first months of the demonstration. As of September 2005 – 11 months after the demonstration began—enrollment in the MRDD has reached only 37,759.⁵¹

Recent surveys of Medicare beneficiaries’ attitudes and perceptions of the prescription drug benefit show that many Medicare beneficiaries remain confused by the new prescription drug benefit. Further, many of those who understand the benefit have an unfavorable impression and do not believe that they will personally benefit from it. In August 2005, survey data show that the same percentage of seniors have an unfavorable impression (32 percent) as a favorable impression (32 percent) of the new prescription drug benefit. Twenty-nine (29) percent of seniors said they do not understand the benefit at all and only 37 percent of seniors believed it will help them personally.⁵²

In addition, beneficiaries may not view the Medicare drug benefit as an insurance benefit (i.e., the promise of providing greater assistance in future years when drug spending may be higher). Beneficiaries who have low drug spending may forestall enrollment during the first years of the benefit with the intention of enrolling when their expected drug costs are higher. Those beneficiaries who have low prescription drug spending may find that paying the penalty for late enrollment in future years is less expensive during their lifetimes than paying the monthly Medicare prescription drug benefit premium for the initial years of benefit eligibility. Figure 5 below illustrates, for a beneficiary who is eligible to enroll in the drug benefit in 2006, the impact of delaying enrollment in the prescription drug beneficiaries for 1, 2, 3 or 4 years. The table displays the average monthly Medicare drug benefit premium as estimated by CBO, as well as the average monthly premium that would result when the late enrollment penalties are added.

Figure 5: Impact of Late Enrollment Penalty on Average Beneficiary Premiums

	Year in Which Beneficiary Enrolls				
	2006	2007	2008	2009	2010
Average Monthly Premium (CBO)	\$36.60	\$37.10	\$40.90	\$43.60	\$47.10
Months of Delayed Enrollment*	7	19	31	43	55
Average Monthly Premium, Including Late Enrollment Penalty	\$39.16	\$44.11	\$52.82	\$60.75	\$69.91

*Assumes first-time enrollment in Part D during the open enrollment period from Nov. 15 to Dec. 31 of each year.
Source: Avalere Health LLC calculations based on CBO’s projections of average monthly premiums, from Fact Sheet for CBO’s March 2005 Baseline, March 8, 2005.

Moreover, some analysts and observers have speculated that the number of plans offering prescription drug benefits may deter enrollment. CMS has announced that there will be 10

⁵⁰ Medicare Modernization Act. Sec. 641.

⁵¹ Email communication with TrailBlazer Outreach officials. September 8, 2005.

⁵² Kaiser Family Foundation. *Views on the Medicare Prescription Drug Benefit*. August 2005. Available at: <http://www.kff.org/kaiserpolls/med082505pkg.cfm>.

national PDPs,⁵³ and there will be MA-PDs available in 48 states to most beneficiaries and MA-PDs available to all beneficiaries in 43 states.⁵⁴ These analysts and observers believe that many beneficiaries may be overwhelmed by the range of plan choices and may forego enrollment altogether. However, beneficiaries can choose from many plans offering premiums well below the average national premium estimate of \$32.20, according to CMS. The prevalence of low premium plans in 2006 may encourage greater participation.

These recent enrollment experiences and survey data may portend an actual enrollment scenario much different from CBO's estimates. If enrollment is lower than estimated and more concentrated among those with the highest drug costs, average Medicare prescription drug benefit premiums could be higher than CBO projects. While premiums in 2006 will be unaffected by the lower enrollment, premiums in subsequent years may be higher than currently projected by CBO as plans submit premium bids that reflect actual enrollment experience.

Medicare Prescription Drug Benefit Premium Analysis

This section analyzes the national average Medicare prescription drug benefit premium estimate if enrollment is lower than currently expected by federal cost estimators. Other factors that may affect average plan premiums, such as prices for prescription drugs, drug utilization by enrolled beneficiaries, and market dynamics that could affect plan participation, are held constant in this analysis. To produce these estimates, the authors used an actuarial model that was developed for the Kaiser Family Foundation by the Actuarial Research Corporation (ARC).

A full explanation of the model is described in the Appendix of this paper. The model is calibrated to reflect CBO's 2005 assumptions for enrollment, benefit design, increases in drug costs, and changes in the overall economy. The authors adjusted CBO's enrollment estimates to model the impact on average Medicare prescription drug benefit premiums if certain subpopulations of the Medicare population do not enroll in 2006. In addition to calculating the average Medicare prescription drug benefit premium, the authors also estimated the 2006 costs to the federal government under various enrollment scenarios.

By adjusting enrollment, we create different enrollment "scenarios" to estimate the impact on the national average Medicare prescription drug benefit premium. In producing these enrollment scenarios, the authors made the following assumptions consistent with CBO:

- Medicare beneficiaries who are currently employed and receiving drug coverage through employer sponsored health insurance (ESI), for whom Medicare is a secondary payer, do not enroll in a Medicare prescription drug plan.⁵⁵

⁵³ Accessible at <http://www.cms.hhs.gov/map/charts/nationalprescriptiondrugplanorganizations.pdf>.

⁵⁴ Avalere Health LLC analysis of CMS state-by-state press releases. Available at <http://www.cms.hhs.gov/map/map.asp#GA>.

⁵⁵ Kaiser Family Foundation. *Estimates of Medicare Beneficiaries' Out-of-Pocket Drug Spending in 2006*. November 2004. p. 26.

- All beneficiaries who receive drug coverage through a governmental retiree health care insurance program such as VA, FEHBP, or TRICARE for Life do not enroll in a Medicare prescription drug plan.⁵⁶
- Dual eligible beneficiaries successfully enroll in the Medicare prescription drug benefit in 2006 since enrollment in the benefit is a requirement for continuation of prescription drug benefits.⁵⁷
- All Medicare beneficiaries who are enrolled in a Medicare Advantage plan enroll in the Medicare prescription drug benefit.⁵⁸
- All Medicare prescription drug plans – PDPs or MA-PDs – offer the same basic drug benefit design. Beneficiaries are assumed to be neutral between enrolling in a PDP or MA-PD, with respect to the prescription drug benefit.

A few of our model assumptions are different than CBO assumptions:

- We assumed, consistent with CBO, that about 7 percent of all Part B enrollees would not see their employers supplement the basic Medicare prescription drug benefit.⁵⁹ However, Avalere Health LLC’s analysis varies the proportion of those beneficiaries who elect to enroll in a Medicare prescription drug plan voluntarily, while CBO assumes that all of those beneficiaries would enroll in a drug plan.
- Although not explicitly modeled by CBO, we assume that the approximately 1.6 million beneficiaries who are enrolled in SPAPs will enroll in a Medicare prescription drug plan.⁶⁰
- Finally, unlike CBO, we assume that all of the remaining Medicare beneficiaries eligible for Part B (beyond the abovementioned groups) may enroll in a Medicare prescription drug plan.

We then isolated three beneficiary subpopulation groups—those who are estimated to qualify for the low-income subsidies, beneficiaries who are dropped from their employer-sponsored drug plan, and all other beneficiaries (i.e., beneficiaries who have incomes and assets that disqualify them from the low-income subsidies and that did not have employer-sponsored retiree coverage or MA). For purposes of clarity, these groups will henceforth be referred to as low-income, dropped retirees, and non-low-income, respectively. We then stratified each of these population

⁵⁶ Congressional Budget Office. *A Detailed Description of CBO’s Cost Estimate for the Medicare Prescription Drug Benefit*. Congressional Budget Office, 2004. p. 5.

⁵⁷ Ibid. p. 29.

⁵⁸ 70 *Federal Register*: 4718, January 28, 2005. §422.66.

⁵⁹ Congressional Budget Office. *A Detailed Description of CBO’s Cost Estimate for the Medicare Prescription Drug Benefit*. Congressional Budget Office, 2004. p. 24.

⁶⁰ Kaiser Family Foundation. *Estimates of Medicare Beneficiaries’ Out-of-Pocket Drug Spending in 2006*. November 2004. p. 26.

groups by their expected drug spending into five quintiles, placing those beneficiaries with the highest 2005 drug spending in the highest quintile.

Characteristics of the three beneficiary subpopulation groups are shown in Figure 6. The non-low-income group is the largest, with 10 million beneficiaries. Of those, 7.3 million currently have no prescription drug coverage. Those with prescription drug coverage have higher drug spending than those without prescription drug coverage. The dropped retirees are the smallest group, with 2.7 million beneficiaries, but they have the highest average spending on prescription drugs of the three subpopulations. Low-income beneficiaries comprise 4.5 million beneficiaries. Nearly three-quarters of those beneficiaries also currently lack prescription drug coverage.

Figure 6: Total Population and Average Prescription Drug Spending Per Beneficiary for Categories of Beneficiaries Whose Enrollment in the Medicare Drug Benefit Varies in Enrollment Scenarios

Beneficiary Category	Drug Coverage Status	Total Beneficiaries (Millions)	Average Prescription Drug Spending Per Beneficiary
Low-Income		4.5	\$2,301
	With Current Drug Coverage	1.1	\$3,222
	Without Current Drug Coverage	3.4	\$1,999
Dropped Retirees		2.7	\$3,803
Non-Low-Income		10.0	\$2,145
	With Current Drug Coverage	2.7	\$3,045
	Without Current Drug Coverage	7.3	\$1,807
Total Enrollment		17.2	

Source: Avalere Health LLC estimates using a model developed by the Actuarial Research Corporation for the Henry J. Kaiser Family Foundation.

When all of these beneficiaries are presumed to join, the estimated average premium is lower than CBO’s estimates of the Medicare prescription drug benefit premium. This is because our 100 percent enrollment baseline scenario includes more beneficiaries than CBO’s enrollment estimates. CBO does not assume that 100 percent of Part B eligibles join a Medicare prescription drug plan, and we interpret CBO’s estimates to mean that a number of people who paid entirely out of pocket for their prescription drugs prior to the passage of MMA choose not to join a Medicare drug plan. However, these beneficiaries are included under our “100 percent enrollment” baseline scenario and when they are included, their lower-than-average spending results in a lower overall average premium for 2006 than CBO estimated (\$34.33 vs. \$36.60).

For each of the three remaining beneficiary groups, we removed the entire group from the group of total Medicare prescription drug benefit enrollees and added one spending quintile at a time, starting with the most expensive group, and estimated the average Medicare prescription drug benefit premium as each spending quintile was added to the total risk pool. This analysis produced estimates of the impact on average Medicare prescription drug benefit premiums due to

less-than-expected enrollment for each group of Medicare beneficiaries, while holding all other enrollment assumptions constant.

Again, these estimates should not be considered scenarios for actual 2006 premium amounts. Plans' approved premium amounts that were determined in the fall of 2005 will remain constant throughout the 2006 benefit year. Instead, these estimates should be considered an indication of what average premiums could be in future years as prescription drug plans submit new bids to reflect lower than expected enrollment. In addition, we calculated the percent-difference of the average premiums calculated under each scenario relative to the premium estimate calculated if all Part B beneficiaries are assumed to enroll in a Medicare prescription drug plan. CMS has released data indicating that the actual national average Medicare prescription drug benefit premium will be \$32.20 in 2006, lower than CBO's estimate of about \$37. The presented estimates are not calibrated to CMS's recent data release; however, they provide the estimated percentage increase in the average Medicare prescription drug benefit premium if enrollment is lower than expected.

Impact of Less-than-Expected Enrollment of Low-Income Beneficiaries

Our interpretation of CBO's current estimates is that virtually all Medicare beneficiaries who are eligible for the low-income subsidies, and who do not fall into a group excluded by CBO (e.g., those receiving coverage through TRICARE for Life), will enroll in a Medicare prescription drug plan (although only 60 percent of those who are eligible for the subsidy will actually receive it). There is some reason to believe that this group may not enroll in a Medicare prescription drug plan. First, beneficiaries may have a difficult time navigating the two-prong process to receive the low-income assistance. Beneficiaries may find the enrollment process too cumbersome, especially the requirement to demonstrate assets below determined levels. As evidence, many beneficiaries who are eligible for Medicare Savings Programs do not enroll; there are far more eligible than the 1.1 million enrolled today. Second, since beneficiaries with income between 135 percent and 150 percent of the federal poverty limit will have some premium requirement, some low-income Medicare beneficiaries may not be able to afford the premiums, even at the subsidized levels.

Although CMS and SSA are mounting an aggressive campaign to contact these beneficiaries, in the past these populations have been difficult to locate, as evidenced by the difficulty CMS had in contacting beneficiaries eligible for the drug discount card subsidy. Finally, the rules of the low-income subsidies require beneficiaries to enroll in certain plans with lower-than-average premiums in order to receive the low-income premium subsidies. These restrictions may make the benefit less attractive or too confusing for this population to enroll.

Figure 7 summarizes the 2006 national average Medicare prescription drug benefit premium estimates if enrollment of low-income beneficiaries is lower than currently estimated. To reiterate, the premium estimates presented below can be interpreted as what the national average 2006 premium would have been if calculated assuming only the cumulative enrollment of each quintile of low-income beneficiaries.

Figure 7: Impact of Varying Enrollment of Low-Income Beneficiaries*

Percent of Low-Income Enrolled	Number of Low-Income Enrollees (Millions)	Range of Annual Drug Spending (Low - High)**	Average Monthly Premium	Percent Increase in Premium Relative to Full Enrollment (\$34.33 premium)
100	4.5	\$0 - \$91	\$34.33	0%
80	3.6	\$92 - \$765	\$35.42	3%
60	2.7	\$766 - \$1836	\$36.50	6%
40	1.8	\$1837 - \$3846	\$37.17	8%
20	0.87	\$3,847+	\$37.42	9%

*Note: Scenario assumes full enrollment of dropped retirees and non-low-income beneficiaries.

**This column denotes the range of annual drug spending for the spending quintile of beneficiaries in each category.

Source: Avalere Health LLC estimates using a model developed by the Actuarial Research Corporation for the Henry J. Kaiser Family Foundation.

Varying the proportion of individuals who are eligible for the low-income subsidy who ultimately enroll in a Medicare prescription drug plan has a modest impact on the average Medicare prescription drug benefit premium. If only 20 percent of low-income individuals with the highest drug spending enroll (i.e., those who have annual drug spending of \$3,847 or greater), the average Medicare prescription drug benefit premium is 9 percent higher than if all low-income beneficiaries are expected to enroll.

Impact of Less-than-Expected Enrollment of Dropped Retirees

CBO estimates that all of the 2.7 million Medicare-eligible retirees whose employers decide not to take the retiree subsidy or supplement the Medicare prescription drug benefit will enroll in a Medicare prescription drug plan. This may be a reasonable assumption given that these individuals typically have generous drug coverage and would likely seek to continue coverage. Moreover, their former employers may facilitate their enrollment, helping them to identify an appropriate plan. However, some of these individuals may decide not to enroll if premiums and cost sharing are greater under the Medicare drug benefit than under their employer plan.

Figure 8 shows the 2006 national-average Medicare prescription drug benefit premium if enrollment of the estimated 2.7 million dropped retirees is less than currently estimated.

Figure 8: Impact of Varying Enrollment of Dropped Retirees*

Percent of Dropped Retirees Enrolled	Number of Dropped Retiree Enrollees (Millions)	Range of Annual Drug Spending (Low - High)**	Average Monthly Premium	Percent Increase in Premium Relative to Full Enrollment (\$34.33 premium)
100	2.7	\$0 - \$301	\$34.33	0%
80	2.1	\$302 - \$2154	\$35.00	2%
60	1.6	\$2155 - \$3594	\$35.33	3%
40	1.1	\$3595 - \$6071	\$35.42	3%
20	0.54	\$6072+	\$35.42	3%

*Note: Scenario assumes full enrollment of low income and non-low-income beneficiaries.

**This column denotes the range of annual drug spending for the spending quintile of beneficiaries in each category.

Source: Avalere Health LLC estimates using a model developed by the Actuarial Research Corporation for the Henry J. Kaiser Family Foundation.

Varying the proportion of dropped retirees who enroll in a Medicare prescription drug plan has very little impact on the national average Medicare prescription drug benefit premium. If only the 20 percent most expensive retirees are assumed to enroll (those with annual drug spending of \$6,072 or greater), the average Medicare prescription drug benefit premium is only 3 percent greater than if all beneficiaries are assumed to enroll. The differences are minimal because the population of dropped retirees is very small — each quintile only adds just under 2 percent to the total Medicare prescription drug benefit population, which is not enough to make much difference in the average Medicare prescription drug benefit premium.

Impact of Less-than-Expected Enrollment of Non-Low-Income Beneficiaries Who Currently Lack Drug Coverage

CBO estimates that a significant majority of Medicare beneficiaries who currently pay out-of-pocket for their prescription drug costs or enroll in Medigap plans which provides unsubsidized prescription drug coverage will enroll in a Medicare prescription drug plan in 2006.

Similar to other beneficiary groups, there are reasons to doubt full participation of the non-low-income group. This group may not enroll because they believe that their total out-of-pocket costs may not be reduced by the benefit. In addition to paying the monthly premium, this group will also be subject to a \$250 deductible and substantial cost-sharing for those who will have total drug spending between \$2,250 and \$5,100 in 2006 (if they choose to enroll in a plan offering the standard benefit).⁶¹ Some analysts believe that many Medicare beneficiaries may not enroll if the number of plan choices is too many to make a well-informed decision. A concern about the discount card program was whether the number of choices contributed to low enrollment. If the Medicare prescription drug benefit system is considered too complex for beneficiaries to navigate, lower-than-expected enrollment may result.

⁶¹ 70 *Federal Register*: 4535, January 28, 2005. §423.104.

Figure 9: Impact of Varying Enrollment of Non-Low-Income Beneficiaries*

Percent of Non-Low-Income	Number of Non-Low-Income Enrollees (Millions)	Range of Annual Drug Spending (Low - High)**	Average Monthly Premium	Percent Increase in Premium Relative to Full Enrollment (\$34.33 premium)
100	10.0	\$0 - \$193	\$34.33	0%
80	8.0	\$194 - \$755	\$36.83	7%
60	6.0	\$756 - \$1733	\$39.50	15%
40	4.0	\$1734 - \$3512	\$41.58	21%
20	1.98	\$3513+	\$42.58	24%

*Note: Scenario assumes full enrollment of low income beneficiaries and dropped retirees.

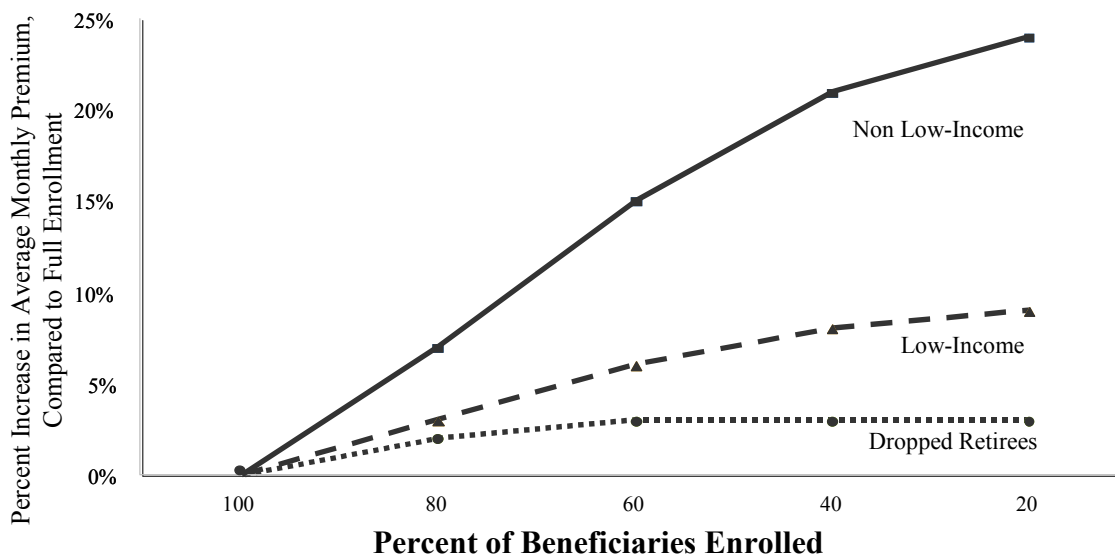
**This column denotes the range of annual drug spending for the spending quintile of beneficiaries in each category.

Source: Avalere Health LLC estimates using a model developed by the Actuarial Research Corporation for the Henry J. Kaiser Family Foundation.

Assuming complete enrollment of the low-income subsidy and dropped retiree populations, low enrollment among the non-low-income population would result in significantly higher monthly premiums in the following year. For example, if only 20 percent of those individuals enrolled in a Medicare prescription drug plan, average Medicare prescription drug benefit premiums would be 24 percent higher than they would have been if all beneficiaries enroll.

Figure 10 below displays the results of these three scenarios on a single scale, showing the percent increase in average monthly premiums relative to the monthly premium with full enrollment. While varying enrollment of low-income beneficiaries and dropped retirees has little impact on the premium, varying enrollment of the population of non-low-income has a significant impact on monthly premiums.

Figure 10. Impact of Varying Enrollment of Low Income, Non-Low-Income and Dropped Retirees on Average Monthly Premiums



Source: Avalere Health LLC estimates using a model developed by the Actuarial Research Corporation for the Henry J. Kaiser Family Foundation.

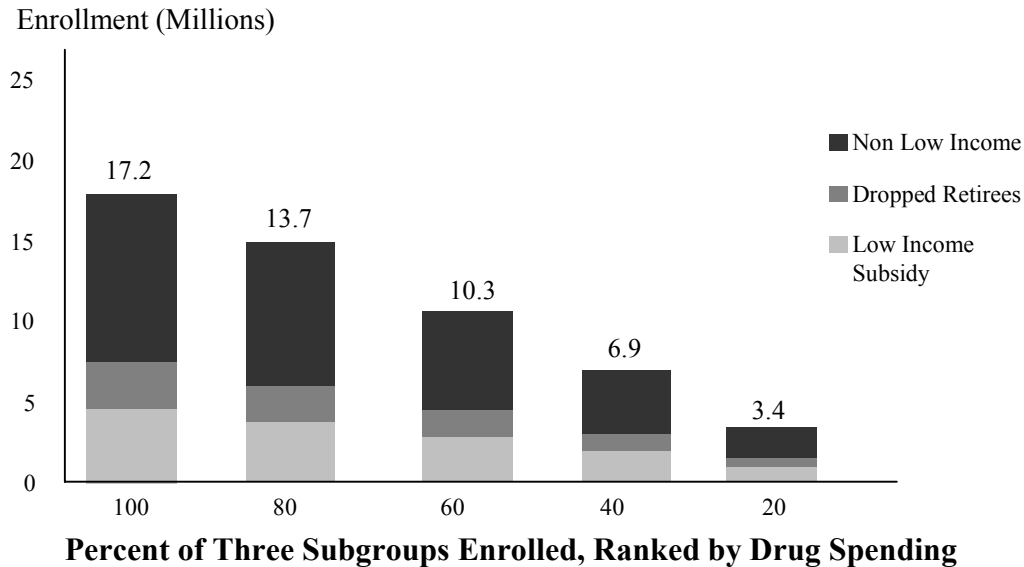
2006 Average Premium Estimates Under Five Possible Enrollment Scenarios

This section analyzes the average Medicare prescription drug benefit premium under five possible enrollment scenarios, considering enrollment of all three groups (low-income, dropped retirees, non-low-income) at the same time. In addition to the average Medicare prescription drug benefit premium it also calculates the total net federal costs of the Medicare prescription drug benefit under each enrollment scenario during calendar year 2006. Net federal outlays are defined to be basic benefit costs, low-income subsidy costs, administrative costs related to administering the basic benefit, and payments to employer plans, less premiums paid by enrollees. The calculation considers the impact on federal spending if enrollment is less than expected. The paper considers five possible enrollment scenarios (illustrated in Figure 11), using the same assumptions in the previous analyses.

1. 20 Percent Enrollment Scenario. Under this scenario, only the top 20 percent (in terms of drug spending) of low-income beneficiaries, dropped retirees, and non-low-income enroll. That is, the highest-spending quintile of each enrollment group is estimated to enroll.
2. 40 Percent Enrollment Scenario. Under this scenario, the highest-spending two quintiles of each enrollment group are estimated to enroll.
3. 60 Percent Enrollment Scenario. Under this scenario, the highest-spending three quintiles of each enrollment group are estimated to enroll.

4. 80 Percent Enrollment Scenario. Under this scenario, the highest-spending four quintiles of each enrollment group are estimated to enroll.
5. 100 Percent Enrollment Scenario. Under this scenario, all quintiles of each enrollment group are estimated to enroll.

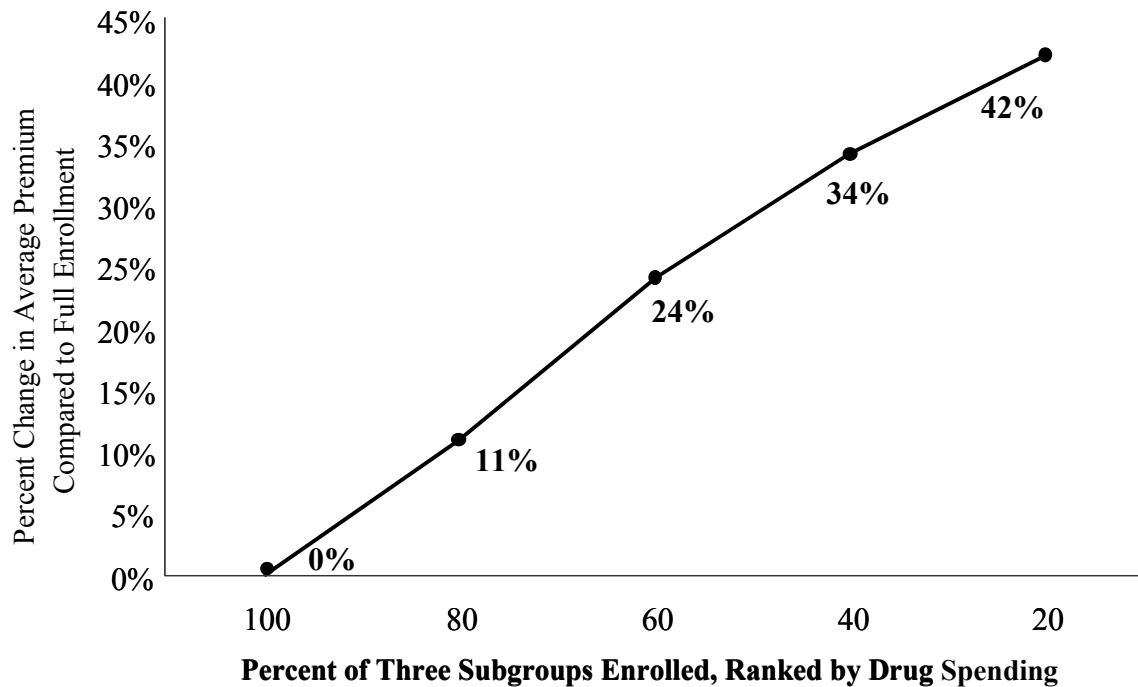
Figure 11. Enrollment of Three Subgroups Under Five Possible Scenarios*



*Note: The five enrollment scenarios assume 13.5 million beneficiaries participate including: Medicare Advantage (MA) enrollees (n=5.5 million), individuals eligible for both Medicare and Medicaid (dual eligibles) (n=6.4 million), and Medicare beneficiaries enrolled in state pharmacy assistance programs (SPAPs) (n=1.6 million).
 Source: Avalere Health LLC estimates using a model developed by the Actuarial Research Corporation for the Henry J. Kaiser Family Foundation.

As Figure 12 illustrates, average Medicare prescription drug benefit premium estimates vary significantly based on the percentage of beneficiaries that enroll. The lower the enrollment, the higher the estimated premium costs to enrolled beneficiaries. If enrollment of the three groups is limited to the 20 percent of beneficiaries who have the highest prescription drug spending, the average premium could be as much as 42 percent higher than if all beneficiaries enroll. If enrollment is limited to the 40 percent of beneficiaries who have the highest drug spending, the average Medicare prescription drug benefit premium could be 34 percent higher than if all beneficiaries enroll.

Figure 12: Percent Increase in Premiums Relative to 100 Percent Enrollment Under Five Possible Scenarios*



*Note: The five enrollment scenarios assume 13.5 million beneficiaries participate including: Medicare Advantage (MA) enrollees (n=5.5 million), individuals eligible for both Medicare and Medicaid (dual eligibles) (n=6.4 million), and Medicare beneficiaries enrolled in state pharmacy assistance programs (SPAPs) (n=1.6 million).

Source: Avalere Health LLC estimates using a model developed by the Actuarial Research Corporation for the Henry J. Kaiser Family Foundation.

Effect of Enrollment on Costs of the Medicare Prescription Drug Benefit

This analysis has focused on the impact of enrollment on the average monthly premiums paid by Medicare beneficiaries. Since beneficiaries are responsible for contributing approximately 25 percent of the revenues dedicated to the Medicare prescription drug benefit, variation in enrollment may also affect the costs to the federal government of the Medicare prescription drug benefit.

As demonstrated in Figure 13, enrollment levels do not significantly alter the overall federal cost of the Medicare prescription drug benefit, if enrollment is concentrated among beneficiaries with the highest prescription drug spending. If only the 20 percent of beneficiaries with the highest drug spending enroll, net federal costs are only 2 percent lower than if all beneficiaries are assumed to enroll. There is little difference in estimated net federal costs for the other enrollment scenarios. These relatively small differences occur because the net federal cost *per* beneficiary increases significantly, by almost 50 percent, based on enrollment. The federal government would pay \$60.4 billion in 2006 to provide coverage for 23 million beneficiaries, nearly the same costs as providing coverage to 29 million beneficiaries (\$60.6 billion) under the full enrollment scenario. However, if enrollment is lower than expected and evenly distributed

among high-spending and low-spending beneficiaries, then total federal outlays would be lower overall.

Figure 13: Estimated Federal Costs Based on Enrollment, Ranked by Drug Spending

Enrollment (Ranked by Drug Spending)	Total Federal Costs (Billions)	Enrollment (Millions)	Average Costs per Enrolled Beneficiary
100 percent	\$60.6	29.1	\$2,080
80 percent	\$60.8	26.3	\$2,311
60 percent	\$60.4	23.4	\$2,587
40 percent	\$58.5	20.4	\$2,860
20 percent	\$54.3	17.5	\$3,095

Source: Avalere Health LLC estimates using a model developed by the Actuarial Research Corporation for the Henry J. Kaiser Family Foundation.

Policy Implications

This paper assesses the impact on average monthly premiums if enrollment in Medicare prescription drug plans is lower than CBO and CMS have assumed. Below are several issues raised by this analysis that policy makers should consider as they evaluate the Medicare prescription drug benefit and strategies to encourage enrollment.

- CBO’s monthly premium estimate of about \$37 is based upon robust participation of all categories of Medicare beneficiaries, including those with low prescription drug spending. The average monthly premium for 2007 could be dramatically higher if only those beneficiaries with expected high prescription drug costs enroll in 2006.** CBO and other federal cost estimators have implicitly assumed that the prospect of a late enrollment penalty and the generous subsidy levels will encourage most Medicare beneficiaries to enroll at their earliest opportunity. However, if those assumptions prove false—whether the benefit is deemed too expensive or too complicated, or both—beneficiaries, especially those who do not qualify for full premium assistance, will face higher out-of-pocket expenses through higher premiums. These higher out-of-pocket costs may in turn deter future enrollment or cause beneficiaries to disenroll. More significantly, if enrollment is especially limited to the highest-cost beneficiaries in the early years of the benefit, the program could suffer adverse selection. Over time, if adverse selection continued to increase, the program could become unsustainable – or enter what economists term an adverse selection death spiral.
- To keep premiums affordable, enrollment of higher-income beneficiaries with low prescription drug spending is critical. The success of CMS and other stakeholders’ outreach efforts to this group will keep premiums affordable.** The population group that has the most impact on the average Medicare prescription drug benefit premium is those beneficiaries who are not eligible for the low-income subsidies and who will not be facilitated to enroll by the federal government, their MA plan, or their former employer. CMS and other agencies will have to dedicate significant resources to provide outreach and enrollment to this group. Individuals in this population category will need to understand that the Medicare prescription drug benefit will provide them benefits in

future years even if they are not expecting to need to the drug benefit in the short term – that is, that the drug benefit provides *insurance protection*, rather than just savings on prescription drug costs in the first year of enrollment. Failure to enroll this group could significantly increase premium costs over the long run.

- **Federal costs of the Medicare prescription drug benefit are largely unaffected if enrollment is limited to only the most expensive beneficiaries.** These relatively small differences result because the net federal cost per beneficiary increases significantly, by almost 50 percent, based on enrollment. Realizing this fact, policy makers should seek to enroll as many beneficiaries as possible to ensure that federal resources are used most efficiently and equitably and provide assistance to as many Medicare beneficiaries as possible. If federal costs of the program remain high but fewer than expected beneficiaries benefit, policy makers may be less willing to sustain the Medicare prescription drug benefit or invest in additional resources to improve it. As a result, Medicare beneficiaries could continue to face increasing out-of-pocket costs for their prescription drug needs.
- **If enrollment is significantly lower than expected, policy makers, Congress and CMS may need to consider policy changes to the MMA. Robust enrollment is critical to keep premium and federal costs manageable, and to keep Medicare prescription drug benefit plans participating in the program, so as not to cause disruptions for enrolled beneficiaries.** If enrollment is lower than expected, policy makers may need to consider suspending the late enrollment premium penalty for an extended period of time, thereby creating an additional “grace” period for beneficiaries to enroll. Conversely, policy makers could consider increasing the premium penalty to provide stronger incentives for beneficiaries to enroll. Policy makers may have to consider additional modifications to the benefit, such as increasing the overall subsidy level, increasing the number of individuals eligible for low-income assistance or moving to an opt-out enrollment process (similar to Medicare Part B) to encourage more beneficiaries to enroll.

APPENDIX

Overview of the Model

In this study, the impact of the presented enrollment assumptions on the monthly beneficiary premium was estimated using a model developed by the Actuarial Research Corporation (ARC). ARC's model incorporates information about beneficiary characteristics, including demographics and insurance coverage, which allows for analysis of variations in projected average spending and distributions of total and out-of-pocket spending by characteristic. The model incorporates detailed demographic information about Medicare beneficiaries, including their age, gender, race/ethnicity, health status, and source of prescription drug coverage.

In general, the ARC model conforms to CBO projections of total Medicare enrollment, per capita total- and out-of-pocket prescription drug spending for Medicare beneficiaries, rates of participation in Part D plans and the low-income subsidy programs, and coverage under employer/union plans.⁶² CBO projections differ somewhat from those produced by the Centers for Medicare and Medicaid Services (CMS) Office of the Actuary (OACT). The ARC model controls to CBO projections, rather than those prepared by OACT, to be consistent with spending estimates that are used by the Congress.

Data Sources and Methods

The analytic model draws on multiple sources of data and information, including the 2000 Medical Expenditure Panel Survey (MEPS), the Medicare Current Beneficiary Survey (MCBS) Cost and Use Files (1995-2000), a report from CBO explaining its methods and assumptions in estimating the cost of the Medicare prescription drug benefit,⁶³ CBO's March 2004 and 2005 Fact Sheets, CBO Letters regarding January 2005 and March 2005 updates to the Part D estimates,⁶⁴ CBO's March 2005 Analysis of the President's Budgetary Proposals for Fiscal Year 2006⁶⁵, and the 2004 and 2005 Annual Reports of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds.⁶⁶

⁶² For a comparison of CBO and OACT assumptions and projections, see Table 1.

⁶³ Congressional Budget Office. *A Detailed Description of CBO's Cost Estimate for the Medicare Prescription Drug Benefit*. Congressional Budget Office, 2004. p. 24.

⁶⁴ "Projection of Spending for the Medicare Part D Benefit", Letter to the Honorable William "Bill" M. Thomas, February 9, 2005.

"Updated Estimates of Spending for the Medicare Prescription Drug Program", Letter to the Honorable Joe Barton, March 4, 2005.

⁶⁵ Congressional Budget Office. *An Analysis of the President's Budgetary Proposals for Fiscal Year 2006*. Congressional Budget Office, March 2005.

⁶⁶ 2004 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds. Available at: <http://www.cms.hhs.gov/publications/trusteesreport/>

Baseline Population and Spending Projections

The ARC model begins with data from MEPS 2000 of Medicare beneficiaries' per capita out-of-pocket and total drug spending. Medicare+Choice enrollment for 2000 was imputed using probabilities derived from the MCBS. The MEPS spending data were then controlled to ARC's in-house baseline of Medicare drug spending by supplemental insurance type and Medicare status (aged/disabled) in the absence of the MMA. The ARC baseline uses MCBS 2000 as a starting point, corrects for underreporting of prescription drugs in the survey, and derives trends in enrollment and spending based on data from the MCBS 1995-2000, CBO Fact Sheets,⁶⁷ an analysis by ARC for the Kaiser Family Foundation in June 2003,⁶⁸ and the Boards of Trustees' 2004 and 2005 Annual Reports to estimate enrollment and total and out-of-pocket prescription drug spending in 2000-2013 in the absence of the Medicare drug law. Spending projections were performed separately by source of prescription drug coverage prior to the MMA. The baseline distributions were then modified slightly to match CBO assumptions.

The model is calibrated to produce estimates of the Part D premium that match those developed by CBO (e.g., \$36.60 per month in 2006.) To produce those estimates, the model uses CBO's 2006 enrollment projection of 42.7 million Medicare beneficiaries. It then incorporates CBO poverty distributions for the Medicaid and non-Medicaid Part B populations, and CBO assumptions about rates of low-income participation in Part D. Once populations were distributed based on income, the model controlled baseline total and out-of-pocket prescription drug spending to the CBO projections for Part D participants. Total baseline spending in the absence of the MMA for beneficiaries with employer subsidy plans was also controlled to the CBO projection. CBO did not project baseline out-of-pocket drug spending for those with employer subsidy plans, so the ARC model assumes that the share of total drug spending paid out-of-pocket by Medicare beneficiaries with employer subsidy plans, as well as those who switch from employer-sponsored plans to enroll in the Medicare prescription drug benefit, is the same as it would have been in the absence of the MMA, according to the ARC baseline. Total drug spending in the absence of the MMA for all Medicare beneficiaries, including non-Part D participants, is assumed to be consistent with CBO's January 2003 baseline projection for 2006 adjusted for inflation implicit in CBO's January 2005 estimates (\$3,177 in 2006). Total out-of-pocket drug spending by non-Part D beneficiaries was projected to 2006 using ARC's MCBS-based modeling, resulting in an overall out-of-pocket share of total drug spending of 41 percent for all Medicare beneficiaries.

⁶⁷ CBO Fact Sheets are available as "Supplemental Data on Major Entitlement Programs" from "An Analysis of the President's Budgetary Proposals for Fiscal Year 2005," accessible at <http://www.cbo.gov/showdoc.cfm?index=5151&sequence=0>; CBO 2004 Medicare and Medicaid Fact Sheets: <http://www.cbo.gov/factsheets/2004b/Medicare.pdf>; <http://www.cbo.gov/factsheets/2004b/Medicaid.pdf>

⁶⁸ Kaiser Family Foundation, "Medicare and Prescription Drug Spending Chartpack," June 2003.

Enrollment and Spending Projections Under the MMA

Once populations and baseline per capita spending amounts were established, ARC modeled spending under the MMA. The model assumes an induction factor of 0.7, meaning that for every \$1 saved by a beneficiary in out-of-pocket expenses for prescription drugs, spending on such drugs increases by \$0.70. This results in an overall increase in covered charges for Part D participants of 8.4 percent, due to increased utilization, which is consistent with CBO's "use effect."

The model also assumes an average net discount on gross drug costs of 6.5 percent for Part D participants. This net discount was based on CBO's assumptions, in the absence of the MMA and under the MMA, used to derive gross drug costs per Part D participant, including gross drug savings (the "cost management factor"). The model assumes a net discount based on the assumption that the plans in which beneficiaries were enrolled prior to participation in the Medicare prescription drug benefit had some degree of cost management. For all other beneficiaries (such as those who are projected not to participate in the drug benefit and those with employer-subsidy plans), total and out-of-pocket spending under the MMA is assumed to be the same as their baseline spending in the absence of the MMA. Additional factors affecting costs incorporated in CBO's model are assumed to be embedded in the adjustment factors used to match the CBO projections.

After applying the induction formula and net discounts described above, the model projects total and out-of-pocket per capita spending amounts under the MMA for Part D participants to be \$3,151 and \$869, respectively, for 2006 (28 percent out-of-pocket share of total). The model then controlled these amounts with multiplicative adjustment factors (0.962 for total spending and 0.908 for out-of-pocket spending) to match our estimate of CBO's implied total and out-of-pocket spending projections of \$3,033 and \$789, respectively, for 2006 (26 percent out-of-pocket share of total).



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