

**Reforming Beneficiary Cost Sharing to Improve Medicare Performance**

**Appendix 1: Data and Simulation Methods**

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## **Data and Simulation Methods**

We construct a baseline reflecting the Medicare benefit structure in 2006, and simulate the effects of several potential benefit reforms to the program on Medicare spending and beneficiary out-of-pocket spending including both beneficiary cost-sharing and premiums. The rest of this section discusses in detail the data sources, the matching algorithm, the construction of the baseline, and the simulation of policy options.

### **Data sources**

Under current Medicare, low-income beneficiaries receive subsidies for premiums and/or cost sharing through Medicaid, Medicare Savings Programs (MSP), or Medicare Part D Low-income Subsidies (LIS). Constructing the baseline and simulating the impacts of various policy options to restructure Medicare require information on healthcare expenditures, and eligibility and participation in the low-income subsidy programs. To the best of our knowledge, no single data source collects sufficiently detailed information to generate estimates for both. Both the HRS and the MCBS collect detailed information on demographics and health status. However, the MCBS lacks the detailed income and asset information required for modeling eligibility and the HRS lacks detailed information on healthcare utilization and expenditures to simulate the effects of alternative benefit design options. Our strategy is to combine these two data sources. For each respondent in the HRS, we find a statistical match from the MCBS and assign the expenditure profile of the matched MCBS respondent to the HRS respondent.

*The Health and Retirement Study*

The 2006 HRS has a sample size of 18,469 respondents and is nationally representative of the non-institutionalized population that is 53 years of age or older. The final HRS sample consists of 10,979 Medicare beneficiaries (Of the 11,576 Medicare beneficiaries in the HRS, 597 are dropped because they are out of the HRS sample frame or are missing information necessary for the analysis).

The HRS collects detailed information on various components of income and assets. The high quality income and asset data in HRS allow us to simulate the eligibility status of each HRS respondent for Medicaid, the MSPs, and the LIS.<sup>1</sup> The need to simulate eligibility based in reported income and assets is the primary reason that we use the HRS in this study. This allows us to be confident that beneficiary cost sharing rules are applied correctly in our Medicare reform simulation model.

The HRS also provides detailed information on demographics, health status, and health insurance coverage. Demographics include age, gender, education, race and ethnicity, region and community type (living in a metropolitan area or not). Health measures include self-reported health (excellent, very good, good, fair and poor), functional status and chronic conditions (hypertension, heart disease, diabetes, cancer, lung disease and stroke). Functional status is measured by limitations in Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs). Health insurance coverage includes self-reported coverage by Medicare, Medicaid, employer-sponsored coverage, self-purchased coverage and TRICARE (for active duty military personnel and their dependents). Respondents also report whether they were in a Medicare or Medicaid managed care plan and whether they signed up for Medicare Part D prescription drug coverage.

### *Medicare Current Beneficiary Survey (MCBS)*

The 2004 MCBS is a nationally representative sample of aged, disabled and institutionalized Medicare beneficiaries. The MCBS contains comprehensive self-reported information on health status, health care use and spending, health insurance coverage, and socioeconomic and demographic characteristics of the entire spectrum of Medicare beneficiaries. To align with the HRS sample frame, beneficiaries residing in nursing homes, those less than 53 years of age and those with missing information for key variables are dropped before the match with HRS. The MCBS sample consists of 9,638 beneficiaries (1,413 beneficiaries were younger than 53 years of age, 941 beneficiaries were in nursing homes and 87 beneficiaries had missing information).

MCBS collects similar information on demographics and health status as HRS, including age, gender, education, race and ethnicity, region, community type (living in a metropolitan area or not), self-reported health (excellent, very good, good, fair and poor), functional status (ADLs and IADLs) and chronic conditions (hypertension, heart disease, diabetes, cancer, lung disease and stroke). Medicare and Medicaid coverage are based on administrative records. In addition, up to five plans are reported based on questions about plan type (private employer-sponsored, Medigap, private unknown, private or Medicare managed care) and prescription drug benefit.

Health care spending in MCBS includes both public program spending, beneficiary out-of-pocket spending and spending by supplemental coverage, and consists of healthcare spending on dental, inpatient, outpatient, physician, pharmaceutical, facility, home care and hospice care. The spending data are based on Medicare claims linked to the MCBS, combined with respondent self-reports. For services covered by Medicare, the data captures both the spending by Medicare,

other payers including Medicaid, and beneficiaries. Spending for non-Medicare services is based on self-reports and is thus potentially subject to under-reporting.

The MCBS event files are based on both Medicare claims data and self-reported medical events. Each event represents a medical episode and is grouped into one of the nine types of health care services: inpatient care, outpatient care, medical provider, prescription drugs, home health, hospice, dental care, facility (long term care), and institutional care (mostly skilled nursing facility). Each event includes total expenditures, Medicare covered amount including cost sharing, and sources of payment (Medicaid, Medicare, Medicare HMO, private HMO, VA, employer-sponsored coverage, individually purchased coverage, private unknown coverage, beneficiary out-of-pocket, uncollected liability, and other payers).

### **Matching MCBS to HRS**

To analyze alternative benefit options, we need to be able to simulate eligibility for and participation in the MSPs and Part D low-income subsidy programs and have a complete utilization and expenditure profile. The fact that MCBS and HRS collect similar information on demographics and health status allows us to match HRS respondents with MCBS respondents according to these characteristics. The goal is to obtain an MCBS expenditure profile for each HRS respondent so that we can simulate the effects of various benefit options using the HRS sample. Our matching procedure is based on linking MCBS expenditure profiles to HRS respondents on the basis of predicted expenditures. Because of the potential importance of supplemental insurance coverage, age and gender in determining Medicare spending, we created a matching algorithm that assured exact matches with respect to these three variables.

First, we used the MCBS sample to estimate a regression of total health care spending on demographics, health status and supplemental insurance coverage. Using the parameter estimates from this model, we then predicted total health care spending for each member of the HRS and MCBS samples based on their characteristics. The independent variables common to both the MCBS and the HRS included age group, gender, race/ethnicity, education, region, urban/rural, supplemental coverage, self-reported health status, disability, chronic conditions (hypertension, cancer, heart disease, lung disease, diabetes, and stroke) and number of chronic conditions. Supplemental insurance was defined hierarchically with the following categories: current employer-sponsored insurance (ESI) coverage, Medicaid coverage, retiree ESI coverage (also including private managed care, other private coverage and TRICARE), Medicare managed care, Medigap coverage, and no supplemental coverage.

Second, we divided the MCBS and the HRS respondents into cells defined by age group, gender and supplemental insurance status. We did not go beyond these three variables because the cell sizes would have been too small to produce a credible ranking of predicted expenditures within each cell.

Third, within each cell respondents in each survey were sorted by predicted total expenditures, and grouped into sub-cells with approximately 5 observations. Each HRS respondent was then assigned a match by randomly selecting an MCBS beneficiary from a sub-cell with the corresponding rank. This resulted in beneficiaries with the highest predicted expenditures in the HRS being matched with beneficiaries with the highest predicted expenditures in the MCBS, although the actual levels of their predicted expenditures could differ. The reason is that, although the two surveys have similar variables on demographics and health status, the distributions of some of the variables are not the same. This may result from the

way questions are phrased, and the fact that our MCBS data are from 2004 and our HRS data are from 2006. Among the non-institutionalized population, MCBS respondents are more likely to report excellent health and less likely to report fair or poor health (Appendix Table 1). However, this method assumes that even if levels of certain demographic and health variables are reported differently in the two surveys, the rankings among survey respondents are preserved.

Finally, the entire expenditure profiles (medical event records) of the matched MCBS respondents were assigned to the corresponding HRS respondents. As a result, we have both eligibility status and detailed health care spending for each individual in the matched sample.

To validate the quality of the matching algorithm, we compared mean spending by supplemental insurance status between the matched HRS/MCBS sample (weighted using HRS weights) and the MCBS sample (weighted with MCBS weights). We found that the levels of spending by supplemental insurance status are similar between the two samples (Appendix Table 2). The health care expenditures were somewhat higher in the MCBS primarily due to the difference in the distribution of supplemental coverage: more beneficiaries in MCBS had Medicaid or Medigap and fewer beneficiaries had Medicare HMO or no supplemental coverage (Appendix Table 1). The average health care spending in the MCBS was \$9,855. However, if the distribution of supplemental coverage in MCBS were the same as in the matched HRS-MCBS sample, the average spending would be \$9,337, almost identical to the average spending of \$9,373 in the matched HRS-MCBS sample.

### **Constructing the baseline**

The matched HRS-MCBS data contain eligibility information on low-income subsidy programs at the beneficiary level and healthcare utilization and expenditures at medical event level.

Several adjustments were made to the matched data to further reflect the reality in 2006, including determining participation in low-income subsidy programs, determining prescription drug coverage and spending under Part D, which was not established in 2004 (the source year for the MCBS), and computing Medigap premiums and retirees' share of premiums for employer-sponsored coverage.

### *Eligibility and participation*

Since the HRS does not have explicit information on program participation in low-income subsidy programs, we considered respondents' self-reported Medicaid status and auto-enrollment in Medicare Part D as positive indicators of participation. Knowing each beneficiary's status with respect to the low-income subsidy programs is important because this affects premium payments and cost sharing requirements. For beneficiaries who did not report Medicaid status or Part D auto-enrollment, we simulated eligibility for the MSPs or Part D LIS. We then randomly selected a sufficient number of these simulated eligible respondents and assigned them to an MSP or Part D LIS in order to match participation estimates for these programs from the literature (Sears 2001; Kaiser 2006<sup>2</sup>).

There are several potential reasons why simulated Medicaid eligibility may not be consistent with self-reported Medicaid participation status in HRS: (1) as has been demonstrated, many eligible beneficiaries do not participate; (2) Medicaid and MSP eligibility are determined on a monthly basis while they are determined on an annual basis in the simulation; (3) the simulation model does not take into account the full details of the eligibility rules; (4) the implementation of the rules could deviate from the actual rules; (5) either income/asset or Medicaid coverage could be misreported. Those who reportedly enrolled in Medicaid were assumed to be eligible for

either Medicaid or the Qualified Medicare Beneficiaries (QMB) program, under which the state pays the Medicare Part B premium and Part A and Part B deductibles. For those who reportedly were auto-enrolled in Medicare Part D, but were ineligible from the eligibility simulation, we assigned them to eligibility status of Specified Low-Income Medicare Beneficiary (SLMB) or Qualified Individual (QI) program, under which the state pays the Medicare Part B premium only, Full Part D LIS, or Partial Part D LIS.

Additional eligible beneficiaries who reportedly signed up for Medicare Part D but were not auto-enrolled were randomly assigned to participate in SLMB, QI, Full Part D LIS and Partial Part D LIS. Sears (2001) suggests that the participation rates for QMB and SLMB are around 60 percent.<sup>3</sup> The Centers for Medicare and Medicaid Services (CMS) estimated that 7.3 million beneficiaries were full/partial dual eligibles and Supplemental Security Income (SSI) recipients automatically receiving low-income subsidies for Part D and 1.7 million applied for and received low-income subsidies, which implies a participation rate of 68 percent for Part D low-income subsidies (Kaiser 2006). The resulting participation rates are shown in Appendix Table 3. Among the 38.3 million non-institutionalized Medicare beneficiaries who were 53 years of age or older in 2006, 10.9 million were eligible for and 6.4 million received some form of low-income subsidies. The participation rates range from 70 percent for Medicaid to 45 percent for Part D partial low-income subsidies.

Beneficiaries who participate in any of the MSPs would receive either fully or partially subsidized Part D benefits. Beneficiaries were assigned employer-sponsored drug coverage if the MCBS data that was matched to the HRS respondent indicated employer-sponsored drug coverage. Other sources of drug coverage include drug coverage from managed care plans, TRICARE drug coverage and other private drug coverage. We assume Medigap prescription

drug coverage was no longer available. We also assigned additional beneficiaries who did not have prescription drug coverage to stand-alone Part D to match the distribution of prescription drug coverage from the 2006 MCBS Access to Care files (Kaiser 2008<sup>4</sup>). Appendix Table 4 shows the sources of prescription drug coverage for the entire sample and for beneficiaries who were below 200 percent of poverty line and did not receive low-income subsidies. Eleven percent of Medicare beneficiaries did not have prescription drug coverage and 21 percent of low-income beneficiaries who did not receive low-income subsidies did not have prescription drug coverage in 2006.

#### *Medicare Part D*

Medicare did not cover prescription drugs in 2004. Therefore, our baseline simulation estimated cost sharing as if the 2006 Part D benefit was in place by applying the Medicare Part D premium and cost sharing rules to the self-reported prescription drug events from the MCBS. However, we did not model potential demand responses to changes in cost sharing due to Part D.

Beneficiaries with full Medicaid benefits in nursing homes paid no premium and had zero cost sharing, but these people are not represented in the HRS sample. Beneficiaries with full Medicaid benefits not in nursing homes paid no premiums, \$1-2 for generic drugs and \$3-5 for brand-name drugs, and had zero cost sharing after total covered drug spending reached \$5,100. Other beneficiaries with full Part D subsidies paid no premiums, \$2 for generic drugs and \$5 for brand-name drugs (approximated in our model by applying a 5 percent coinsurance rate) before total covered drug spending reached \$5,100 and had zero cost sharing after; beneficiaries with partial Part D subsidies paid premiums according to a sliding scale, had a \$50 deductible and 15 percent coinsurance before total covered drug spending reached \$5,100, and paid \$2 for generic

drugs and \$5 for brand-name drugs after (approximated in our model by applying a 5 percent coinsurance rate); beneficiaries without subsidies paid, on average, a \$32.20 monthly premium, with (in the standard plan) a \$250 deductible, 25 percent coinsurance between \$250 and \$2,250 of total covered drug spending, 100 percent coinsurance between \$2,250 and \$5,100 of total covered drug spending, and 5 percent coinsurance after.

For beneficiaries with employer-sponsored drug coverage, Medicare provided a subsidy of 28 percent of drug spending between \$250 and \$5,000 of total covered drug spending.

#### *Premiums for employer-sponsored coverage and Medigap*

For beneficiaries with supplemental coverage, changes in Medicare benefits affect beneficiary out-of-pocket spending not only through beneficiary cost-sharing, but also through premiums for supplemental coverage. We assumed that premiums for employer-sponsored plans and Medigap plans were actuarially fair and constructed the premiums based on average spending by region.<sup>5</sup> We used a 10 percent loading factor for employer-sponsored plans and assumed beneficiaries would pay 20 percent<sup>6</sup> of the total premium (Kahn et al. 2005; Maxwell et al. 2002). Since average payments from ESI supplemental coverage were \$2,073, the full premium is calculated as about \$2,280 (10 percent above the payments) and the employee share of ESI supplemental coverage is \$456 (20 percent of the full premium). The \$252 average reported in Table 2 in the main paper is lower because only 55 percent of the sample has ESI supplemental coverage.

The loading for Medigap plans was assumed to be 25 percent. Since average payments from private Medigap was \$1,101, the full premium is calculated as about \$1,377 (25 percent above the payments). Our simulated Medigap premiums reflect only Medicare-covered services and, therefore, are somewhat lower (simulated at a \$1,377 average) than the market premiums. In

2004, the average premium for a 65-year-old female for Plan F (the most popular Medigap plan) was \$1,710.<sup>7</sup> The \$288 average reported in Table 2 in the main paper is lower than the full Medigap premium because only 21 percent of the sample reports purchasing private Medigap coverage.

### **Simulating policy options**

With a baseline reflecting Medicare benefits in place in 2006, we applied the cost-sharing rules of alternative benefit structures to the expenditure profiles in the baseline to simulate their impacts on Medicare spending and beneficiary out-of-pocket spending.

All estimates were adjusted to 2006 dollars using the Consumer Price Index (CPI). Total spending for Medicare covered services, including prescription drugs, stayed the same across policy options because we did not model demand responses to changes in cost sharing. Each simulation shows how Medicare spending, beneficiary cost sharing and other sources of spending would be altered by a different Medicare benefit structure. Note that beneficiaries with employer-sponsored supplemental coverage could also have other sources of spending because of multiple sources of coverage, including partial-year private Medigap coverage. Similarly mixed coverage may exist for beneficiaries who currently have Medigap supplemental coverage or no supplemental coverage.

### *Study sample*

From the HRS-MCBS matched sample of 10,979, we dropped beneficiaries with Medicare as secondary payer (343 beneficiaries), beneficiaries for whom Medicaid paid part of cost sharing (Medicaid and QMB: 1,145 beneficiaries) and beneficiaries who were enrolled in Medicare

HMOs (1,722 beneficiaries). The final study sample consisted of 7,769 Medicare beneficiaries. The interaction between Medicare and Medicaid is complex and varies by state, and we also expect that restructuring Medicare would have small impacts on dual eligibles because their out-of-pocket spending burden is low (although it might affect the distribution of that burden between Medicare and Medicaid). The MCBS does not have claims data for Medicare HMO enrollees, and restructuring Part A and Part B would have no direct impact on Medicare HMO enrollees since Medicare HMOs are paid under a capitation payment system.<sup>8</sup>

#### *Payments from Supplemental Coverage*

The interaction between Medicare and supplemental insurance coverage complicates how we simulate changes in cost sharing for Medicare beneficiaries. MCBS claims data contain the sources and amount of payments by different parties in the baseline: Medicare, beneficiaries and other sources (including employer-sponsored coverage and Medigap). Each of the policy options we consider may—in fact, are designed to—affect the share of each claim that Medicare pays. However, for the remainder of each claim, the share paid by the beneficiary and the share paid by other sources is assumed to be the same in all policy options as is observed in the baseline.

#### *Employer-sponsored Drug Coverage*

For individuals with employer-sponsored drug coverage, we assumed that drug spending paid by either the beneficiary or the plan counts toward the new aggregate Medicare stop-loss limit, but is not otherwise covered by Medicare. The timing of drug events for these beneficiaries matters, because it will determine whether or not the associated expenses occur before or after the stop-loss limit is reached. For example, an individual who had no prescription drug costs until after

they reached the aggregate Medicare stop-loss limit would have no out-of-pocket drug costs, nor would their employer-sponsored plan have any responsibilities, while an individual with the same total prescription drug costs prior to reaching the stop-loss limit would be subject to the full co-insurance payments for those drugs and their plan would have to pay its share. Since we do not have dates when prescription drugs were filled in the 2004 MCBS and because all medical events can influence when or if a beneficiary reaches stop-loss protection, we randomly sorted all medical events (assuming medical events are randomly distributed throughout the year).

### *Example*

The example in Appendix Table 5 illustrates how the simulation model works. We list the utilization events for a Medicare beneficiary who had Medigap supplemental coverage and was enrolled in Medicare Part D but not receiving subsidies. This beneficiary had 70 medical events during the year and incurred total spending of \$39,846 for Medicare covered services. In this table, we process these claims under the baseline cost-sharing rules and then under the rules that would apply under Option 1 (for a description of Option 1, see the discussion of the individual options below).

The first panel (under the heading “All Services: Pre-Part D”) presents raw data from the MCBS for both covered and non-covered services. For example, the first event is a medical provider event with total expenditure of \$52.68, all of which was paid by Medicare. In contrast, the sixth event was a medical provider service not covered by Medicare, but reimbursed at 80 percent by another insurer, leaving the beneficiary with an out-of-pocket cost of \$12.11. More typically (as in events 2, 3, 8, 9, and 11), Medicare paid 80 percent of the Medicare-covered amount for medical provider events. For a typical inpatient event (event 30), Medicare paid the

rest of the claim after the deductible (\$876). In this example, the beneficiary's Medigap plan paid the entire deductible amount.

In the second panel (under the heading "Baseline (Covered Services)"), we modified the raw data to generate our simulation of the baseline by excluding non-covered services (like event 6) from our calculations. As an exception to this general exclusion rule, because these data predate the Part D benefit, we do retain prescription drug events as if they had been covered services even though they were not covered at the time. Under Part D, we assumed that Medicare pays zero dollars for prescription drugs before the annual deductible is met (events 4, 5, 7 and 10) and 75 percent of drug spending after the deductible is met, but before drug spending reaches the doughnut hole (event 31 and 70).

Under the baseline simulation for this individual, Medicare covered \$36,129.85, while in the actual claims experience for this individual it covered only \$35,767.58. The additional amount represents the addition of drugs to the Medicare package. This change, plus the omission in the second panel of services not covered by Medicare, accounts for the difference in the two 'Out of Pocket' cost totals.

The second panel in Appendix Table 5 simulates the processing of this beneficiary's claims under Option 1. Under this option, Medicare would have paid nothing before the deductible was met (events 1, 2, 3, 8, 9 and 11).<sup>9</sup> The combined deductible of \$500 (\$461.3 in 2004 dollars) would have been met at event 12. Total cost-sharing (out-of-pocket plus Medigap) would have reached the stop-loss limit of \$4,000 (\$3,690 in 2004 dollars) at event 30 and Medicare would have paid the entire amount for covered services thereafter. Prescription drugs would not have been subject to deductibles, and Medicare would have paid 75 percent while the beneficiary and Medigap paid 25 percent (events 4, 5, 7 and 10) before the stop-loss was reached. As with other

services, Medicare would have covered 100 percent of the drug spending for the remainder of the year.

## **Appendix Notes**

<sup>1</sup> Please see Zuckerman et al. (2009) for a detailed description of the eligibility simulation model.

<sup>2</sup> <http://www.allhealth.org/BriefingMaterials/Lowincomemedicareassistance-305.pdf>.

<sup>3</sup> The reason that we are targeting the 60 percent participation rates which are higher than some of the other estimates in the literature is that the establishment of Medicare Part D might have increased the participation in Medicare savings programs.

<sup>4</sup> <http://www.kff.org/medicare/upload/7801.pdf>.

<sup>5</sup> Medigap premiums vary substantially across markets and within market ([http://www.weissratings.com/News/Ins\\_Medigap/20050829medigap\\_rates.pdf](http://www.weissratings.com/News/Ins_Medigap/20050829medigap_rates.pdf); Maestas et al., 2009).

<sup>6</sup> Covered workers on average contribute 16 percent of the premium for singles coverage and 27 percent of the premium for family coverage, Employer Health Benefits 2006 Annual Survey, Kaiser Family foundation and Health Research and Educational Trust:  
<http://www.kff.org/insurance/7527/upload/7527.pdf>.

<sup>7</sup> [http://www.weissratings.com/News/Ins\\_Medigap/20040812medigap.htm](http://www.weissratings.com/News/Ins_Medigap/20040812medigap.htm).

<sup>8</sup> While the payments to Medicare Advantage plans would likely be affected by changes to the fee for service benefit structure, these longer run effects as well as any behavioral impacts on Medicare Advantage enrollment in the short and long run are beyond the scope of this study.

<sup>9</sup> At event 1, we assume that the beneficiary pays 78 percent of the total amount and Medigap pays the remaining 22 percent. The 78 and 22 percent are the average shares paid by the

beneficiary and supplemental coverage for amount not paid by Medicare over all medical provider events of the beneficiary because there is not enough information to derive the shares from this event alone.

**Appendix Table 1: Comparison of Selected Characteristics in HRS and MCBS Analytic Samples**

	HRS 2006	MCBS Cost and Use 2004
<b>Age</b>		
Less than 65	8.5	8.8
Age 65-75	45.1	47.6
Age 75-85	33.3	32.9
Age 85 or more	13.1	10.7
<b>Gender</b>		
Female	56.6	56.0
Male	43.4	44.0
<b>Supplemental insurance</b>		
Current ESI coverage	2.9	6.7
Medicaid	9.8	12.5
ESI or other supplemental coverage	39.6	38.6
Medicare HMO	15.8	10.2
Medigap	15.0	22.5
No supplemental coverage	17.0	9.6
<b>Self-reported health</b>		
Excellent	8.4	16.2
Very good	25.7	27.3
Good	31.4	32.4
Fair	24.0	17.1
Poor	10.5	7.1

SOURCE: 2006 Health and Retirement Study, (HRS) and 2004 Medicare Current Beneficiary Survey (MCBS)

**Appendix Table 2: Health Care Expenditures in the Matched Sample and in the MCBS, in 2004 Dollars**

	<b>Matched HRS and MCBS</b>			<b>MCBS</b>		
	<u>Total spending</u>	<u>Medicare spending</u>	<u>Beneficiary cost sharing</u>	<u>Total spending</u>	<u>Medicare spending</u>	<u>Beneficiary cost sharing</u>
<b>Overall</b>	\$9,373	\$4,871	\$1,616	\$9,855	\$5,222	\$1,583
<b>Age</b>						
Less than 65	\$12,935	\$6,352	\$2,711	\$14,042	\$6,764	\$2,172
Age 65-75	\$7,501	\$3,400	\$1,386	\$8,141	\$4,009	\$1,408
Age 75-85	\$9,874	\$5,470	\$1,565	\$10,470	\$5,862	\$1,616
Age 85 or more	\$12,229	\$7,451	\$1,829	\$12,163	\$7,399	\$1,776
<b>Gender</b>						
Female	\$9,262	\$4,754	\$1,572	\$9,669	\$5,014	\$1,627
Male	\$9,519	\$5,025	\$1,675	\$10,093	\$5,487	\$1,528
<b>Supplemental insurance</b>						
Current ESI coverage	\$8,807	\$3,077	\$1,636	\$8,643	\$2,786	\$1,562
Medicaid	\$13,431	\$9,064	\$824	\$13,319	\$8,710	\$849
ESI or other supplemental coverage	\$10,811	\$5,604	\$1,601	\$10,695	\$5,574	\$1,574
Medicare HMO	\$5,096	\$676	\$1,255	\$5,197	\$668	\$1,317
Medigap	\$9,968	\$5,874	\$1,991	\$10,092	\$5,994	\$1,961
No supplemental coverage	\$7,243	\$4,080	\$2,109	\$7,188	\$3,967	\$1,989

SOURCE: Urban Institute 2006 Medicare Benefits Simulation Model

**Appendix Table 3: Simulated Medicaid, MSP and Part D LIS eligibility and participation**

Eligibility category	Number of Eligible Beneficiaries	Number of Beneficiaries Participating	Participation Rates
Medicaid	3,712,055	2,606,375	70%
QMB	1,851,053	1,133,283	61%
SLMB	1,335,039	736,854	55%
QI	1,203,700	643,667	53%
FullRx	1,044,915	533,843	51%
PartialRx	1,691,591	753,756	45%
Ineligible	27,472,391	-	-
Total	38,310,744	6,407,778	-

SOURCE: Urban Institute 2006 Medicare Benefits Simulation Model

**Appendix Table 4: Prescription Drug Coverage, All Beneficiaries and Low Income Beneficiaries Who Did Not Receive Part D LIS**

<b><i>All Beneficiaries</i></b>		
<b>Sources of Coverage</b>	<b>Number of Beneficiaries</b>	<b>Percent</b>
No coverage	4,186,660	11
ESI drug coverage	11,602,137	30
MA drug coverage or other	6,689,570	17
Part D with LIS	6,407,778	17
Part D without LIS	9,424,599	25
<b>Total</b>	<b>38,310,744</b>	<b>100</b>
<b><i>Low Income Beneficiaries without Part D LIS</i></b>		
<b>Sources of Coverage</b>	<b>Number of Beneficiaries</b>	<b>Percent</b>
No coverage	950,718	21
ESI drug coverage	889,687	20
MA drug coverage or other	834,399	19
Part D without LIS	1,755,771	40
<b>Total</b>	<b>4,430,575</b>	<b>100</b>

SOURCE: Urban Institute 2006 Medicare Benefits Simulation Model

**Appendix Table 5: Effect of Option 1 on Claims Processing for Example Beneficiary**

Event #	Event Type	All Services: Pre-Part D					Baseline (Covered Services)			Option 1 (Covered Services)			
		Total Expenditure	Covered Amount	Medicare	Out of Pocket	Other Health Insurance	Medicare	Out of Pocket	Other Health Insurance	Medicare	Out of Pocket	Other Health Insurance	
1	Med Provider	\$ 52.68	\$ 52.68	\$ 52.68			\$ 52.68				\$ 41.21	\$ 11.47	
2	Med Provider	\$ 68.25	\$ 68.25	\$ 54.60		\$ 13.65	\$ 54.60		\$ 13.65			\$ 68.25	
3	Med Provider	\$ 53.10	\$ 46.17	\$ 36.94		\$ 16.16	\$ 36.94		\$ 9.23			\$ 46.17	
4	Prescription	\$ 31.14	-	-	\$ 3.53	\$ 27.61	-	\$ 3.53	\$ 27.61		\$ 23.36	\$ 0.88	\$ 6.90
5	Prescription	\$ 37.89	-	-	\$ 37.89		-	\$ 37.89		\$ 28.42	\$ 9.47		
6	Med Provider	\$ 62.01	-	-	\$ 12.11	\$ 49.90	-	-					
7	Prescription	\$ 12.30	-	-	\$ 12.30		-	\$ 12.30		\$ 9.23	\$ 3.07		
8	Med Provider	\$ 11.65	\$ 11.65	\$ 9.32		\$ 2.33	\$ 9.32		\$ 2.33			\$ 11.65	
9	Med Provider	\$ 187.04	\$ 187.04	\$ 149.63		\$ 37.41	\$ 149.63		\$ 37.41			\$ 187.04	
10	Prescription	\$ 46.29	-	-	\$ 46.29		-	\$ 46.29		\$ 34.72	\$ 11.57		
11	Med Provider	\$ 52.35	\$ 52.35	\$ 41.88		\$ 10.47	\$ 41.88		\$ 10.47			\$ 52.35	
12	Outpatient	\$ 533.53	\$ 533.53	\$ 273.16		\$ 260.37	\$ 273.16		\$ 260.37	\$ 441.37		\$ 92.16	
30	Inpatient	\$ 27,746.99	\$ 27,746.99	\$ 26,870.99		\$ 876.00	\$ 26,870.99		\$ 876.00	\$ 25,361.12		\$ 2,385.87	
31	Prescription	\$ 17.09	-	-	\$ 17.09		\$ 12.82	\$ 4.27		\$ 17.09			
70	Prescription	\$ 12.30	-	-	\$ 12.30		\$ 9.23	\$ 3.08		\$ 12.30			
<b>Total</b>	<b>-</b>	<b>\$ 56,509.27</b>	<b>\$ 39,845.70</b>	<b>\$ 35,767.58</b>	<b>\$ 15,393.99</b>	<b>\$ 5,347.70</b>	<b>\$ 36,129.85</b>	<b>\$ 1,518.68</b>	<b>\$ 2,197.17</b>	<b>\$ 36,155.68</b>	<b>\$ 662.32</b>	<b>\$ 3,027.70</b>	

SOURCE: Urban Institute 2006 Medicare Benefits Simulation Model