

Savings From Drug Discount Cards: Relief For Medicare Beneficiaries?

Discount card savings will not completely alleviate the burden of drug spending for heavy users of medications.

by **Juliette Cubanski, Richard G. Frank, and Arnold M. Epstein**

ABSTRACT: Beginning in mid-2004, Medicare beneficiaries can enroll in prescription drug discount card programs approved by the federal government. We estimate modest savings for beneficiaries without drug coverage from existing drug discount card programs, with average savings of 17.4 percent over current retail prices. Although estimated percentage savings are greater on generics than brand-name drugs, estimated absolute dollar savings are greater for brands. Medicare-approved discount card savings for individual beneficiaries will depend on current out-of-pocket drug spending, the number and types of drugs used, and specific card program features. Aggregate savings estimates vary widely, based on uncertainty in discounts and program participation rates.

HIGH OUT-OF-POCKET prescription drug spending by Medicare beneficiaries without drug coverage has been a long-standing policy concern. Approximately one-quarter of beneficiaries pay for drugs entirely out of pocket for the entire year, and a larger proportion for part of the year.¹ Beneficiaries without drug coverage spend more out of pocket and fill fewer prescriptions than their peers with drug coverage.² They also face the highest retail drug prices.³

The Medicare Prescription Drug, Improvement, and Modernization Act (MMA) of 2003 (P.L. 108-173) establishes a Medicare Prescription Drug Discount Card and Transitional Assistance Program to provide temporary assistance to beneficiaries with prescription drug costs before Medicare-sponsored drug coverage begins in 2006.⁴ Discount cards may offer consumers lower drug prices by reducing pharmacy dispensing fees, using less costly outlets such as the Internet and mail order, and negotiating discounts from pharmacies and drug makers.

Beginning in mid-2004, beneficiaries can enroll in federally approved, voluntary prescription drug discount card programs. Certain low-income enrollees will

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receive \$600 to use in conjunction with the discount card. The maximum allowed annual enrollment fee is \$30. Medicare's approval of discount card programs is expected to promote enrollment in approved programs and strengthen their ability to negotiate discounts. The Centers for Medicare and Medicaid Services (CMS) reported in March 2004 that twenty-eight companies have received federal approval to provide drug discount cards.⁵ The program will terminate in 2006, when full Medicare-sponsored drug coverage begins.

Perhaps the most important question about Medicare-approved drug discount cards is their ability to deliver savings to enrollees. The law does not require any minimum discount. The CMS states that use of such cards could yield savings of 10–15 percent on total drug spending and up to 25 percent on some drugs.⁶ The source of these estimates is not specified. Estimates of savings from existing discount card programs vary, because of differences in data sources and estimation methodologies.⁷ In this paper we estimate what out-of-pocket prescription drug savings might be under the Medicare-approved program for beneficiaries and subgroups of beneficiaries without drug coverage, using beneficiaries' self-reported drug spending data. We demonstrate how discount card use might differentially affect out-of-pocket spending on different types of drugs (generics and brands). Finally, we illustrate how varying assumptions about percentage discounts, based on the experience of existing programs, and levels of participation in the Medicare-approved card program affect aggregate savings estimates. Our analysis seeks to contribute to the assessment of potential impacts of the Medicare prescription drug discount card program that begins in June 2004.

Study Data And Methods

We estimated savings for beneficiaries from discount cards in three stages. First, we estimated average discounts for each of sixty-one high-volume prescription drugs (forty-nine brand-name and twelve generic) offered by seven existing card programs (Exhibit 1).⁸ We identified drugs that were market leaders in fourteen therapeutic categories in 2000 and also frequently used by the elderly in 1999 and 2000.⁹ The seven programs, none sponsored by drug companies, were chosen because they provided drug prices on the Internet and because they appear to meet most of the qualifications for Medicare approval.

We calculated the average discount for each drug by comparing the average of the seven card program prices to average retail price estimates for cash payers for each selected brand-name or generic drug. Retail prices were measured in terms of the average wholesale price (AWP).¹⁰ To derive these estimates, we reviewed the research and trade literatures on pharmaceutical retail pricing and conducted an independent analysis of retail prices offered by a sample of eight chain and independent pharmacies in Boston, Massachusetts, and Lincoln, Nebraska. Our research indicates that retail drug prices vary widely across location, time, and type of pharmacy and are generally higher than AWP for brand-name drugs and lower

EXHIBIT 1
Percentage Savings On Out-Of-Pocket Drug Spending From Discount Card Use For Medicare Beneficiaries Without Drug Coverage, By Therapeutic Category, 2000

	Average rate of savings (%)
All drugs (N = 60)	17.4
Generic (n = 11) ^a	41.1
Brand-name (n = 49)	14.0
Therapeutic category (rank ordered by rate of savings)	
Beta/alpha blockers [Coreg, Hytrin (terazosin), Tenormin (atenolol), Toprol XL]	36
Anti-anxiety [Ativan (lorazepam), Buspar (buspirone), Xanax (alprazolam)]	28
Calcium blockers [Calan, Cardizem (diltiazem), Isoptin (verapamil), Norvasc]	21
Anti-ulcerants [Aciphex, Pepcid (famotidine), Prevacid, Prilosec, Zantac (ranitidine)]	18
Bronchodilators [Combivent, Proventil (albuterol), Serevent, Ventolin]	18
Cholesterol reducers [Lipitor, Pravachol, Zocor]	17
Antidepressants [Paxil, Prozac (fluoxetine), Zoloft]	16
Antipsychotics [Clozaril, Risperdal, Seroquel, Zyprexa]	16
Anti-arthritis [Celebrex, Vioxx]	13
Oral diabetes [Actos, Avandia, Glucophage]	12
Antihypertensives [Accupril, Lotrel, Prinivil, Zestril]	11
Respiratory steroids [Advair Diskus, Flonase, Flovent, Nasonex]	11
Bone density regulators [Evista, Fosamax, Miacalcin]	11
Oral antihistamines [Allegra, Claritin, Zyrtec]	9

SOURCE: Authors' analysis of Medicare Current Beneficiary Survey (MCBS) Cost and Use file, 2000, and analysis of prices for sixty drugs (forty-nine brand-name and eleven generic drugs) from seven prescription drug discount card programs.

NOTES: Analysis includes only noninstitutionalized beneficiaries who reported no prescription drug coverage for the entire calendar year in the 2000 MCBS. N (n) is the number of drugs in our sample. Generic drug equivalents are in parentheses.

^aNo prescription drug events were reported for one generic drug in the 2000 MCBS Cost and Use file. Therefore, it was excluded from the analysis of out-of-pocket savings.

than AWP for generics.¹¹ We compiled a range of three retail price estimates for each selected brand-name drug (AWP plus 4 percent, 7 percent, and 15 percent) and two for each selected generic drug (AWP minus 14 percent and 36 percent) against which to compare average discount card prices. In our final analysis, we used AWP minus 36 percent as a lower-bound estimate of generic retail prices, along with AWP plus 7 percent as the midpoint estimate of brand-name retail prices. Finally, we calculated the average discount rate across all drugs and all programs, as well as averages for subcategories of generic and brand-name drugs.

In the second stage, we analyzed prescription drug spending and use patterns reported by Medicare beneficiaries without drug coverage, based on calendar year 2000 data from the Medicare Current Beneficiary Survey (MCBS) Cost and Use file.¹² We analyzed data for noninstitutionalized elderly and disabled beneficiaries without drug coverage for the entire year (sample N = 2,903; weighted N = 9.2 million), half of whom used at least one sample drug in 2000 (sample n = 1,526; weighted n = 4.5 million).¹³ This analysis provided a baseline for estimating

changes in out-of-pocket spending from drug discount cards.

In the third stage, we estimated expected out-of-pocket savings stemming from discount card use by beneficiaries without drug coverage. We applied our estimated average discount rate for each sample drug to out-of-pocket spending on the drug reported by noncovered beneficiaries in 2000. We then estimated average percentage and absolute savings for beneficiary subgroups, defined by sex, age, self-reported health status, metropolitan status, race/ethnicity, income, and supplemental insurance coverage. We also estimated savings for those using generic and brand-name drugs and drugs in different therapeutic categories.

We then extrapolated from our estimated rates of discount card savings on sample drugs, to estimate individual and aggregate savings on all drugs by all Medicare beneficiaries without drug coverage. To extrapolate, we applied the average percentage savings that we estimated for subgroups of noncovered sample drug users to spending on all drugs by all noncovered beneficiaries in these subgroups. For example, we found that sample low-income beneficiaries without coverage would save 17.7 percent on their out-of-pocket spending on sample drugs. To estimate savings for all noncovered low-income beneficiaries, we multiplied their out-of-pocket spending amount on all drugs by this savings estimate. Finally, we estimated a range of potential aggregate savings based on uncertainty in discounts that might be offered, the types of beneficiaries who might be most likely to participate, and the percentage of beneficiaries who might enroll.

Study Results

■ **Average savings per beneficiary in 2000.** Drug discount cards could save beneficiaries an average of 17.4 percent on their out-of-pocket spending for sample drugs (Exhibit 1). According to our analysis of 2000 MCBS data, average out-of-pocket spending on all drugs by all noncovered beneficiaries was \$672. Applying the 17.4 percent estimate of average savings on sample drugs to average out-of-pocket spending on all drugs, we estimated that average savings per beneficiary in 2000 could be \$117 (Exhibit 2). This estimate, however, does not factor in program enrollment fees or any drug utilization changes in response to reduced retail prices.

■ **Savings by type of drug.** We estimated larger discount card savings for generic drugs (41 percent) than for brand-name drugs (14 percent) (Exhibit 1). Because brand-name drugs accounted for 88 percent of out-of-pocket drug spending in 2000, however, estimated out-of-pocket dollar savings from discount cards would be largely composed of savings on brands (\$83 out of \$117) (Exhibit 3). Our estimates of average discounts by drug type across the seven card programs in our analysis are the midpoints in a wide range of available discounts. Across these programs, the average generic drug discount, compared with our retail price estimate, ranged from a low of 18.3 percent to a high of 47.2 percent, whereas discounts for brand-name drugs ranged from 9.5 percent to 17.0 percent.

■ **Savings for beneficiary subgroups.** Estimated savings for different benefi-

EXHIBIT 2
Number Of Prescriptions Filled, Out-Of-Pocket Drug Spending, And Savings From Discount Card Use For Medicare Beneficiaries Without Drug Coverage, By Demographic Characteristics, 2000

Characteristic	Average number of Rx filled	Average savings from discount card use (%)	Average out-of-pocket spending per beneficiary (\$)	Average out-of-pocket savings per beneficiary (\$)
All beneficiaries without drug coverage	20.3	17.4	671.65	116.87
Sex				
Male	17.0	17.6	533.76	93.94
Female	23.1	17.2	786.40	135.26
Age (years)				
0-44	15.6	16.2	540.69	87.59
45-64	24.0	18.3	724.85	132.65
65-69	15.1	17.2	475.54	81.79
70-74	18.9	16.7	650.29	108.60
75-79	23.0	17.9	753.23	134.83
80-84	24.5	17.2	869.50	149.55
85+	22.7	17.1	747.84	127.88
Self-reported health status				
Excellent	10.1	17.3	358.27	61.98
Very good	15.3	17.1	542.88	92.83
Good	20.2	17.2	697.01	119.89
Fair	27.9	17.7	869.67	153.93
Poor	34.0	17.6	999.47	175.91
Metropolitan status				
Nonmetro	21.8	17.3	670.25	115.95
Metro	19.5	17.4	673.24	117.14
Race				
White	20.5	17.3	697.65	120.69
Black	21.3	19.1	507.06	96.85
Other	13.7	15.6	501.56	78.24
Income				
\$10,000 or less	18.3	17.7	518.46	91.77
\$10,001-\$20,000	22.3	17.5	708.62	124.01
\$20,001-\$30,000	22.7	17.4	755.08	131.38
\$30,001-\$40,000	17.1	17.2	673.34	115.81
\$40,001 or more	17.7	16.7	739.97	123.57
Supplemental insurance coverage				
Medicare risk HMO	16.0	18.4	520.19	95.71
Medicaid	24.7	17.1	668.58	114.33
Employer-sponsored	19.9	17.3	803.80	139.06
Individually purchased	22.1	17.0	798.54	135.75
All other	— ^a	— ^a	— ^a	— ^a
FFS only	17.1	18.3	468.53	85.74

SOURCE: Authors' analysis of Medicare Current Beneficiary Survey (MCBS) Cost and Use file, 2000, and analysis of prices for sixty drugs (forty-nine brand-name and eleven generic drugs) from seven prescription drug discount card programs.

NOTES: Analysis includes only noninstitutionalized beneficiaries who reported no prescription drug coverage for the entire calendar year in the 2000 MCBS. These results do not factor in the \$600 subsidy to certain low-income beneficiaries who join a Medicare-approved discount card program. HMO is health maintenance organization. FFS is fee-for-service.

^a Cell size too small for reliable estimation.

ciary subgroups varied slightly around the mean rate of 17.4 percent, based on observed differences in drug use patterns, including average number of prescriptions filled and types of drugs used (Exhibit 2). Thus, we estimated different dollar sav-

EXHIBIT 3
Out-Of-Pocket Drug Spending And Savings From Discount Card Use For Medicare Beneficiaries Without Drug Coverage, By Type Of Drug, 2000

	All drugs	Brand-name drugs	Percent of total	Generic drugs	Percent of total
Savings as percent of out-of-pocket drug spending	17.4%	14.0%		41.1%	
Total out-of-pocket spending					
On sample drugs	\$2.2 ^a	\$1.95 ^a	88%	\$268.6 ^b	12%
On all drugs	\$6.2 ^a	— ^c	— ^c	— ^c	— ^c
Average out-of-pocket spending per beneficiary on all drugs	\$672	\$591		\$81	
Average savings per beneficiary	\$117	\$ 83	72%	\$34	28%

SOURCE: Authors' analysis of Medicare Current Beneficiary Survey (MCBS) Cost and Use file, 2000, and analysis of prices for sixty drugs (forty-nine brand-name and eleven generic drugs) from seven prescription drug discount card programs.

NOTES: Analysis includes only noninstitutionalized beneficiaries who reported no prescription drug coverage for the entire calendar year in the 2000 MCBS.

^a Billions.

^b Millions.

^c Prescription drug events in the MCBS Cost and Use file are not coded by type of drug (generic or brand-name). Therefore, spending amounts could not be estimated for all drugs, only for the sample drugs. We assumed that the ratio of spending on brands to generics for all drugs was the same as for the sample drugs.

ings from discount card use for different subgroups of beneficiaries. For example, noncovered beneficiaries in poor health would save, on average, an estimated \$176 out of \$999 in out-of-pocket drug spending in 2000, compared with \$62 in estimated savings out of \$358 in spending for those in excellent health. These results are not surprising, because those who spend more generally can expect greater savings from discount cards. Savings from Medicare-approved programs might not be directly related to spending, however, since discounts likely will not be offered on all drugs.

Low-income beneficiaries without drug coverage face particular challenges affording medications. In 2000 approximately two million beneficiaries with very low incomes (\$10,000 or less) lacked drug coverage.¹⁴ We observed lower out-of-pocket drug spending among noncovered low-income beneficiaries and therefore estimated lower discount card savings for them than for noncovered beneficiaries with higher incomes (Exhibit 2). For example, compared with people whose self-reported incomes were \$40,000 or more, estimated out-of-pocket savings from discount cards were approximately 30 percent lower for low-income beneficiaries in 2000.¹⁵ Among noncovered beneficiaries, differences in out-of-pocket drug spending across income groups appear to be driven more by differences in types of drugs used than in number of prescriptions filled. Both lower-income and higher-income beneficiaries without drug coverage reported filling approximately eighteen prescriptions in 2000. Yet a higher rate of savings from discount card use—17.7 percent for the lowest-income beneficiaries versus 16.7 percent for those with incomes greater than \$40,000—suggests that low-income beneficiaries used a less costly mix of sample drugs—that is, more generic drugs and fewer high-cost brand-name drugs.

For some beneficiaries without drug coverage, out-of-pocket drug spending represents a large share of income. We estimated that discount card savings could greatly reduce this spending. On average, out-of-pocket drug spending was 5.1 percent of income for noncovered beneficiaries in 2000; their estimated average savings from discount cards would have equaled 0.9 percent of their income (Exhibit 4). Relative to income, we estimated greater savings for low-income than for higher-income beneficiaries. The lowest-income beneficiaries without drug coverage, whose out-of-pocket drug expenses were 10 percent of income in 2000, would save an average of 1.8 percent of income from discount cards. This estimate is nine times greater than income-related discount card savings for beneficiaries with incomes above \$40,000.

EXHIBIT 4
Savings On Out-Of-Pocket Drug Spending From Discount Card Use Relative To Income For Medicare Beneficiaries Without Drug Coverage, By Selected Demographic Characteristics, 2000

Characteristic	Out-of-pocket spending as percent of income	Out-of-pocket savings as percent of income
All beneficiaries without drug coverage	5.1	0.9
Age (years)		
0-64	5.8	1.1
65-74	4.2	0.7
75-84	5.4	1.0
85+	7.3	1.2
Self-reported health status		
Excellent	1.8	0.3
Very good	3.6	0.6
Good	5.9	1.1
Fair	7.0	1.3
Poor	8.0	1.4
Income		
\$10,000 or less	10.0	1.8
\$10,001-\$20,000	5.1	0.9
\$20,001-\$30,000	3.0	0.5
\$30,001-\$40,000	1.9	0.3
\$40,001 or more	1.2	0.2
Supplemental insurance coverage		
Medicare risk HMO	3.8	0.7
Medicaid	8.0	1.4
Employer-sponsored	4.0	0.7
Individually purchased	4.9	0.9
All other	— ^a	— ^a
FFS only	5.1	0.9

SOURCE: Authors' analysis of Medicare Current Beneficiary Survey (MCBS) Cost and Use file, 2000, and analysis of prices for sixty drugs (forty-nine brand-name and eleven generic drugs) from seven prescription drug discount card programs.

NOTES: Analysis includes only noninstitutionalized beneficiaries who reported no prescription drug coverage for the entire calendar year in the 2000 MCBS. HMO is health maintenance organization. FFS is fee-for-service.

^a Cell size too small for reliable estimation.

Discount card use notwithstanding, the financial burden of drug costs could remain substantial for noncovered beneficiaries who incur high out-of-pocket costs. Among beneficiaries without drug coverage who filled a prescription in 2000 (7.6 million beneficiaries, or 83 percent of noncovered beneficiaries), the highest-spending 10 percent paid \$1,874 or more out of pocket. Average out-of-pocket spending per beneficiary in this top decile was \$2,829, which was 3.5 times more than average spending by beneficiaries who filled a prescription in 2000 (\$806). Even with average savings of 17.4 percent, or \$481, the highest-spending beneficiaries without drug coverage would still face an average total drug bill of \$2,348, or 7 percent of their income.

■ **Aggregate savings for beneficiaries without drug coverage.** Total out-of-pocket drug spending by all Medicare beneficiaries without drug coverage in 2000 was \$6.2 billion. Estimating total discount card savings of \$1 billion (\$6.2 billion multiplied by the estimated 17.4 average percent savings) could overstate the actual impact, given uncertainty in discounts that will be offered and in the number and types of beneficiaries who will enroll in Medicare-approved card programs. To gauge the potential impact of these factors, we estimated aggregate savings using a range of overall discounts: the average across all programs in our analysis (17.4 percent) and the averages from programs offering the lowest (12 percent) and highest (23 percent) average discounts on our sample drugs. We then estimated individual and aggregate savings using these three discount rates for subgroups of beneficiaries who might be most likely to enroll in Medicare-approved programs, including those with low incomes and those with the highest out-of-pocket drug costs, assuming that all of these beneficiaries would enroll. Then, relaxing the assumption of full participation among these subgroups, we estimated savings for all beneficiaries without drug coverage based on three different estimates of overall participation: a 10 percent lower boundary based on a Congressional Budget Office (CBO) enrollment projection, a 75 percent upper boundary based on an estimate from the Bush administration, and a 50 percent midrange estimate.¹⁶

Not surprisingly, our results demonstrate that varying assumptions about discount rates and the number and types of beneficiaries who might enroll produce much uncertainty about the magnitude of individual and aggregate savings (Exhibit 5). Out-of-pocket dollar savings vary widely around the average 17.4 percent estimate. For example, we estimated that if 10 percent of all noncovered beneficiaries enrolled in drug card programs and received an average 12 percent discount, aggregate out-of-pocket savings would have totaled only \$74 million in 2000. On the other hand, if 75 percent of noncovered beneficiaries enrolled and received average discounts as high as 23 percent, out-of-pocket savings would have been an estimated \$1 billion. The wide range in these numbers indicates that any single estimate of the potential economic impact of the Medicare-approved discount card program is subject to substantial uncertainty, even after actual program enrollment figures are known.

**EXHIBIT 5
Individual And Aggregate Savings On Out-Of-Pocket Drug Spending From Discount Card Use For Medicare Beneficiaries Without Drug Coverage, By Variation In Percentage Savings, 2000**

	Average out-of-pocket spending per beneficiary (\$)	Savings		
		12%	17%	23%
		Average out-of-pocket savings per beneficiary (\$)		
Beneficiary without drug coverage	672	81	117	155
Low-income beneficiary ^a	518	62	92	119
Highest-spending beneficiary ^b	2,829	339	481	651
	Aggregate out-of-pocket spending (\$)	Aggregate out-of-pocket savings (\$)		
All beneficiaries without drug coverage	6.2 ^c	744 ^d	1.05 ^c	1.43 ^c
All low-income beneficiaries ^a	1.2 ^c	144 ^d	204 ^d	276 ^d
All highest-spending beneficiaries ^b	2.2 ^c	264 ^d	374 ^d	506 ^d
Participation rate				
10 percent	- ^e	74 ^d	105 ^d	143 ^d
50 percent	- ^e	372 ^d	527 ^d	713 ^d
75 percent	- ^e	558 ^d	791 ^d	1.07 ^c

SOURCE: Authors' analysis of Medicare Current Beneficiary Survey (MCBS) Cost and Use file, 2000, and analysis of prices for sixty drugs (forty-nine brand-name and eleven generic drugs) from seven prescription drug discount card programs.

NOTES: Analysis includes only noninstitutionalized beneficiaries who reported no prescription drug coverage for the entire calendar year in the 2000 MCBS.

^a Low-income is defined as self-reported annual income of \$10,000 or less.

^b Includes the 10 percent of beneficiaries who incurred more than \$1,874 in out-of-pocket prescription drug spending in 2000.

^c Billions.

^d Millions.

^e Not applicable.

Discussion

■ Implications for the Medicare Prescription Drug Discount Card Program.

Our results suggest that until Medicare Part D drug coverage begins in 2006, drug discount cards could provide modest financial relief for Medicare beneficiaries without drug coverage who face high out-of-pocket drug spending. For low-income beneficiaries, discount card savings appear less meaningful when measured in absolute dollar amounts than when measured as a percentage of their income saved. The \$600 subsidy provided to low-income beneficiaries who enroll in Medicare-approved programs will increase the savings for these beneficiaries.

As our analysis suggests, individual savings from Medicare-approved discount cards will depend on many factors, including the number, type, and duration of medications taken; initial out-of-pocket drug costs; where prescriptions are filled; discounts offered on drugs consumed; and retail or mail-order prices that would otherwise have been paid. Medicare beneficiaries can now enroll in multiple discount card programs, but as of June 2004 enrollment will be limited to one Medicare-approved program at a time.¹⁷ The CMS will provide comparative information about Medicare-approved cards to help beneficiaries identify which one

best meets their needs. Choosing optimally will require a careful assessment by all beneficiaries to estimate their potential savings. While enrollees will have one opportunity to switch programs between 2004 and 2005, drug prices offered by each program can change weekly. Thus, a beneficiary's initial optimal selection might not remain the best choice throughout the year.

Whether Medicare's endorsement and the enrollment exclusivity provision will generate larger discounts than existing programs offer or will serve primarily to increase enrollment in Medicare-approved programs without appreciably affecting price discounts is unknown at this time. Also unknown are the actual rate of savings that Medicare-approved discount cards will offer, the rate of participation in these programs, and retail drug prices beneficiaries would otherwise pay. Together, these unknowns generate wide-ranging estimates of aggregate discount card savings that could accrue to Medicare beneficiaries, as our analysis shows.

■ **Study limitations.** Our analysis has some important limitations. Our savings estimates are sensitive to the composition of the drug sample, selection of current discount card programs, and estimates of retail drug prices. Our drug sample consisted of a three-to-one ratio of brand-name to generic drugs, and some therapeutic categories contained multiple generics, whereas others had none. Therefore, our estimate of average generic savings could be less reliable than the brand-name savings estimate. Retail drug pricing involves complex negotiations among drug makers, wholesalers, purchasers, and pharmacies. A point estimate of average retail prices is subject to some uncertainty, and we cannot know how representative our estimates are of actual retail prices. Nevertheless, although we acknowledge the sensitivity of our analysis to these factors, our overall results on average discount card savings are consistent in magnitude and direction with previous estimates.¹⁸

Our savings estimates apply to beneficiaries without drug coverage, assuming that they all pay nondiscounted retail prices now. A small but unknown share already use discount cards or receive senior discounts from pharmacies. Beneficiaries were not asked about discount card use in the 2000 MCBS, although the CMS has begun probing the data to identify insurance plans that could be discount cards.¹⁹ Our retail price estimates do not factor in discounts that some pharmacies give elderly customers, since not all pharmacies in our retail price survey offered such discounts. Accounting for this would reduce our estimates of both average retail prices faced by beneficiaries and discount card savings.

Extrapolating from sample drugs to all drugs and from sample drug users to all noncovered beneficiaries allows us to illustrate the potential impact of the Medicare discount card program in various ways. However, it introduces another element of uncertainty in our analysis. We assumed that average discounts would be the same for all drugs taken by all beneficiaries in each subgroup as they were for sample drugs taken by sample beneficiaries. We cannot verify the accuracy of this assumption to assess how our estimates might be biased.

Our estimates are based on beneficiaries' out-of-pocket drug spending patterns

in 2000, although the Medicare discount card program begins in mid-2004. Thus, estimated individual and aggregate dollar savings do not reflect current or future dollar savings. Higher drug spending would affect our estimates of discount card savings in absolute dollars but not in percentages. The CMS has projected that Medicare beneficiaries without drug coverage will face, on average, \$1,400 in out-of-pocket drug costs in 2004.²⁰ Applying our estimated average discount card savings of 17.4 percent, out-of-pocket savings per beneficiary would average \$238 in 2004, compared with the \$117 in savings we estimated for 2000.

Conclusions

Our results indicate that prescription drug discount cards could modestly reduce Medicare beneficiaries' out-of-pocket drug spending before expanded Medicare drug coverage begins in 2006. However, the wide variation in individual and aggregate savings that we estimated demonstrates the uncertainty in assessing the overall value of the program to Medicare beneficiaries. Those who now lack prescription drug coverage and who incur large out-of-pocket costs likely will see some relief but still face sizable out-of-pocket costs. Moreover, discount card savings will not completely alleviate the burden of drug spending for heavy users of medication, especially higher-priced brand-name drugs. Low-income beneficiaries who use a Medicare-approved drug card, however, will almost certainly benefit, in part because of the \$600 subsidy. They also could see the largest reductions in out-of-pocket drug spending relative to their income. Further research is needed to monitor the Medicare Prescription Drug Discount Card Program and the savings that accrue to beneficiaries who enroll.

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NOTES

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7. U.S. General Accounting Office, *Prescription Drugs: Prices Available through Discount Cards and from Other Sources*, Pub. no. GAO-02-280R (Washington: GAO, 5 December 2001); C.P. Thomas et al., *PBM-Administered Prescription Drug Discount Cards: Savings for Uninsured Seniors*, 11 March 2003, sihp.brandeis.edu/News/Brandeis%20Savings%20for%20Uninsured%20Seniors%20Final4.pdf (24 March 2004); and GAO, *Prescription Drug Discount Cards: Savings Depend on Pharmacy and Type of Card Used*, Pub. no. GAO-03-912 (Washington: GAO, September 2003).
8. The programs in our analysis (and sponsoring entities) were MembeRx Choice (AARP), Prescription Plus (Care Entrée), MagnaCard (Senior Insurance Online), MHRx (MemberHealth Inc.), RxDrugCard (RxDrugCard.com), SaveWell (SaveWell), and YOURxPLAN (Medco Health).
9. National Institute for Health Care Management, *Prescription Drug Expenditures in 2001: Another Year of Escalating Costs* (Washington: NIHCM Foundation, 29 March 2002); CMS, *Medicare-Endorsed Prescription Drug Card Assistance Initiative Solicitation for Applications* (Washington: CMS, 7 January 2003), 58; and Families USA, *Bitter Pill: The Rising Prices of Prescription Drugs for Older Americans* (Washington: Families USA, June 2002).
10. Our source for AWP data was Medical Economics Staff, *Red Book* (Montvale, N.J.: Thomson Medical Economics, 2002). Existing cards often advertise savings relative to AWP, which is based on pricing data from pharmaceutical manufacturers, distributors, and other suppliers.
11. See, for example, GAO, *Prescription Drug Pricing: Implications for Retail Pharmacies*, Pub. no. GAO/T-HEHS-96-216 (Washington: GAO, 19 September 1996); ASPE, *Report to the President*; and GAO, *Prescription Drug Discount Cards*.
12. While some research suggests that self-reporting tends to underestimate drug use and spending, our analysis follows that of John Poisal and colleagues in not adjusting these figures, assuming that underreporting is randomly distributed. J.A. Poisal and L. Murray, "Growing Differences between Medicare Beneficiaries with and without Drug Coverage," *Health Affairs* 20, no. 2 (2001): 74–85. To the extent that MCBS respondents underreport drug use and spending, our savings estimates are equivalently low.
13. We used the CMS algorithm to identify sources and rates of supplemental insurance and drug coverage; *ibid.* No prescriptions were reported in the 2000 MCBS for one of the sample generic drugs. Spending on the remaining sixty sample drugs was 35 percent of all drug spending reported in 2000; 79 percent of total drug spending was for drugs in therapeutic categories that included sample drugs.
14. Median gross income for these beneficiaries was \$7,716 (versus \$20,400 for noncovered beneficiaries overall), which fell below 100 percent of the federal poverty level for an elderly person in 2000. In 2000, 100 percent of poverty was \$8,259 for an elderly individual and \$10,419 for an elderly couple.
15. Estimates do not factor in the \$600 low-income subsidy.
16. Congressional Budget Office, *Cost Estimate: H.R.1 Medicare Prescription Drug and Modernization Act of 2003 and S.1 Prescription Drug and Medicare Improvement Act of 2003*, 22 July 2003, ftp.cbo.gov/44xx/doc4438/hr1s1.pdf (8 October 2003); and CMS, "Medicare Endorsed Prescription Drug Card and Drug Discount Card Assistance Initiative; Proposed Rule," *Federal Register* 67, no. 44 (6 March 2002): 10676–10296.
17. Enrolling in multiple nonendorsed programs is permitted, although it is unclear how the availability of Medicare-approved cards will affect existing programs.
18. The GAO reported discounts of 8.2 percent for brand-name drugs and 36.8 percent for generics. GAO, *Prescription Drugs*. Cindy Parks Thomas and colleagues reported average discounts of 15 percent overall, 26 percent for generics, and 14 percent for brand-name drugs. Thomas et al., *PBM-Administered Prescription Drug Discount Cards*.
19. CMS, "An Update on the Medicare Current Beneficiary Survey" (Presentation at AcademyHealth Annual Meeting, Nashville, Tennessee, June 2003).
20. CMS, "Overview: Medicare Prescription Drug Discount Card."