Medicare Beneficiary Knowledge of and Experience with Prescription Drug Cards

Noemi V. Rudolph, M.P.H. and Sunyna S. Williams, Ph.D.

Medicare beneficiaries used prescription drug discount cards, both Medicare and non-Medicare cards, to assist them in paying for the cost of prescription drugs. This article describes the beneficiary's awareness and understanding, sources of information, and experience with drug discount cards a year prior and during the implementation of the Medicare-Approved Prescription Drug Discount Card program. Also, it explores beneficiary characteristics that contribute to card ownership and knowledge about drug discount cards. Understanding these experiences and factors can inform future outreach and education campaigns for the Medicare Drug Coverage program.

INTRODUCTION

The 2003 Medicare Prescription Drug, Improvement, and Modernization Act brought huge changes to the Medicare Program, especially in providing payment assistance for prescription drugs for the millions of Medicare beneficiaries. CMS implemented the Medicare-Approved Prescription Drug Discount Card (hereafter referred to as the Medicare drug card) and Transitional Assistance programs in June 2004 as interim programs leading to the Medicare Part D drug benefit that began in January 2006. The Transitional Assistance program offered $600 of annual Federal assistance to eligible low-income beneficiaries that could be used to pay for

the cost of drugs in addition to the discounts offered by the Medicare drug card. Although card sponsors could charge up to $30 per year for enrollment, Medicare paid for the enrollment fees for those who qualified for the $600 subsidy. People who received outpatient drug coverage from other sources such as Medicaid, TRICARE, group health insurance, or the Federal Employee Health Benefit Plans were not eligible for the Medicare drug card and/or transitional assistance.

Beneficiaries could only be enrolled in one Medicare drug card at a time. To enroll, beneficiaries had to select one Medicare drug card to apply to from a variety of offerings. Some beneficiaries found the many card offerings to be overwhelming (Hassol et al., 2006). Beneficiaries who wanted to apply for the $600 subsidy had to submit income, retirement, and health benefits information. After CMS verified the beneficiaries' eligibility and enrollment, the drug card sponsor would notify them about their application. Beneficiaries in State Pharmacy Assistance programs were automatically enrolled into a preferred drug card in some States. CMS worked with card sponsors to facilitate the enrollment of participants in the Medicare Savings program into the Medicare Drug Discount Card and Transition Assistance programs. Auto-enrollment was met with mixed reviews. While there was a relative increase in participation in the Medicare drug card and transitional assistance programs in States that participated in auto-enrollment, many beneficiaries were also unaware that they were auto-enrolled into

the program (Hassol et al., 2006). Some card sponsors felt that auto-enrollment worked well for them, while others had mixed views of this experience (Wrobel et al., 2006).

Approximately 6.6 million beneficiaries enrolled in the Medicare drug card program during the 18 months of its existence (Hassol et al., 2006). Several studies were undertaken to understand beneficiary awareness and experiences with the Medicare drug cards. Awareness of the drug card increased dramatically during the first year of the program ranging from 25 percent just before its implementation (Henry J. Kaiser Family Foundation, 2004) to as high as 75 percent for a survey taken later in the year (Ferguson, 2004). Other studies had similar findings (Hassol et al., 2006). Enrollment experiences and using the cards tended to be positive and satisfaction with the cards were also high (Fergusson, 2004; Love, 2004; Hassol et al., 2006).

This article builds on previous studies by examining beneficiary's awareness and understanding sources of information, and experience with drug discount cards. It also explores beneficiary characteristics that contribute to card ownership and knowledge about drug discount cards. It is well established in past and current literature that there are varying factors that contribute to beneficiary knowledge of the Medicare Program. Only a few have been conducted in the context of drug discount cards (McCormack et al., 2005; Hassol et al., 2006). We examined all of these areas with drug discount cards that existed in the private market and offered by a multitude of entities in 2004 as a baseline and, in the following year, looked at the same areas with the Medicare drug cards.

Although these programs were short and transitory, it is important to understand what beneficiaries knew about and experienced with drug assistance programs prior to the Medicare drug benefit in order gain an insight of their likelihood to participate in Medicare's Part D and low-income subsidy programs. The insight can assist CMS and other organizations involved in helping beneficiaries to design and target their outreach materials and education efforts, especially since confusion about the Part D and low-income subsidy programs persist in segments of the beneficiary population.

METHODS

Sample and Data Source

Data for the current study was derived from the Medicare Current Beneficiary Survey (MCBS), a nationally representative survey of approximately 16,000 Medicare beneficiaries. The samples included Medicare beneficiaries who were administered the Discount Awareness supplement (hereafter referred to as the drug card supplement) from May-August 2004 and/or the Medicare-Approved Drug Discount Card Awareness supplement (hereafter referred to as the Medicare drug card supplement) from May-August 2005. The drug card supplement asked questions about (non-Medicare) drug discount cards and the Medicare drug card supplement asked questions about the Medicare drug cards. The final sample size for the drug card supplement is 13,344 beneficiaries; 10,917 for the Medicare drug card supplement; and 7,572 for the linked dataset consisting of respondents who were in both samples. The linked dataset is possible, because the MCBS sample is a 4-year rotating panel design. About one-third of the sample is retired and replaced with new sample persons during the fall of each year.

Respondents eligible for Medicare and full Medicaid benefits were not asked the

Medicare drug card supplement questions, since they were not eligible for the drug cards. The supplements were only administered to community-dwelling beneficiaries and not those living in institutions, however, proxies were allowed.

MEASURES AND VARIABLE DEVELOPMENT

Questionnaire Item Development

Questions utilized in the drug card supplement were developed and cognitively tested by RTI International. The questions for the Medicare drug card supplement were derived from those in the drug card supplement, but changed as needed to focus on the Medicare drug cards. The Medicare drug card supplement also had questions about the $600 credit for transitional assistance. Items to measure Medicare knowledge were also used in both the drug card and Medicare drug card analyses.[1]

The demographic and insurance variables included sociodemographics (sex, income, age, race, education, and marital status), health status (self-reported and number of chronic conditions), Medicare health insurance category and drug coverage. Self-reported health status is perceived health status using a 5-point scale from poor to excellent. The chronic conditions variable is the number of the following conditions for which the respondent has ever been diagnosed (up to a total of 15): (1) hardening of the arteries, (2) high blood pressure, (3) myocardial infarction, (4) coronary heart disease, (5) other heart condition, (6) any (non-skin) cancer, (7) diabetes, (8) rheumatoid arthritis, (9) non-rheumatoid arthritis, (10) mental/psychiatric disorder, (11) osteoporosis, (12) Parkinson's disease, (13) emphysema, (14) paralysis, and (15) end-stage renal disease. The Medicare health insurance variable has the following four categories and was created from MCBS variables derived from CMS' administrative records: (1) original Medicare only, (2) original Medicare plus supplement/Tricare, (3) Medicare managed care, and (4) dually eligible beneficiaries. The drug coverage variable was created using nine self-reported survey questions that asked whether a respondent's plan(s) covered prescription drugs. Approximately 67 percent were found to have drug coverage; 6 percent had coverage from multiple sources.

Drug card variables included card ownership (non-Medicare drug card or Medicare drug cardholder versus no card), perceived drug card knowledge (5-point scale from knowing nothing to a lot), whether a beneficiary sought information about drug cards, and whether they did anything else to reduce the cost of drugs. Card ownership was measured by self-report and not administrative data. General Medicare-related program variables included understanding the Medicare Program using a 4-point scale from very difficult to very easy, perceived program knowledge using a 5-point scale from almost none of what is necessary to practically everything necessary, and whether they make their own health decisions.

The demonstrated knowledge scales included knowledge about non-Medicare and Medicare drug cards, and the Medicare Program (Medicare knowledge quiz score). The drug card knowledge scale was created from a set of eight true/false items and is the mean number of items answered correctly. Beneficiaries were asked the following types of questions:

- Whether they can get information about prescription drug discount cards

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[1] The development of the Medicare knowledge items is described in detail by Uhrig and colleagues (2002).

through the 1-800-Medicare hotline or Medicare's Web site?

- Whether prescription drug discount cards were approved by Medicare?
- Whether prescription drug cards may be accepted at all drug stores/pharmacies?
- Whether a person can have more than one prescription drug discount card?
- If the price of a drug the same when a prescription drug card is used no matter where it is purchased?
- Whether a person gets the same discount with a prescription drug discount card no matter which drug they were buying?

The Medicare drug card knowledge scale was created from a set of seven true/false questions and is the mean number of seven items answered correctly. Beneficiaries were asked similar questions as those on the drug card awareness knowledge scale, but the questions referred to the Medicare drug card accordingly. Beneficiaries were also asked the following question: Do some people who have Medicare-approved drug discount cards receive a $600 credit from Medicare to use for buying prescription drugs?

The Medicare knowledge scale is the mean number of items answered correctly in round 38 for drug card analyses or round 41 for Medicare drug card analyses of the MCBS. Questions in round 38 had 16 demonstrated Medicare knowledge items addressing various topics including Medicare information sources, features and rules of managed care plans, supplemental plans, and coverage of preventive services. Round 41 had 15 items, 11 of which were carryovers from round 38 (2 with some modifications and 4 entirely new questions including topics on the drug card and benefit).

All of the drug card and general Medicare knowledge items were examined for difficulty and reliability. Most of the items fall within the desired 0.25-0.75 difficulty. The Cronbach's (1951) alpha for the scales ranged from 0.689 - 0.83. "Don't know" answers were coded as incorrect responses.

Analyses

We computed descriptive statistics on demographics, insurance, drug card, general Medicare, knowledge variables, and other variables relating to card experiences, sources of information, reasons for no longer having a card, other drug cost-reduction strategies, and overall satisfaction. For the Medicare drug card analyses, descriptive statistics were also computed for the questions relating to the $600 transitional assistance.

Univariate and multivariate regressions predicting card ownership, and drug card and Medicare drug card knowledge were also conducted. For the comparisons among cardholders versus non-cardholders, we utilized general linear model analyses. Initially, we conducted the analyses comparing cardholders to non-cardholders (two categories), then cardholders to non-cardholders without and non-cardholders with drug coverage (three categories). The card ownership comparisons that follow, mostly involve the comparisons of the three categories. For the analyses on predicting drug card or Medicare drug card knowledge, we utilized simple linear regressions to get individual factors associated with drug card or Medicare drug card knowledge, then used backwards elimination multiple regressions to arrive at the final models. We accounted for the complex sample design in our analyses using SPSS® and SAS®.

RESULTS

Approximately 9 percent of beneficiaries had a drug discount card in 2004. In 2005, approximately 8 percent had a non-Medicare drug card, 2 percent had a Medicare drug card, and 4 percent had both. Using the linked dataset, we found that drug cardholders in 2004 compared with non-cardholders were more likely to be 2005 Medicare drug cardholders (27 versus 3 percent, respectively). In addition, those who had one type of card were significantly more likely to have the other type of card in 2005 (32 percent of drug cardholders compared with 2 percent of non-cardholders were also Medicare drug cardholders).

We subset the analysis of the linked dataset to individuals who had no drug coverage in 2004 or 2005. Because people with drug coverage are usually not potential candidates for drug cards, we wanted to see whether the Medicare drug card provided a new tool for those who had no prior coverage for prescription drugs or whether it merely provided an additional card for existing cardholders. Among those with no drug coverage in either 2004 or 2005 and no drug card in 2004, only 7 percent got a Medicare drug card in 2005. This was the group most likely to gain the most benefit from the Medicare card. Hence, the Medicare drug card was more of an additional card for existing cardholders than a new tool for those who had no prior coverage for prescription drugs.

Descriptive analyses showed that more than 60 percent perceived that they knew nothing or almost nothing about drug cards among the drug card sample. In the survey a year later, approximately 56 percent perceived that they knew nothing or almost nothing about Medicare drug cards among the Medicare drug card sample. Approximately 16-17 percent of both samples sought information about drug cards or Medicare drug cards. Those who sought information cited pharmacists the most as their source to find information about drug cards or Medicare drug cards. Other cited sources included Medicare's helpline, brochures, or pamphlets, AARP, and other senior citizen organizations.

Cardholders were asked about their experiences, including overall satisfaction, savings expectations when using their card(s), how often they used it to buy prescription drugs, how many prescription drugs it usually covers, and how easy it is to understand which pharmacies accepted it. In general, there was an upward trend for the more positive responses to these questions from 2004 to 2005, with the

Table 1

Card Holders Experiences of Non-Medicare Drug Card and the Medicare-Approved Drug Discount Card Programs, Weighted Percentages

	Cardholders	
Experience	2004 Non-Medicare Card	2005 Medicare Approved
	Percent	
Overall Satisfaction	*n*=813	*n*=534
Very Satisfied	38.4	35.0
Satisfied	47.1	42.6
Dissatisfied	10.4	16.9
Very Dissatisfied	4.2	5.6
Savings Expectation	*n*=781	*n*=434
More than Expected	25.7	36.7
As Much as Expected	48.0	36.2
Less than Expected	26.3	27.1

Refer to footnotes at the end of the table.

Card Holders Experiences of Non-Medicare Drug Card and the Medicare-Approved Drug Discount Card Programs, Weighted Percentages

	Cardholders	
	2004	2005
Experience	Non-Medicare Card	Medicare Approved
	Percent	
How Often You Use the Card to Buy Prescription Drugs?	*n*=803	*n*=455
All of the Time	68.3	77.6
Most of the Time	11.6	10.6
Some of the Time	20.1	11.9
How Many Prescription Drugs Does the Card Cover?	*n*=786	*n*=440
All	45.1	54.3
Most	16.0	22.0
Some	37.2	21.2
None	1.7	2.4
Ease of Understanding Which Pharmacies Accept the Card?	*n*=795	*n*=428
Very	44.9	53.4
Somewhat	39.5	38.3
Somewhat Difficult	12.1	7.1
Very Difficult	3.5	1.1

SOURCE: Centers for Medicare & Medicaid Services: Data from the Medicare Current Beneficiary Survey, 2004 and 2005.

Table 2

Reasons for Not Having a Non-Medicare (2004) or Medicare-Approved (2005) Card, Weighted Percentages

	2004 Non-Medicare Card[1]	2005 Medicare Approved[2]
Reason	Percent	
Already Had Prescription Coverage	35.9	34.9
Savings Amount Not Worth It	22.9	27.3
Signing Up Was too Confusing	15.9	13.1
Can't Find/Didn't Have Information	13.3	14.4
Cost to Join/Cost too Much to Join	7.7	5.5
Too Much Paperwork	5.1	4.7
Didn't Use Prescription Drugs	4.8	4.0
Card Didn't Cover Prescription Drug Used	3.9	2.6
Card Could Not Be Used at Pharmacy	3.6	1.7
Other Reason	3.1	2.5
Worried Change Medicare Benefits	1.4	0.8
Didn't Want to Give Out Personal Information	1.2	1.0

[1]*n*=3,600.

[2]*n*=1,173.

NOTE: Column totals may add to more than 100 percent because respondents can indicate as many reasons that applied.

SOURCE: Centers for Medicare & Medicaid Services: Data from the Medicare Current Beneficiary Survey, 2004 and 2005.

exception of satisfaction (Table 1). In the drug card sample, approximately 86 percent of beneficiaries were satisfied or very satisfied with their discount card. In the Medicare drug card sample, 78 percent of beneficiaries were satisfied or very satisfied with their drug card.

Non-cardholders were asked about the reasons why they did not or no longer have a drug card or a Medicare drug card (Table 2). The top two reasons were similar for both years: already had prescription drug coverage or the savings amount was not worth it. These were followed by reasons that signing up to join was too confusing and could not find/did not have the information.

Table 3

Cost-Reduction Strategies by Drug Card Status, All Respondents Except Those Who Said They Did Nothing to Reduce the Cost of Drugs, Non-Medicare (2004) and Medicare-Approved Card (2005), Weighted Percentages

Action	Non-Medicare[1]		Medicare-Approved[2]	
	Cardholder	Non-Cardholder	Cardholder	Non-Cardholder
	Percent			
Requested Generic	60.0	51.1	54.6	49.2
Got Samples from Doctor	54.1	37.6	51.6	35.2
Purchased Through Mail	12.6	19.0	10.0	25.1
Took Less Medicine	13.9	9.4	7.3	5.9
Skipped Doses	11.3	7.4	7.7	5.0
Bought Prescription Outside U.S.	8.5	4.7	6.6	5.3
Purchased Through Internet	2.9	1.9	1.5	1.5
Shared Medicine	2.4	1.6	1.0	0.9

[1]n=13,267.
[2]n=10,848.

NOTE: Column totals may add to more than 100 percent because respondents can indicate as many cost-reduction strategies that applied.

SOURCE: Centers for Medicare & Medicaid Services: Data from the Medicare Current Beneficiary Survey, 2004 and 2005.

Cardholders and non-cardholders alike were asked whether they had done anything else in the past year to reduce the cost of prescription drugs. Approximately one-half from each of the drug card and Medicare drug card samples said that they did nothing to reduce the cost of drugs. Excluding those who did nothing, the prevalent answers were: asked for generics instead of brand name drugs, got free samples from the doctor, and purchased drugs through the mail (Table 3). The results were similar between cardholders and non-cardholders.

We explored the factors that explained card ownership separately for drug cards and Medicare drug cards. Consistent in both analyses, a higher percentage of cardholders compared with non-cardholders had no other drug coverage, suggesting that cardholders sought the cards because of lack of coverage (data not shown). We subset the non-cardholder population to those with and without drug coverage. Tables 4 and 5 show the regression results for the drug card sample. Current drug cardholders compared with both categories of non-cardholders were more likely to be older seniors (age 75-84), female, White, and widowed. They were more likely to have lower income, but only compared with non-cardholders with drug coverage, and were more likely to

Table 4

Comparison of Non-Medicare Drug Cardholders Versus Non-Cardholders, Weighted Percentage: 2004[1]

Variable	Cardholder	Non-Cardholder		Chi-Square	Significance
		No Drug Coverage	Drug Coverage		
		Percent			
Age				56.797	0.000
Under 65 Years	11.0	14.7	14.3	—	—
65-74 Years	43.6	40.3	46.2	—	—
75-84 Years	36.0	33.8	31.1	—	—
85 Years or Over	9.4	11.1	8.5	—	—
Race				55.077	0.000
White	90.3	85.6	83.3	—	—
Black	7.4	10.1	10.5	—	—
Other	2.4	4.3	6.3	—	—

Refer to footnotes at the end of the table.

Variable	Cardholder	Non-Cardholder		Chi-Square	Significance
		No Drug Coverage	Drug Coverage		
		Percent			
Education				26.378	0.016
Some High School	29.1	31.2	28.4	—	—
High School Graduate	32.4	30.2	29.8	—	—
Some College	26.0	24.2	25.2	—	—
College Graduate and Beyond	12.5	14.4	16.6	—	—
Marital Status				49.663	0.000
Married	54.4	50.7	54.8	—	—
Widowed	32.7	29.8	28.2	—	—
Divorced/Separated	8.9	13.5	10.6	—	—
Never Married	4.0	6.0	6.3	—	—
Medicare Health Insurance				1,717.925	0.000
Original Medicare Only	18.2	31.2	5.5	—	—
Original Medicare and Supplemental Tricare	62.4	53.3	55.4	—	—
Medicare Managed Care	11.2	6.8	19.1	—	—
Medicare and Medicaid	8.2	8.7	20.0	—	—

[1]n=12,946.

SOURCE: Centers for Medicare & Medicaid Services: Data from the Medicare Current Beneficiary Survey, 2004 and 2005.

Table 5

Comparison of Non-Medicare Drug Cardholders Versus Non-Cardholders Without and With Drug Coverage, by Weighted Mean: 2004[1]

Variable	Cardholder	Non-Cardholder		Wald-F	Significance
		No Drug Coverage	Drug Coverage		
Female Sex	0.62_c	0.49_a	0.57_b	41.33	0.000
Income >$25,000	0.33_a	0.36_a	0.45_b	33.91	0.000
Sought Information about Drug Cards	0.43_c	0.20_b	0.12_a	207.85	0.000
Did Something Else to Reduce Cost of Drugs	0.62_b	0.51_{ab}	0.45_a	45.94	0.000
Makes Own Health Care Decisions	0.70_{ab}	0.73_b	0.68_a	8.39	0.000
Mean of 8 Drug Card Knowledge Items	0.55_b	0.44_a	0.42_a	114.75	0.000
Perceived Health Status	3.21_{ab}	3.31_b	3.20_a	7.79	0.000
Number of 15 Possible Chronic Conditions	2.82_b	2.25_a	2.69_b	70.34	0.000
Perceived Knowledge about Drug Cards	2.72_b	2.16_a	2.15_a	109.83	0.000
Understanding of Medicare Program	2.73	2.77	2.75	0.62	0.608
Global Perceived Medicare Program Knowledge	3.12	3.14	3.13	0.11	0.912
Mean of 16 Medicare Knowledge Items	0.58_b	0.52_a	0.56_b	24.89	0.000

[1]n=12,946.

NOTE: Means that share subscripts do not differ significantly at $p<0.01$.

SOURCE: Centers for Medicare & Medicaid Services: Data from the Medicare Current Beneficiary Survey, 2004 and 2005.

have more chronic conditions, but only compared with non-cardholders without drug coverage.

Medicare health insurance category had a large chi-square statistic. Cardholders were more likely to have original (fee-for-service) Medicare with a supplement compared with both categories of non-cardholders. Those with Medicare managed care and dually eligible beneficiaries were more likely to be non-cardholders with drug coverage.

Cardholders had greater perceived card knowledge and more likely to have sought information about drug cards than non-cardholders. Cardholders were more likely to have done something else to reduce the cost of drugs, but only compared with non-cardholders with drug coverage. They answered a higher proportion of the drug card knowledge quiz items correctly than non-cardholders without and with drug coverage (55 versus 44, versus 42 percent, respectively). Cardholders also answered a higher portion of the Medicare knowledge items (58 percent), but only compared with non-cardholders without drug coverage (52 percent). There were no significant differences between cardholders and non-cardholders in their understanding of Medicare and perceived Medicare knowledge.

Tables 6 and 7 show the comparisons of Medicare drug cardholders versus non-cardholders without and with drug coverage. Similar to the findings, current Medicare drug cardholders compared with both categories of non-cardholders were more likely to be older seniors (age 75-84), female, widowed, had greater perceived card knowledge about drug cards, more likely to have sought information, and answered a higher proportion of the Medicare drug card knowledge quiz items correctly. They were also more likely to have done something else to reduce the cost of drugs, but only compared with non-cardholders with drug coverage. Medicare drug cardholders also answered a higher proportion of the Medicare knowledge quiz items correctly, but only compared with non-cardholders without drug

Table 6

Comparison of Medicare-Approved Drug Cardholders Versus Non-Cardholders Without and With Drug Coverage, by Weighted Percentage: 2005[1]

Variable	Cardholder	Non-Cardholder		Chi-Square	Significance
		No Drug Coverage	Drug Coverage		
		Percent			
Age				111.544	0.000
Under 65 Years	11.2	13.7	8.0	—	—
65-74 Years	41.0	41.8	48.4	—	—
75-84 Years	35.2	34.2	34.5	—	—
85 Years or Over	12.7	10.3	9.1	—	—
Race				11.595	0.126
White	90.4	87.3	89.2	—	—
Black	7.1	9.1	7.4	—	—
Other	2.5	3.5	3.4	—	—
Education				132.606	0.000
Some High School	31.1	29.7	20.8	—	—
High school Graduate	32.0	30.4	31.8	—	—
Some College	24.7	24.2	27.7	—	—
College Graduate and Beyond	12.1	15.7	19.7	—	—
Marital Status				149.948	0.000
Married	48.2	54.1	60.6	—	—
Widowed	36.2	27.6	29.0	—	—
Divorced/Separated	11.5	13.3	7.5	—	—
Never Married	4.1	5.0	2.9	—	—
Medicare Health Insurance				1,446.29	0.000
Original Medicare Only	20.5	32.4	6.5	—	—
Original Medicare and Supplemental Tricare	57.3	56.6	68.9	—	—
Medicare Managed Care	12.3	7.5	22.1	—	—
Medicare and Medicaid	9.9	3.6	2.5	—	—

[1]n=10,848.

SOURCE: Centers for Medicare & Medicaid Services: Data from the Medicare Current Beneficiary Survey, 2004 and 2005.

Table 7

Comparison of Medicare-Approved Cardholders Versus Non-Cardholders Without and With Drug Coverage, Weighted Mean: 2005[1]

Variable	Cardholder	Non-Cardholder		Wald-F	Significance
		No Drug Coverage	Drug Coverage		
Female Sex	0.64_c	0.49_a	0.57_b	34.09	0.000
Income >$25,000	0.25_a	0.39_b	0.55_c	113.97	0.000
Sought Information about Drug Cards	0.45_c	0.20_b	0.12_a	113.76	0.000
Did Something Else to Reduce Cost of Drugs	0.62_b	$0.52_{a,b}$	0.48_a	14.13	0.000
Makes Own Health Care Decisions	0.7	0.73	0.71	2.45	0.083
Mean of 7 Medicare Drug Card Knowledge Items	0.62_b	0.51_a	0.51_a	41.02	0.000
Perceived Health Status	3.19_a	$3.33_{a,b}$	3.39_b	8.51	0.000
Number of 15 Possible Chronic Conditions	2.96_c	2.40_a	2.71_b	32.93	0.000
Perceived Knowledge about Medicare Drug Cards	3.05_b	2.36_a	2.34_a	66.14	0.000
Understanding of Medicare Program	2.81	2.76	2.82	3.74	0.014
Global Perceived Medicare Program Knowledge	3.25	3.14	3.24	6.09	0.003
Mean of 15 Medicare Knowledge Items	0.65_b	0.58_a	0.63_b	33.39	0.000

[1]n=10,848.

NOTE: Means that share subscripts do not differ significantly at $p<0.01$.

SOURCE: Centers for Medicare & Medicaid Services: Data from the Medicare Current Beneficiary Survey, 2004 and 2005.

coverage. There were no significant differences between Medicare drug cardholders compared with non-cardholders in their understanding of Medicare and perceived Medicare knowledge.

Unlike the findings from the drug card analyses, Medicare drug cardholders compared with both categories of non-cardholders were less likely to be educated (less than high school or high school graduate), married, more likely to have lower income, and have more chronic conditions. There were no significant differences between Medicare drug cardholders compared with non-cardholders in race and whether they make their own health decisions. Current Medicare drug cardholders were more likely to have Medicare and Medicaid. It is important to note that beneficiaries who had both in the Medicare drug analyses were those who had some form of assistance from the State (e.g., Medicare Savings program, State Pharmacy Assistance program), not those with full Medicaid benefits. Some of the demographic and insurance differences between the drug card and Medicare drug card dataset findings are likely due to the exclusion of dually eligible beneficiaries for the Medicare drug card supplement.

For the drug card knowledge analyses, only 3.5 percent answered all of the questions correctly; 16 percent answered none of the questions correctly. The mean number of drug card knowledge questions answered correctly was 3.5 out of 8. For the Medicare drug card knowledge analyses, approximately 6.6 percent answered all of the questions correctly; 7.3 percent answered none of the questions correctly. The mean number of Medicare drug card knowledge questions answered correctly was 3.6 out of 7.

For the drug card univariate regressions, all of the factors were significantly associated with drug card knowledge

except for the number of chronic conditions. For the multivariate regressions, Table 8 shows the final model. The following factors are associated with higher discount awareness knowledge: some college education and beyond, income >$25,000, higher perceived health status, current cardholder, higher perceived knowledge about drug cards, tried to find information about drug cards, did something to reduce the cost of drugs, and higher score on Medicare knowledge items. In contrast, the following factors are associated with lower levels of knowledge: age 65 or over,

race of Black or other, widowed, never married, beneficiaries with both Medicare and Medicaid, and female.

For the Medicare drug card univariate regressions, the following factors were not associated with card knowledge: number of chronic conditions, sex, divorced/separated, managed care, and dually eligible for Medicare and some form of Medicaid. For the backward elimination multiple regressions, we excluded sex and the number of chronic conditions in the Step 1 regression (not shown), but included marital status and Medicare insurance category

Table 8
Results of Multivariate Regression Predicting Non-Medicare Drug Card Knowledge[1]

Variable	Coefficient Estimate	p-Value
Age		
Under 65 Years	Ref	—
65-74 Years	-0.056	<0.0001
75-84 Years	-0.098	<0.0001
85 Years or Over	-0.129	<0.0001
Race		
White	Ref	—
Black	-0.041	0
Other	-0.057	<0.0001
Education		
Some High School	Ref	—
High School Graduate	0.015	0.033
Some College	0.041	<0.0001
College Graduate and Beyond	0.041	<0.0001
Marital Status		
Married	Ref	—
Widowed	-0.015	0.015
Divorced/Separated	-0.016	0.095
Never Married	-0.025	0.039
Medicare Health Insurance		
Original Medicare Only	Ref	—
Original Medicare and Supplemental Tricare	0.013	0.082
Medicare Managed Care	-0.041	0
Medicare and Medicaid	-0.03	0.003
Sex	-0.016	0.003
Income	0.023	0.001
Perceived Health Status	0.012	0
Card Ownership	0.051	<0.0001
Perceived Knowledge about Drug Cards	0.058	<0.0001
Tried to Find Information about Drug Cards	0.054	<0.0001
Did Something to Reduce Cost of Drugs	0.047	<0.0001
Mean of 16 Medicare Knowledge Items	0.313	<0.0001

[1] n=12,581.

NOTES: R^2=0.2570. Ref is reference category.

SOURCE: Centers for Medicare & Medicaid Services: Data from the Medicare Current Beneficiary Survey, 2004 and 2005.

variables, because some of the categories in these variables were significantly associated with Medicare drug card knowledge. Table 9 shows the final model. The following factors are associated with higher Medicare drug card knowledge: age 75-84, income >$25,000, current cardholder, higher perceived knowledge about drug cards, tried to find information about drug cards, did something to reduce the cost of drugs, and higher score on Medicare knowledge items. In contrast, the following factors are associated with lower levels of knowledge: age 85 or over and having drug coverage.

The Medicare drug card supplement also asked questions not asked in the drug card supplement. Cardholders were asked whether they used their card to purchase drugs in the past year. Those who answered no were asked the reasons(s) why they did not. The most predominant reasons were that they already had drug coverage (32 percent), the savings were not large enough or worth it (28.4 percent), and they used another discount card (16.9 percent) (data not shown). Approximately 78 percent of the cardholders who had other drug discount cards found it somewhat easy or very easy to understand when it is better to use the Medicare drug card or the other drug discount cards, although the sample was very small (data not shown).

The Medicare drug card supplement also asked questions about the $600 credit for transitional assistance. Cardholders were asked if they applied for the $600 credit. As shown in Table 10, approximately 65 percent said they did not and the

Table 9
Results of Multivariate Regression Predicting Medicare-Approved Card Knowledge

Variable	Coefficient Estimate	p-Value
Age		
Under 65 Years	Ref	—
65-74 Years	-0.021	0.168
75-84 Years	0.069	<0.0001
85 Years or Over	-0.097	<0.0001
Race		
White	Ref	—
Black	-0.011	0.394
Other	-0.387	0.025
Education		
Some High School	Ref	—
High school Graduate	0.016	0.064
Some College	0.024	0.014
College Graduate and Beyond	0.008	0.396
Income	0.026	0.001
Perceived Health Status	0.007	0.048
Drug Coverage	-0.026	0
Card Ownership	0.081	<0.0001
Perceived Knowledge about Drug Cards	0.049	<0.0001
Tried to Find Information about Drug Cards	0.056	<0.0001
Done Something to Reduce Cost of Drugs	0.047	<0.0001
Understanding of Medicare Program	-0.008	0.022
Mean of 15 Medicare Knowledge Items	0.445	<0.0001

NOTES: n=7060. R^2=0.2210. Ref is reference category.

SOURCE: Centers for Medicare & Medicaid Services: Data from the Medicare Current Beneficiary Survey, 2004 and 2005.

most prevalent reason cited was that they did not/not think they were eligible (60 percent). Approximately 84 percent of those who reported that they applied stated their application was approved, and 16 percent stated their application was denied (data not shown). Approximately 33 percent got the $600 credit whether or not they applied for it. Responses to the questions on transitional assistance application approval or whether or not they received the $600 credit were self-reported and not from administrative data. Ninety-five percent of those who received the $600 credit reported not having any problems making the credit work for them, although the number of respondents to this question was very small.

We also analyzed expected to realized savings and overall satisfaction relative to transitional assistance status. We used questions about the application approval or whether or not they received the $600 credit as proxies for transitional assistance status. A significantly larger number of those who had their application approved claim to have saved more than expected (62 percent) and were more satisfied (62 percent) compared with those who had

Table 10

Reasons Why Beneficiaries Did Not Apply for the $600 Subsidy Credit, by Weighted Percentage: 2005

Reason	Percent
Not Eligible/Not Think Eligible	60.5
Didn't Know How to Apply	21.9
Doesn't Need Due to Other Coverage	10.9
Didn't Understand Application Information	7.6
Automatically Enrolled by State	5.6
Not Worth the Trouble	1.9
Other	1.7

NOTES: *n*=379.Column totals may add to more than 100 percent because respondents can indicate as many cost-reduction strategies that applied.

SOURCE: Centers for Medicare & Medicaid Services: Data from the Medicare Current Beneficiary Survey, 2004 and 2005.

their's denied (14 and 12 percent, respectively) (data not shown). Similarly, a significantly larger number of those who got the $600 credit, regardless of whether or not they applied for it, claim to have saved more than expected (62 percent) and reported being very satisfied with their card (64 percent) compared with those who did not get the credit (19 and 20 percent, respectively).

DISCUSSION

Our analyses showed that beneficiary perceived knowledge was low and few sought more information about Medicare and non-Medicare drug cards. Some of the reasons why beneficiaries may not have known a lot about drug cards and did not seek more information about them may be explained by the reasons why they did not have drug cards. Already having prescription drug coverage or feeling that the amount of savings was not worth the effort may have caused them not to seek information about drug cards. Even if they tried to seek information, the amount of materials they received, the multiplicity of choices, and misperceptions of the program may have caused confusion and led many to distance themselves from the program altogether (Hassol et al., 2006).

Our study points to the need to focus on the time period prior to actually enrolling into a card program, because those who got them were very satisfied and claimed to save more than expected compared with non-cardholders. Although our study did not cover the actual enrollment process, other studies (Hassol et al., 2006) found that enrolling into a Medicare drug card was not difficult for beneficiaries. It is important to note that drug card status and transitional assistance enrollment in our study were measured by self-reported and not administrative data. We were also

unable to identify those who were auto-enrolled into a Medicare drug card among the cardholders. This might explain why we found only 6 percent reporting a Medicare drug card. Other studies found that many cardholders who responded to their surveys were unaware that they had a Medicare drug card, especially if they were auto-enrolled (Hassol et al., 2006).

Beneficiaries who had Medicare drug cards and (non-Medicaid) cards seem to have the demographics and insurance status of those who would typically benefit from the discount cards, i.e., they were more likely to be older seniors, low-income, have more chronic conditions, no drug coverage, and more motivated. Our findings are supported by other study findings (Love, 2004) that Medicare drug card-holders compared with non-cardholders were more aware of the specifics of the program and more likely to have sought information from others about the program and in their decisionmaking process. There is a possibility that the relationship between high knowledge quiz scores and drug card ownership is endogenous in that beneficiaries may gain knowledge as they use their drug card.

While the Medicare drug card and transitional assistance programs were short-lived, studies about the drug card experience highlighted the challenges of educating beneficiaries about complex program details (Hassol et al., 2006; Wrobel et al., 2006). The implications of our findings are in the areas of motivating beneficiaries to learn more about Part D and low-income subsidy programs and of how to better target education and outreach programs. The incentives to learn about Part D and to enroll may have changed due to the fact that it is an insurance coverage for drugs rather than a discount card or that it is more permanent rather than transitory like the Medicare drug cards. Indeed, recent studies have confirmed that 90 percent of eligible Medicare beneficiaries have drug coverage either by Part D enrollment or by having creditable coverage (Heiss, Mc-Fadden, and Winter, 2006) and those who have enrolled in Part D tend to be satisfied with their drug coverage (U.S. Chamber of Commerce, 2006; America's Health Insurance Plans, 2006).

However, the challenges of educating beneficiaries about the details of the programs and assisting them in the choice process continue to be ongoing issues. Hibbard, Greene, and Tusler (2006) found that understanding of the Medicare drug coverage and low-income subsidy programs was low, even with the most basic information. People who become newly eligible for Medicare and those enrolled who decide to switch to another plan will face decisions of whether to enroll and/or how to choose among the different plans (Henry J. Kaiser Family Foundation, 2006). In addition, Heiss, McFadden, and Winter (2006) also identified segments of the population who have not enrolled, but may benefit from enrollment (healthy people who have no prescriptions, those with prescriptions, but have no drug coverage), or have not enrolled in considerable amounts relative to their rate of no coverage (widowed, unmarried females, less educated). Until more data are published about beneficiary knowledge and experience with Part D, the findings from our study can be applied to the ongoing education and outreach efforts.

Our study suggests that CMS and other organizations involved with educating beneficiaries about Part D and the low-income subsidy will need to convey the amount of savings to them as a result of participating, and minimize the confusion about and increase the knowledge of program details. CMS has been engaged in educational efforts through multiple channels and

partnerships with various groups to reach specific target populations. Our study supports efforts, such as working with pharmacists and senior citizens organizations, and providing information through the 1-800-MEDICARE helpline, and Medicare brochures and pamphlets.

Our findings also point to the need for segmenting and offering targeted approaches to helping beneficiaries with the choice to enroll and increasing knowledge of the beneficiary population. We found that different beneficiary characteristics predict whether they enrolled in a drug card program and their level of knowledge. To increase knowledge, our study shows that structuring outreach and education programs according to age groups is important. In addition, providing specific information about Part D rather than lumped with other information about Medicare, capitalizing on program participants who are more knowledgeable and motivated, and increasing knowledge about the Medicare Program in general, may also be helpful in the goal of assisting beneficiaries make informed decisions about their health coverage.

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