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Policy Brief
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Comparing Rural and Urban Medicare Part D Enrollment Patterns and Prescription Drug Coverage Rates

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Key Findings

- Overall Medicare Part D enrollment rates increased from 55.5% in 2006, the first year of the program, to 61.4% in 2009. Annual increases were between 1 and 5 percentage points.
- Rural Part D enrollment rates consistently lagged behind urban rates by 2 to 4 percentage points, increasing from 53.7% in 2006 to 58.6% in 2009, compared to urban rates increasing from 56.0% to 62.3%, respectively.
- Geographic disparities in prescription coverage have greatly diminished over time: by 2009, prescription drug coverage rates topped 90% in both rural and urban areas. Rates of continuous uninsurance are approaching all-time lows of 7% in rural areas and 4% in urban areas.
- Independent of geographic location, there is strong evidence of less-healthy beneficiaries enrolling in the Part D program, and no evidence of the Part D program crowding out private prescription drug coverage.

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Background

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 facilitated prescription drug coverage for Medicare beneficiaries through the Part D program. Beginning in January 2006, Medicare beneficiaries enrolled in traditional fee-for-service Medicare could select drug coverage through a stand-alone prescription drug plan while beneficiaries in Medicare Advantage (MA) plans could select an integrated option (MA-PD).

Prior to 2006, approximately 59% of rural beneficiaries and 75% of urban beneficiaries had some type of drug coverage.[1] Rural beneficiaries were more likely to have self-purchased Medigap drug coverage while urban beneficiaries were more likely to have obtained drug coverage through their employers. With the implementation of the Part D program, Medigap prescription drug policies are being phased out and employers are receiving subsidies encouraging them to retain employee drug coverage through the Retiree Drug Subsidy program. The potential benefits of Part D enrollment include improved access to drugs, reduced out-of-pocket drug expenditures, and better health outcomes. The degree to which rural beneficiaries benefit depends on a number of factors, including their health needs, their medication needs, and what type of drug coverage they had prior to Part D enrollment, if any.

Recent studies have analyzed the availability of Part D drug plans in rural areas and the number of rural Medicare beneficiaries enrolled in stand-alone and MA plans.[2-7] The purpose of this study was to describe Medicare Part D enrollment rates in rural and urban areas and the resulting impact on rural beneficiaries' overall prescription drug coverage rates.

Approach

Data from the Medicare Current Beneficiary Survey (MCBS) 2004-09 Cost and Use (CU) files were used to examine patterns in prescription coverage across rural and urban areas 2 years pre- and post-implementation of the Part D program in 2006. Part D enrollment rates, rates of uninsurance, and the continuity of prescription drug coverage are described. The MCBS is a longitudinal panel survey of a nationally-representative sample of Medicare beneficiaries sponsored by the Centers for Medicare and Medicaid Services. The CU files contain information on panels of people who were followed throughout the year for three years; they provide an accurate assessment of Medicare beneficiaries' experiences with Part D based on changes in their prescription coverage throughout the year.

The analysis includes all Medicare beneficiaries living in the continental United States, enrolled in either Part A or B, disabled and aged, and living

either in the community or in an institution. The presence of continuous prescription drug coverage was determined on an annual basis for each of the years the respondents were observed in the MCBS files. Table statistics indicate whether or not beneficiaries were enrolled in each type of plan at any time during the year.[8]

Based on Medicare administrative data, beneficiaries were classified as having the following types of prescription drug coverage:

- Medicare Part D, either through a stand-alone prescription drug plan or a MA-PD plan.
- Retiree Drug Subsidy plans where employers receive a subsidy from Medicare to maintain drug benefits.
- Other creditable coverage through a private plan or public program that is expected to pay on average as much as the standard Medicare prescription drug coverage (e.g., veterans' benefits or coverage through a current employer, former employer, or union).

MCBS respondents also self-reported whether they had drug coverage through private health insurance (PHI) plans that were either employer sponsored insurance (ESI) or self-purchased plans (i.e. Medigap), private or Medicare managed care organizations, or Medicaid. The Urban Influence Codes were used to identify rural and urban residential status as follows: urban = metropolitan (codes 1 & 2); rural = micropolitan (codes 3, 5, & 8) and non-core (codes 4, 6, 7, & 9-12).

Results

Part D Enrollment Rates

Overall Medicare Part D enrollment rates increased 1 to 5 percentage points annually from 55.5% in 2006, the first year of the program, to to 61.4% in 2009. Rural Part D enrollment rates consistently lagged behind urban rates by 2 to 4 percentage points, increasing from 53.7% in 2006 to 58.6% in 2009 compared to urban rates increasing from 56.0% to 62.3%, respectively (Table 1).

The majority of the increase in Part D enrollment rates was attributable to increasing enrollment in MA-PD plans. From 2006 to 2009, MA-PD rates increased from 4.6% to 10.2% in rural areas and 19.9% to 26.4% in urban areas. Consistent with other studies, rural beneficiaries were more likely to enroll in stand-alone prescription drug plans (49% to 52%) than urban beneficiaries (36% to 38%), and enrollment in prescription drug plans held fairly steady across both geographic areas.[7] The only exception was a 3% drop in rural prescription drug plan enrollment rates in 2009 that was partially made up for by a 2% increase in MA-PD enrollment. This resulted in overall Part D enrollment in rural areas leveling off in 2008-09 at rates of 60.1% and 58.6%, respectively.

Other Types of Drug Coverage

Considering coverage provided through Medicare's Retiree Drug Subsidy plans[9] from 2006 to 2009, between 15.7% to 16.4% of rural and 16.0% to 17.3% of urban Medicare beneficiaries had prescription coverage through Medicare's Retiree Drug Subsidy plans.

While overall PHI coverage steadily decreased in both rural and urban areas, the majority of this decrease was due to the phasing-out of self-purchased Medigap policies.[10] Private ESI held fairly steady over the years, with coverage rates ranging from 28.2% to 32.1% in both rural and urban areas. Rural self-purchased policy coverage rates decreased from 11.4% in 2004 to 5.4% in 2009, while rates in urban areas went from a high of 10.6% in 2005 to 8.0% by 2009.

From 2006 to 2009, private and Medicare MCO prescription coverage rates steadily increased one to five percentage points in both rural and urban areas. Perhaps due to the conversion of Medicare+Choice plans to MA-PD plans and the greater tendency for urban residents to enroll in MCOs, urban areas saw a dramatic rate increase of 16 percentage points (9.2% to 24.9%) in private MCO coverage in 2006, with subsequent annual increases of 2% to 7%. While growth in prescription coverage in rural and urban areas was largely driven by MCO/MA-PD enrollment, overall MCO prescription coverage rates were persistently 16 to 20 percentage points lower in rural versus urban areas from 2006 to 2009.

Likely due to automatic enrollment of dual-eligible Medcare-Medicaid beneficiaries in Part D,[10] Medicaid drug coverage experienced a steady decline of one to four percentage points annually in both rural and urban areas after 2006. The impact of Part D auto-enrollment appears to have been greater in rural areas, which experienced higher rates of Medicaid drug coverage (12.8%) than urban areas (11.3%) prior to Part D implementation, and lower rates of Medicaid drug coverage after Part D implementation (2.9% and 4.3%, respectively).

Continuity of Drug Coverage

Although prescription coverage rates increased in both rural and urban areas following Part D implementation, Table 1 also illustrates that Part D had a larger impact on improving prescription drug coverage rates in rural areas. This was largely due to rural areas having to cover more ground compared to urban areas,

Table 1.Sources of Prescription Drug Coverage for Rural and Urban Medicare Beneficiaries, 2004-2009*

	Rural (n=16,680 person-years)						Urban (n=48,696 person-years)					
	2004	2005	2006	2007	2008	2009	2004	2005	2006	2007	2008	2009
Part D Coverage	NA	NA	53.7	55.2	60.1	58.6	NA	NA	56.0	56.8	61.5	62.3
Part D MA-PD Plans			4.6	7.7	8.6	10.2			19.9	22.3	24.9	26.4
(% of Part D)			(8.5)	(14.0)	(14.3)	(17.4)			(35.5)	(39.2)	(40.5)	(42.3)
Part D PD Plans			49.6	48.5	52.1	49.0			37.4	36.1	37.9	37.0
(% of Part D)			(92.5)	(87.9)	(86.7)	(83.6)			(66.7)	(63.6)	(61.7)	(59.5)
Retiree Drug Subsidy (RDS)			16.4	15.7	16.3	16.4			16.9	17.3	16.0	16.3
Creditable Coverage					18.8	19.4					20.7	20.8
Part D+RDS+Creditable Coverage					88.6	87.6					90.0	90.8
PHI Drug Coverage	39.0	40.5	40.7	38.7	36.3	34.6	40.1	40.5	40.8	37.8	36.3	36.0
Employer-sponsored	28.2	30.3	32.1	31.0	29.7	29.6	30.6	31.1	31.8	30.8	29.6	29.1
Self-purchased	11.4	10.8	9.7	8.9	7.3	5.4	10.3	10.6	10.3	8.0	7.8	8.0
MCO Drug Coverage	5.5	6.2	10.6	15.8	17.8	21.3	21.9	23.6	27.9	33.4	38.1	40.1
Private MCO	3.3	4.2	9.5	14.4	15.3	18.5	9.1	9.2	24.9	31.4	36.1	38.1
Medicare MCO	2.2	2.1	3.7	6.9	9.2	11.1	13.8	15.6	17.7	20.5	22.9	23.7
Medicaid Drug Coverage	12.8	12.5	10.2	6.7	5.1	2.9	11.3	11.6	10.1	7.1	5.6	4.3
Continuously Uninsured	27.9	18.5	8.3	9.0	7.1	8.4	19.5	12.9	6.3	5.3	4.6	4.8
Any Drug Coverage	60.8	62.3	88.9	88.9	91.2	90.0	73.0	74.6	91.7	92.1	94.0	94.4

* The Urban Influence Codes were used as follows: Urban = Metro (codes 1,2); Rural = Micro (codes 3,5,8) + Non-core (codes 4,6,7,9-12). PHI = Private Health Insurance, MCO=Managed Care Organizations. Note: Sample size reflects the number of people in each year of the study sample. Nonexclusive measures of coverage were used. Thus, beneficiaries with overlapping sources of coverage as well as beneficiaries who switched or joined plans mid-year were accounted for, and percentages do not add to 100%. Source: Medicare Current Beneficiary Cost and Use Files, 2004-2009

which had achieved near-universal coverage and faced a ceiling effect. From the pre- and post-implementation periods, rural areas experienced a 29 percentage-point increase in prescription coverage (ranging from a low of 60.8% coverage to 90.0%), while urban areas experienced an 18 percentage-point increase (ranging from a low of 73.0% coverage to 94.4%).

While evidence of geographic disparities in prescription coverage continues to persist, these differences have greatly diminished over time. Even though the level of prescription coverage in rural areas lags behind that of urban areas by 2 to 4 percentage points, these differences have been leveling out, and rates of prescription coverage from any source over the course of a year rose to 90% in rural and 94.4% in urban areas by 2009. This compares to rates of creditable sources of coverage (as determined by CMS) of 87.6% in rural and 90.8% in urban areas. Although rural areas have the most room for improvement, continuous rates of uninsurance have been approaching all-time lows. Prior to the implementation of Part D, residents lacking prescription drug coverage for a year or more (thus "continuously uninsured") ranged from over 27.9% in rural areas to 19.5% in urban areas in 2004. Following the implementation of Part D, continuously uninsured rates decreased 21 percentage points (from 27.9% to a low of 7.1%) in rural areas and 15 percentage points (from 19.5% to a low of 4.6%) in urban areas.

Who enrolled in Part D?

Since the demographic makeup of rural and urban Medicare beneficiaries enrolled in Part D was fairly consistent over years 2006-09, the overall averages are reported in Table 2. Rural and Urban Part D enrollees were less likely to be male, white, college educated, married, and in good-to-excellent health compared to their non-enrolled counterparts. Partly attributable to dually-eligible Medicaid and Medicare beneficiaries who were auto-enrolled into a Part D plan, lower income beneficiaries were more likely to enroll. Rural beneficiaries with chronic conditions (such as hypertension, congestive heart failure, cancer, or diabetes) were more likely to enroll; beneficiaries with multiple chronic conditions were more likely to enroll in the Part D program in both rural and urban areas.

Table 2. Demographic Characteristics of Rural and Urban Medicare Beneficiaries by Part D Enrollent, 2004-09

	Rural (n=16,680 person-years)		Urban (n=48,696 person-years)	
	Part D n=8,359	No Part D n=8,321	Part D n=24,773	No Part D n=23,923
Age (average years)	71.3*	73.5	72.2 ψ	74.2
Male (%)	39.8*	51.0	39.8ψ	47.7
White (%)	89.7*	93.8	79.8 ψ	86.8
Black (%)	7.5*	3.8	13.1ψ	9.5
Some college (%)	16.3*	21.3	21.3ψ	24.2
College graduate (%)	9.4*	16.7	18.0 ψ	25.2
Household income (mean)	25,146*	32,150	30,365 ψ	38,954
Married (%)	45.6*	61.0	43.1ψ	55.2
Employed (%)	10.3	12.0	10.9 ψ	12.6
Good-excellent health (%)	60.6*	72.3	67.1 ψ	74.1
Chronically Ill (%)	94.0*	92.5	93.0	92.7
Mean number of chronic conditions (for those with at least one)	3.79*	3.51	3.454ψ	3.37

* Differences between rural Part D enrollees and non-enrollees are significant at the 0.05 level.
ψ Differences between urban Part D enrollees and non-enrollees are significant at the 0.05 level.
Note: Respondents were included for Part D if they enrolled during any of the 3 years they were in the study sample. Source: Medicare Current Beneficiary Cost and Use Files, 2006-2009

Policy Implications

Enrollment in the Part D program has dramatically reduced rural uninsurance rates for prescription coverage from a high of 27.9% continuously uninsured in 2004 to approximately 8% in 2009. While continuous uninsurance rates in rural areas persistently lag 2 to 4 percentage points behind that of urban areas, these geographic differences are gradually diminishing.

While rates of PHI drug coverage in rural and urban areas have hovered between 35% and 41% in the pre- and post-Part D implementation

eras, the greater availability of MCO/MA-PD plans in urban areas appears to have encouraged more rapid growth in part D prescription coverage in urban areas. The potential for MA-PD plans to further increase rural prescription coverage rates to mirror those in urban areas appears questionable. Given rural residents' prior reliance upon employer-sponsored and Medigap policies for prescription coverage, how best to expand rural residents' prescription drug coverage options remains an important policy question. While the phasing out of Medigap policies for prescription coverage has decreased rates of private prescription drug coverage, similar increases in private MCO prescription coverage along with significant reductions in uninsurance rates and continued employer participation in Retiree Drug Subsidy plans dispel concerns that the Medicare Part D program may be crowding-out private prescription coverage.

Independent of geographic location, we found strong evidence of less-healthy beneficiaries enrolling in the Part D program. Beneficiaries with chronic conditions tend to use more health services. Future studies are needed to address whether beneficiaries with improved access to prescriptions through Part D realize better rates of medication adherence, and whether or not that leads to lower Medicare inpatient and outpatient expenditures. Given the difference in the composition of prescription insurance coverage and rates of uninsurance by geographic location, potential disparities in rural and urban medication adherence rates and subsequent Medicare expenditures may exist.

References

1. Mueller C, Schur C. Insurance coverage of prescription drugs and the rural elderly. J Rural Health, 2004. 20(1): p. 17-25.
2. MedPAC, Report to the Congress: Medicare Payment Policy. 2011, Medicare Payment Advisory Commission Washington, DC.
3. McBride TD, Kemper L, Mueller K. Rural enrollment in Medicare Part D is growing slowly. Rural Policy Brief, 2009(2009 2): p. 1-6.
4. Artz MB, Hadsall RS, Schondelmeyer SW, Impact of generosity level of outpatient prescription drug coverage on prescription drug events and expenditure among older persons. Am J Public Health, 2002. 92(8): p. 1257-63.
5. Davis M, et al. Prescription drug coverage, utilization, and spending among Medicare beneficiaries. Health Aff (Millwood), 1999. 18(1): p. 231-43.
6. Lichtenberg FR, Sun SX. The impact of Medicare Part D on prescription drug use by the elderly. Health Aff (Millwood), 2007. 26(6): p. 1735-44.
7. Kemper L, et al. Stand-Alone Prescription Drug Plans Dominated the Rural Market in 2011. 2012, RUPRI Center for Rural Health Policy Analysis: Iowa City, IA.
8. Briesacher SB, Poisal J, Doshi JA, Singhal P. Methodological issues in estimating prescription drug coverage using the Medicare Current Beneficiary Survey 2006, AARP Public Policy Institute: Washington, DC.
9. MedPAC, Report to the Congress: Medicare Payment Policy. 2013, Medicare Payment Advisory Commission: Washington, DC.
10. Centers for Medicare and Medicaid Services. Drug coverage (Part D). [cited 2013 January 2]; Available from: http://www.medicare.gov/part-d/index.html.

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