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Medicare Part D Payment Demonstration Evaluation: Final Report

Final Report

Prepared for

Aman Bhandari, Ph.D.
Centers for Medicare & Medicaid Services
Office of Research, Development, and Information
Mail Stop C3-19-26
7500 Security Boulevard
Baltimore, MD 21244-1850

Prepared by

Leslie Greenwald, Ph.D.
John Kautter, Ph.D.
Gregory C. Pope, M.S.
Nathan West, M.PH.
Maggie Cole-Beebe, Ph.D.
RTI International
Health, Social, and Economics Research
Research Triangle Park, NC 27709

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Part D Payment Demonstration Evaluation Plan Benefit Design Analysis
Draft Report

Authors: Leslie Greenwald, Ph.D.
John Kautter, Ph.D.
Gregory C. Pope, M.S.
Nathan West, M.PH.
Maggie Cole-Beebe, Ph.D.

Project Director: Leslie M. Greenwald, Ph.D.
Associate Project Director: John Kautter, Ph.D.
Scientific Reviewer: Gregory C. Pope, M.S.
Federal Project Officer: Aman Bhandari, Ph.D.

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EXECUTIVE SUMMARY

The Medicare Part D benefit, established in the Medicare Prescription Drug, Improvement and Modernization Act (MMA) of 2003 (P.L. 108-173) and originally codified in the *Federal Register,* January 28, 2005 (42 CFR Parts 400, 403, 411, 417, and 423), represents the largest expansion in Medicare benefits since the program's inception in 1965. When the new Part D program was implemented in 2006, an estimated 43 million Medicare beneficiaries were eligible for Part D. This project focuses on evaluating the impact of the Medicare Part D reinsurance demonstration. In general, the goals of all government-provided reinsurance programs include reducing health care premiums, promoting premium stability, and reducing the number of uninsured (American Academy of Actuaries, 2005). Offering a reinsurance program under Medicare Part D was intended to apply these goals to the new prescription drug program. The MMA Conference Committee specifically stated that the Centers for Medicare and Medicaid Services (CMS) should "demonstrate the effect of filling in the gap in coverage by reimbursing participating plans a capitated payment that is actuarially equivalent to the amount that plans would otherwise receive from the government in the form of specific reinsurance when an individual plan enrollee reaches the catastrophic attachment point." Although this project focuses on the Medicare Part D Payment Demonstration, evaluation of such a complex demonstration requires a complete understanding of the Part D payment and benefit structure.

This evaluation examined the impact of the Reinsurance Demonstration on drug plan sponsors (Prescription Drug Plans or PDPs and Medicare Advantage Prescription Drug Plans or MA-PDs), Medicare beneficiaries, and Medicare program utilization and costs. When mandated, the Reinsurance Demonstration was intended to encourage Part D plan sponsors to offer enhanced benefit packages by offering the option of up-front capitated reinsurance payments. In theory, the availability of this funding may have allowed some plans to offer enhanced benefits when they otherwise may not have. But the demonstration, by altering the reimbursement systems for participating plans, may have influenced a range of features and outcomes within the new Medicare Part D program. For example, we wanted to know why drug plans sponsors elected, or failed to elect, participation in the reinsurance demonstration, and what the advantages and disadvantages of participation were from the perspective of drug plan sponsors (*Federal Register,* Vol. 70, No. 37). From the beneficiary perspective, the evaluation focused on differences in how demonstration plan enrollees may have perceived the Part D program compared to non-demonstration plan enrollees. The evaluation also considered the availability of and enrollment in enhanced alternative benefit packages offered by drug plan sponsors, the costs they faced when enrolled (or not enrolled) in a demonstration plan, as well as enrollees' patterns of utilization. The evaluation also explored the impact of the demonstration on Medicare program costs, considering whether or not enhanced plans (including both those participating and not participating in the demonstration) experienced biased selection.

The evaluation used a range of data collection and analytic approaches to examine the impacts of the demonstration. A series of demonstration site visits collected detailed information on why specific Part D plan sponsors chose to participate, or not participate, in the reinsurance demonstration. We conducted a series of focus groups with beneficiaries enrolled, and not enrolled, in Reinsurance demonstration plans. From these focus groups, described any observed differences in the experiences of beneficiaries in each of these groups. The evaluation also used a

range of CMS administrative data to examine differences in benefits offered by demonstration and non-demonstration plans, as well as beneficiary responses to demonstration plan offerings as measured through enrollment. The last phase of the evaluation considered differences between demonstration and non-demonstration enhanced plans on the costs and utilization of Medicare services.

During the course of the evaluation, a series of analyses and interim reports were prepared. These included in the following:

- Evaluation Design Report
- Demonstration Site Visit Report
- Demonstration Focus Group Report
- Demonstration Benefit Analysis Report
- Demonstration Enrollment Report
- Demonstration Cost and Utilization Report

This final report summarizes the key findings from each analytic interim report, and concludes with a summary chapter on the collective evidence of the impacts of the Medicare Reinsurance Demonstration.

Key Findings

The Reinsurance Demonstration was originally designed in part to encourage participating Part D organizations to offer enhanced benefit package products in a wider range of markets by offering reinsurance financing "up front" in the form of capitated payments. Ultimately, as the Part D program matured, availability of products—particularly plans offering enhanced benefits—did not turn out to be a problematic policy issue. Still, the impact of this alternative financing option is still of potential interest to policy makers as they consider the future modification to the Part D program. We summarize here the overall results of the Reinsurance Demonstration, organized by the primary elements of the evaluation analyses.

Part D Plan Sponsors: Did the Reinsurance Demonstration Impact the Types of Benefits Offered Under Part D?

Almost all of the organizations we spoke to believed that the alternative reinsurance financing offered under the demonstration gave them the opportunity to offer a richer package of drug benefits or lower premiums than they would have been able to offer without the demonstration. Many organizations would have offered some Part D enhancements even without the demonstration financing, depending on the competitiveness of the market, although a few organizations specifically stated that without the demonstration they would not have been able to offer a Part D standalone plan with gap coverage. However, there was almost universal agreement that the demonstration allowed either "better" enhanced benefits, lower monthly premiums—or both—because of the demonstration.

All the organizations cited implementation and operational issues related to the first year of the Part D program. These issues, however, rarely had any relationship to the demonstration per se. Organizations told us that while the demonstration options added some complexity to the overall Part D implementation, the pressures of the program as a whole were so great that the demonstration added only one additional issue to think about. The larger organizations explained that, through their government relations activities, they were expecting something along the lines of the reinsurance demonstration, and therefore began basic planning relatively early on in their Part D implementation process. Other smaller plans seemed to become aware of the demonstration options later on, and then relied on consultants to help them adjust their benefits and bids accordingly. In reviewing the distribution of enhanced benefit plans, a number of organizations chose to offer enhanced products outside the demonstration. Demonstration participants were asked for their theories on this unexpected outcome. The most prevalent response was that, in the rush to implement the Part D program as a whole, some organizations may not have had the time or resources to address the possibility of reinsurance demonstration participation. No demonstration participating organization offered a substantive reason why it might be in the interest of insurers to offer enhanced Part D benefits outside the demonstration, unless the enhancements were only below the initial coverage limit and did not involve filling in the coverage gap.

Part D Plan Sponsors: Did the Reinsurance Demonstration Change the Way Part D Participating Organizations Viewed the Medicare Part D program?

Organizations were universally supportive of the Reinsurance Demonstration and, as noted earlier, thought the alternative financing available under the demonstration allowed them to offer better enhanced benefits for lower premiums. Most organizations said they would probably have offered some form of enhanced benefits even without the demonstration, but were clear the enhancements would have been less or the premiums and cost sharing would have been higher. In our site visits, we did not find that the demonstration had any real effects on the implementation issues that arose, or the marketing and education strategies organizations used. Overall views of early success of the demonstration were positive among the organizations visited. Most organizations thought that so far, the demonstration overall has been a success. Most of the organizations have met or exceeded their enrollment goals set before the demonstration started. However, many organizations were only cautiously optimistic with respect to the financial success of the demonstration, mainly because of more adverse selection for their demonstration products than expected. These organizations had a "wait and see" attitude with respect to the ultimate success of the demonstration.

As part of our evaluation, we also spoke with organizations who offered enhanced Part D plans, but chose not to participate in the demonstration. There are a large number of enhanced plans offered under Part D without the benefits of demonstration participation; this questions the necessity of the demonstration to ensuring the availability of enhanced Part D products. The non-participating organizations we spoke with primarily cited operational limitations in explaining their decision. The decision to participate in the reinsurance demonstration initially had to be made at an extremely busy time when inaugural Part D bids and product implementation plans were due. Non-participating plans said they simply did not have the resources to evaluate this demonstration option; an option that was also viewed by these organizations as somewhat complex and confusing. In addition, these organizations also raised some concerns about

forgoing the opportunity to reconcile actual expenditures in calculating reinsurance payments. These organizations were somewhat concerned about the added financial risk involved in demonstration participation

Part D Enrollee Perspectives: Where There Differences Between the Perspectives of Enrollees in Demonstration Part D Plans versus Enrollees of Non-Demonstration Part D Plans?

Based on limited focus groups we conducted as part of the evaluation, we did note some key differences among the enrollees in demonstration versus non-demonstration plans. First, enrollees in demonstration plans were much more aware of having a range of choices, particularly choices among basic and enhanced benefit packages. Demonstration plan enrollees across all sites appear to have engaged in a much more deliberate process for making a Part D plan choice. Second, enrollees in demonstration plans were generally more knowledgeable about Part D plan benefit details. With the exception of non-demonstration plan enrollees in West Palm Beach, non-demonstration plan enrollees knew much less about key Part D plan features (such as the coverage gap). Third, enrollees in the demonstration plans, based on their self-descriptions, appeared on average to be healthier and consume fewer drugs than the non-demonstration enrollees. It was expected that enrollees in demonstration enhanced plans to have greater drug needs compared to the non-demonstration enrollees who were overwhelmingly enrolled in basic plans. The opposite appeared to be true; that demonstration plan enrollees described themselves generally as needing fewer drugs than many of the non-demonstration enrollees, who commonly described themselves as having complex medical needs and requirements for a wide range of drugs. This finding might be explained by a greater representation of higher income beneficiaries, with better on average health status, having a greater ability to pay higher enhanced plan premiums.

The limitations of focus group analysis do not allow us to definitively identify reasons for these observed differences among the groups. However, we were able to identify a number of potential explanations. First, enrollees in demonstration plans are, by definition, all enrolled in enhanced plan products. These products are often (but not always) more expensive than comparable products available in the marketplace. Therefore, beneficiaries willing to pay additional money may also have been more willing to invest time and energy in gathering information to make an informed choice. Second, though we have no direct evidence, organizations that chose to participate in the demonstration in order to offer enhanced benefits might also have done a better job of educating potential enrollees about their products and those product features. Third, beneficiaries receiving government subsidies were eligible to enroll in only basic plans (unless they chose to pay higher premiums, which few have). These beneficiaries of lower socioeconomic status may have either been auto assigned to plans, and/or, because of the subsidies they receive, had little incentive to choose carefully among plan choices.

Part D Benefit Impacts: Did Benefit Offerings Differ Between Demonstration and Non-Demonstration Options?

Premiums and Cost Sharing: The availability of the alternative financing available through the Reinsurance Demonstration may, or may not, have impacted the premiums and cost sharing charged to enrollees for enhanced plan benefits. In general, we found that demonstration enhanced plans were often slightly more expensive in terms of monthly premiums than non-

demonstration enhanced plans. This can be accounted for in some, but not all cases, by slightly increased benefits offered by demonstration plans. Among PDPs, demonstration enhanced plans had the highest average premiums, followed closely by non-demonstration enhanced plans. Flexible capitation enhanced plan premiums (no fixed capitation PDPs were offered in 2006) were between $10 and $20 per month more expensive than basic plans, and about $3 more costly per month than non-demonstration enhanced plans. The mean premium for flexible demonstration plans increased by 15 percent between 2006 and 2007, while non-demonstration plans increased by only 4 percent. This may be evidence of selection of higher-risk people into the more generous demonstration plans, or simply that demonstration plans were underpriced at the start. Demonstration plans tended to have higher premiums than non-demonstration plans. However, demonstration plans had lower deductibles and higher initial coverage limits.

By 2007, demonstration and non-demonstration premiums (both enhanced and basic) were about the same, hovering around $20 per month. Among MA-PDs, demonstration enhanced plans were also, on average, more expensive than all other plans, although the differences were much smaller and in some cases as little as $1 per month. In 2006, the MA non-demonstration enhanced plan had a median premium of $0.00, but in 2007, the median premium in this group increased to $18.30. Although the mean for the 10 fixed capitation MA plans dropped from $38.63 to $18.10, the median premium dropped from $42.00 in 2006 to $0.00 in 2007.

We compared cost sharing as defined by plan deductibles and initial coverage levels and found a number of differences among plan types. The $0 median deductibles for basic alternative and all enhanced plans were particularly noteworthy, indicating that waiving the standard deductible was a common benefit design element among all enhanced plans types. We did find, however, that mean deductibles for non-demonstration enhanced plans were slightly above $0 (but all less than $10) suggesting that unlike demonstration enhanced plans, not all non-demonstration enhanced plans waived plan deductibles. This suggests a slightly improved systematic benefit offered by demonstration plans, though its value (at $265 in 2007) is modest.

Among enhanced benefit plans, non-demonstration plans generally followed the pattern found in alternative basic plans, offering lower deductibles paired with low initial coverage limits. Not surprisingly given their low monthly premiums, non-demonstration enhanced plans had corresponding lower mean and median initial coverage limits as compared with other enhanced plans. The lower the initial coverage limit, the sooner the enrollee theoretically enters the coverage gap. However, it is important to note that the trend among enhanced non-demonstration plans, which on average started at a mean initial coverage level of just under $2,000 in 2006, increased in 2007. The PDP initial coverage limit increased by $88, and the MA-PD initial coverage limit increased by $400, a 20 percent increase. By comparison, the demonstration plans had higher initial coverage limits compared with non-demonstration plans, a median of $3,000, which did not change between 2006 and 2007. Flexible capitation demonstration plan enrollees have the longest period of coverage prior to entering the coverage gap. Whether or not this indicates a “better” benefit to enrollees however depends on the likelihood that a beneficiary will enter and emerge from the coverage gap. If an enrollee chooses a demonstration plans with a higher initial coverage limit, and will enter but not emerge from the coverage gap, the benefit is better. However, for an enrollee who has prescription drug benefits sufficient to both enter and emerge from the coverage gap, the higher initial coverage limit delays the financial point at which the substantial coverage of the catastrophic levels begins.

Therefore, it is difficult to determine without utilization data whether the higher initial coverage limits found among demonstration enhanced plans is always indicative of "better" benefits.

We also found differences among demonstration and non-demonstration plans on cost sharing, as defined by coinsurance and copayments within drug tiers. With the exception of the defined standard benefit plans, whose designs do not include the use of drug cost-sharing tiers, all other plan types used drug tiers as an incentive for beneficiaries to use certain types of drugs. The majority of plans used copayments in the lowest tiers and coinsurance in higher tiers. PDPs tended to have fewer drug tiers than MA-PDs. Universally, the percentage of total tiers using copayments dropped between 2006 and 2007, implying that plans switched tiers from copayments to another form of cost sharing, such as coinsurance, or that plans increased their total number of tiers, supplementing copayment tiers with more coinsurance tiers. This is a somewhat troubling trend as coinsurance places a greater financial burden on beneficiaries compared to copayments. Of note, we found that in general demonstration enhanced plans were trending more quickly toward coinsurance than non-demonstration enhanced plans. In 2007, PDP demonstration plans had higher proportion of plans applying copayments; in contrast, MA-PD demonstration plans had a lower proportion of plans applying copayments. Among enhanced plans, flexible capitation demonstration plans applied fewer total copayment tiers. Among enhanced plans, mean and median coinsurance rates within tiers tended to vary little, but the total number of tiers on average increased between 2006 and 2007.

Gap Coverage: As with the premiums and cost sharing charged to enrollees, the alternative financing available to demonstration plans may have influenced these plan sponsor's ability to offer gap coverage to their enrollees. We found some differences between demonstration and non-demonstration plans in terms of the these benefit elements, though perhaps the differences were not as great as we expected given the additional funding available to demonstration plans up front (instead of after reinsurance reconciliation). Demonstration enhanced plans were not required to offer coverage in the gap, and not all demonstration plans did so, opting instead to offer other enhanced benefits. The majority of demonstration PDPs (74.3 percent) did offer gap coverage; only a minority of demonstration MA-PDs (33.1 percent) offered gap coverage. Among PDPs, a much larger proportion of flexible capitation demonstration plans offered either generic or generic and brand-name drug coverage in the gap, as compared with non-demonstration enhanced PDPs. Among MA-PDs, flexible capitation demonstration plans were more likely to offer generic coverage in the gap in 2006, but not in 2007, compared with either non-demonstration enhanced or fixed capitation demonstration plans. In 2007, data became available on types of gap coverage offered by plans. An average of only about 2 percent to 3 percent of plans covered all formulary drugs or generics and preferred drugs. This implies that even when drugs are covered, coverage in the gap is very limited for all enhanced plan types.

Part D Benefit Impact: Was There Evidence that the Part D Reinsurance Demonstration Resulted in More Generous Enhanced Benefit Packages?

Premiums and Cost Sharing: We found little systematic patterns indicating demonstration plan benefits in structure offered better benefits to enrollees. Considering the premium and cost sharing of demonstration versus non-demonstration plans, we found a number of instances in which demonstration plans were *more* costly than both non-demonstration

enhanced and basic plan packages. For example, in MA-PDs in 2006, fixed capitation enhanced demonstration plans had the highest monthly mean premiums, and flexible capitation plans had the second-highest monthly premiums (though only by a small margin over defined standard benefit plans). In 2007, MA-PD premiums were the same on average across plans; but in PDPs, demonstration plan premiums were consistently higher than any other plan premium. On many of the cost-sharing measures—particularly initial deductible and coverage limits— enhanced plans offered lower cost sharing in exchange for higher premiums. Among enhanced plans, the flexible capitation demonstration plans offered the highest initial coverage levels of all plan type variants, particularly the flexible capitation MA-PDs, which had a median initial coverage level of $3,000. But as noted earlier, whether higher initial coverage levels is necessarily a better benefit depends in large part on if, and at what point, the enrollee is likely to enter and emerge from the coverage gap. A higher initial coverage limitation can, for some beneficiaries, result in a delay at the point in which they enter and emerge from the coverage gap to receive generous catastrophic level benefits. We also found some additional trends, such as quicker movement from copayments to more costly coinsurance among demonstration plans compared to non-demonstration plans.

Demonstration plans in general were more likely to offer coverage in the coverage gap compared with non-demonstration plans, though not all demonstration plans offered this type of enhanced benefit as was the expectation among some policy makers. This advantage among demonstration plans relative to non-demonstration plans was only found among PDPs; differences in offering of gap coverage. A total of 74.3 percent of flexible capitation PDPs offer either generic or generic/brand-name coverage in the gap, as compared with MA-PDs, while a total of 33.1 percent of flexible capitation and 80.0 percent of fixed capitation plans offered some gap coverage. The limited gap coverage under flexible capitation MA-PDs was the most surprising finding.

We expected MA demonstration plans to offer gap coverage at a rate at least as high as the rate among PDPs or non-demonstration MA-PDs; they did not. This finding is particularly surprising given that MA-PDs had the potential to subsidize additional benefits through either the reinsurance demonstration funds or Medicare Part A and B rebates; PDPs do not have the rebate option. However, PDPs may have perceived a need to offer the best benefits possible to compete against the wide variety of stand-alone prescription drug options available in most regions. Participation in the demonstration did not guarantee that coverage in the coverage gap would be available.

Generosity Index: Our generosity analysis suggests that, taking simulated utilization into account, demonstration plans may turn out to be less expensive and hence more generous for beneficiaries. Comparing demonstration and non-demonstration enhanced plans, we found that across both PDPs and MA-PDs, demonstration plans had a lower total cost (i.e., Total Cost = Premium + Average Out-of-Pocket Monthly Cost). Among MA-PDs, this was true across age groups and illness groups. As age increased and as self-reported illness increased, average spending also increased; however, demonstration plans consistently cost less than all other plans. Among PDPs, mean out-of-pocket expenditures for demonstration plans were about $17 less per month, indicating (by this measure) a more generous product. For MA-PDs, mean out-of-pocket spending for flexible capitation demonstration plans was about $15 less per month, and fixed capitation demonstration plans was $12 lower per month than enhanced non-demonstration

plans. We found similar results when analyzing spending by age and health status category. Overall, the generosity of MA-PDs was greater (i.e., cost per month cheaper) than that of PDPs. The difference between basic MA-PDs was slight at about $25 (see Table 6-1)—the amount of the premium. The difference between enhanced PDPs and MA-PDs was much greater, closer to $20 per month.

Part D Enrollment Impact: How Did Total Enrollment in Demonstration Enhanced Plans Compare to Non-Demonstration Enhanced and Basic Plans?

Both in 2006 and 2007, most Medicare beneficiaries who enrolled in a Medicare Part D plan chose a basic plan. In both years, roughly twice as many Medicare Part D enrollees chose basic plans compared to enhanced plans. Medicare Part D enrollees also enrolled in greater numbers in standalone PDPs compared to MA-PDs. However, enrollment trends between 2006 and 2007 may in the future result in different patterns. Between these years, enrollment in most basic plans declined, with overall enrollment in basic plans declining 0.8 percent between 2006 and 2007. The exception was enrollment in basic alternative plans, which increased a total of 8.1 percent. By comparison, enrollment in enhanced plans showed substantial growth even over this two year period. Enrollment in almost all enhanced plans climbed between 2006 and 2007, resulting in an overall increase of 21.5 percent. Therefore, while basic Part D plans appear to have been the initial choice for Medicare Part D enrollments, trends may suggest greater emphasis on plans offering enhanced benefits in the future.

By 2007 there were many more non-demonstration enhanced plans available compared to demonstration enhanced plans. Therefore, it is not surprising that the majority of enrollees in enhanced Part D plans chose a non-demonstration plan in 2007. However, if we compare enrollment in demonstration versus non-demonstration plans (simply by dividing the total enrollment by the number of plans offered), we found that demonstration enhanced plans have attracted about 3 times as many enrollees compared to non-demonstration enhanced plans. This suggests that while the total number of enrollees in non-demonstration enhanced plans is outpacing demonstration plans, the demonstration plans are much more successful—plan for plan—at attracting enrollees. There are a number of possible explanations for this finding, one being that demonstration plans, which include most of the largest national managed care organizations, may invest more in marketing and information dissemination aimed at attracting potential enrollees.

Part D Enrollment Impact: Did Enrollment Trends In Demonstration Versus Non-Demonstration Plans Vary by Enrollee Characteristics?

We found that in both 2006 and 2007 the distribution of enrollment characteristics varies little between overall plan types, suggesting little evidence for selection bias. For example, in 2007 basic plans had about 27 percent of their enrollment from the under 65 disabled population, 35 percent from the 65-74 age group, about 26 percent from the 75-84 age group, and about 12 percent from the over 85 age group. The exception was the actuarially equivalent basic plans, which drew a slightly larger proportion of enrollment from the under 65 age group. Similar patterns were found among the enhanced plans, and there appears to be little variation in beneficiary characteristics between demonstration and non-demonstration enrollees. In 2007, enhanced plans drew about 11 percent of their enrollment from the under 65 disabled population,

46 percent of enrollment from the 65-74 age group, about 32 percent from the 75-84 age group, and another approximately 11 percent from the over 85 age group. We saw that non-demonstration plans drew slightly larger proportions of their enrollees from the older age groups. Similar patterns were found for gender.

There were differences between plan types with regard to dual-eligibility status, but this is an effect of specific policy requirements. Medicaid eligible beneficiaries can enroll in a basic plan, but must pay out of pocket for additional premiums if they enroll in an enhanced plan. Therefore, as expected, the majority of dually entitled beneficiaries have enrolled in basic plans. The analysis found that actuarially equivalent plans had a much smaller proportion of dually entitled beneficiaries compared to other basic plans.

Part D Enrollment Impact: Did Enrollment Trends in Demonstration Versus Non-Demonstration Plans Vary by Geographic Area?

Similar to the Non-Part D population, we found that most enrollees in Part D plans of all benefit types are found in urban rather than rural counties. In 2007, 77.3 percent of all Part D enrollees, 74.8 percent of basic plan enrollees, and 81.9 percent of enhanced plan enrollees were residents of urban counties. Within basic plans, we found few large differences among plan types though enrollees in defined standard plans were less urban than other basic plan enrollees. Among enhanced plans, there was some consistency in the urban majority of enrollees. However, a greater proportion of non-demonstration enrollees were residents of urban counties (87.1 percent) compared to enrollees in demonstration plans (75.0 percent). This suggests that non-demonstration plans draw greater proportions of urban relative to rural enrollees. There were few differences among the demonstration plans (with the exception of high urban concentration of the fixed capitation plans—we discounted the relevance of this finding due to the small number of fixed capitation plans). We also saw no large urbanicity-based enrollment changes between 2006 and 2007, or between PDP and MA-PD plans.

In both 2006 and 2007, total Part D plan enrollees were generally distributed evenly across the country, with some exceptions. For example, in 2007, we found that among all Part D plans, the Northeast has the lowest concentration (18.8 percent) of Part D plan enrollees, and the South (with 37.8 percent) had the highest concentration of enrollees.[1] These patterns persisted for both basic and enhanced benefit packages. Comparing demonstration and non-demonstration enhanced plans, we found that enrollment in non-demonstration enhanced plans—particularly among MA-PDs—was much more concentrated in the Northeast where 22.7 percent of non-demonstration enrollees were located, compared to 7.9 percent of demonstration enrollees. Similarly, there was a higher concentration of non-demonstration enrollees in the West compared to demonstration enrollees. Demonstration enrollees, driven by the dominant flexible capitation option plans, were concentrated in the Midwest and South. There were few changes in these trends between 2006 and 2007.

[1] For the Non-Part D population, the West had the lowest concentration (16.6 percent), with the Northeast having the second lowest concentration (19.9 percent). The South again had the highest concentration (38.5 percent).

Part D Enrollment Impact: Did Enrollment Trends in Demonstration Versus Non-Demonstration Plans Suggest the Demonstration Resulted in Receipt of Improved Benefits, Such as Reduced Deductibles and/or Coverage in the Gap?

In 2007, non-demonstration enhanced plans had a greater proportion of their enrollees (39 percent) in zero premium plans compared to demonstration plans (30.6 percent). When the small number of fixed capitation plan enrollees were removed, the differences are even greater. This suggests that non-demonstration plans were attracting larger proportions of enrollees to zero premium plans by offering their enhancements at no additional costs compared to regular MA benefits. These relative findings were also evident in 2006, though in this earlier year, all enhanced plans had greater proportions of enrollees in zero premium plans. We found that enhanced plans have virtually all their enrollment (99.2 percent) in zero deductible plans compared to basic alternative plans (75.2 percent). Reducing deductibles is one way to improve plan generosity, and in theory, the availability of capitated reinsurance payments under the demonstration might have allowed demonstration participating plans to reduce deductibles to attract enrollees. However, as noted, we found that virtually all enrollees in enhanced plans were enrolled in zero deductible plans. We did find that in 2007 non-demonstration enhanced plans as a whole had a slightly lower percentage of enrollees (98.6 percent) in zero deductible plans compared to demonstration plans (100 percent).

We found that the majority of enrollees in all enhanced plans, in fact, have no gap coverage in either 2006 or 2007; the proportion of enrollees with gap coverage improves somewhat between 2006 and 2007 however. In 2007, 59.2 percent of all enrollees in enhanced plans had no gap coverage; 33.2 percent were enrolled in plans with gap coverage for generics, and 7.6 percent had gap coverage for both generic and brand name drugs. Non-demonstration plans actually had a lower percentage of enrollees with no gap coverage (57.2 percent) compared to demonstration plan enrollees (61.8 percent). A larger proportion of enrollees in non-demonstration plans (37 percent) have access to generic only coverage compared to demonstration enrollees (28.2 percent). These findings suggest that compared to non-demonstration offerings of enhanced coverage, the reinsurance demonstration does not appear to have resulted in an increase in Part D enrollees with prescription drug coverage in the gap.

Part D Enrollment Impact: Did Demonstration Plans Experience Adverse or Favorable Selection?

The mean Rx-HCC risk score for non-duals enrolled in the Part D program is 1.00, compared to 0.95 for non-duals not enrolled in Part D. In other words, among non-duals, Part D enrollee drug costs are predicted to be 5 percent higher than for beneficiaries not enrolled in Part D. Thus even among non-duals, there appears to be some adverse selection into the Part D program, although to a lesser degree than for the Medicare population as a whole (duals + non-duals). Among enhanced plans, the mean risk scores are broadly similar for demonstration versus non-demonstration plans (0.99 versus 0.98), and this pattern holds for both enhanced PDP plans and for enhanced MA-PD plans. For basic and enhanced plans, the mean risk scores for PDP versus MA-PD plans follow a similar pattern as for the Part D program as a whole, with the mean risk score for PDP plans substantially higher than for MA-PD plans.

For non-dual eligibles enrolled in Part D, the mean risk score for basic plans is higher than for enhanced plans (1.01 versus 0.98). Thus, even among non-duals, enhanced plans appear to be experiencing some favorable selection relative to basic plans. However, this last result might be an artifact of the distributions of basic and enhanced enrollment. For basic plans, PDP plans comprise the vast majority of enrollment (89 percent), whereas for enhanced plans, MA-PD plans comprise the majority of enrollment (57 percent). Given our finding of favorable selection for MA-PDs, it is not too surprising that the mean risk score for enhanced plans is lower than for basic plans. We found the mean risk scores for non-duals enrolled in PDP basic and enhanced plans are broadly similar (1.02 versus 1.03). Therefore, for non-duals enrolled in PDP plans, there does not appear to be selection bias for enhanced plans relative to basic plans. We found similar results for MA-PDs. The mean risk scores for MA-PD basic and enhanced plans are identical at 0.94. Thus for non-duals enrolled in MA-PD plans, enhanced plans do not seem to be experiencing a selection bias relative to basic plans. We find these results counterintuitive given the hypothesis that chronic users of prescription drugs will be more likely to enroll in enhanced plans. Further, these results are inconsistent with our site visit findings, in which demonstration plans claimed to have experienced adverse selection. Possibly enhanced plans are not a better deal for beneficiaries in poorer health because they "pay for" enhanced benefits with higher premiums.

Part D Enrollment Impact: What Factors Determined Part D Enrollment?

In general, the multivariate analysis of factors influencing Part D enrollment were consistent with what we found in the descriptive analysis. Noteworthy however were statistically significant results suggesting that among Part D enrollees, sicker beneficiaries are more likely to enroll in enhanced plans, and among enhanced plan enrollees, sicker beneficiaries are more likely to enroll in demonstration plans. Among Part D enrollees, sicker beneficiaries tend to enroll in enhanced plans more than basic plans (odds ratio = 1.29), meaning that if the risk score is increased by 1.00, the odds of enrolling in an enhanced plan increases by 29 percent. Similarly, among enhanced plan enrollees, sicker beneficiaries tend to enroll in demonstration plans more than non-demonstration plans (odds ratio = 1.11), meaning that if the risk score is increased by 1.00, the odds of enrolling in a demonstration plan increases by 11 percent.

Note however that although we found several statistically significant results, it is important to consider population averages as well as incremental effects holding other variables constant (which is what the regression coefficients show). Our multivariate finding on risk score makes some intuitive sense as beneficiaries with greater health care needs are more likely to need more extensive drug coverage, and hence more likely to choose a richer benefit package. However, while we do find evidence that sicker beneficiaries are more likely to enroll in enhanced plans, the substantive differences are small and arguably not large enough to be considered evidence of selection bias. Our descriptive analysis supports this conclusion, which showed that among non-dual Part D beneficiaries enrolled in PDPs, the mean risk score for enhanced plan enrollees was broadly similar to the mean risk score for basic plan enrollees, although slightly higher (1.03 versus 1.02).

Part D Cost and Use Impact: Did the Reinsurance Demonstration Affect Medicare Expenditures and Utilization?

As part of this evaluation, we conducted an analysis of 2007 Part D expenditures and utilization for non-enhanced versus enhanced coverage plans, and for demonstration versus non-demonstration enhanced plans. Though all reinsurance demonstration plans are, by definition, enhanced plans, we broadened our comparison to include non-enhanced plans so that we could consider whether trends and impacts we observed for the demonstration might be occurring in the full Part D program. Because beneficiaries receiving the Part D low-income subsidy are generally auto-enrolled in non-enhanced plans, these beneficiaries are excluded from the analysis sample. We compared beneficiary response to the different plan options by evaluating expenditures and utilization by the range of plan types. The report also analyzes expenditures and utilization in demonstration versus non-demonstration benefit plans by various beneficiary characteristics, including demographics, health status, disease groups, and drug classes.

The descriptive analyses suggest that, as a whole, enrollees in demonstration enhanced plans have higher average annualized Part D total expenditures and utilize a higher average annual number of 30-day prescriptions compared to their non-demonstration enhanced plan enrollees. In addition, the same pattern generally holds for enhanced and non-enhanced plan enrollees, with enhanced plan enrollees having higher expenditures and utilization. These findings generally persist within most beneficiary characteristic groups, and across disease categories and drug classes.

Overall, Medicare beneficiaries enrolled in all (PDP and MAPD) demonstration enhanced plans had the highest total annualized mean expenditures ($1,916), compared to non-demonstration enhanced plans ($1,765) or non-enhanced plans ($1,764). Utilization rates (defined as the percentage of enrollees filling at least one prescription) varied only slightly between demonstration and non-demonstration enhanced plans. The analysis also considered the mean annualized number of prescriptions filled. Again, there was minimal variation between demonstration and non-demonstration enhanced plans. Overall, demonstration enhanced enrollees filled an average of 34.8 prescriptions per year, compared to 32.0 for the non-demonstration enhanced enrollees. Enrollees in all enhanced plans filled a larger number of prescriptions (33.2) compared to enrollees in non-enhanced plans (31.5). Similar patterns were noted for utilization as measured by mean number of 30-day prescriptions. Interestingly, across all these measures, enrollees in MAPDs across all plan benefit types had lower expenditures and had lower mean utilization rates compared to enrollees in PDP plans.

These average findings, however, for the combined sample of PDP and MAPD enrollees, mask different results when expenditures and utilization are analyzed separately for PDP enrollees and separately for MAPD enrollees. Whereas in the combined sample we find demonstration enhanced plans have higher average total expenditures per beneficiary, for the separate PDP and MAPD samples we find the opposite finding, i.e., demonstration enhanced plans have lower average total expenditures. For example, for the combined sample annualized total expenditures are $1,916 for demonstration enhanced plans and $1,765 for non-demonstration enhanced plans. However, for the PDP sample the expenditure means for demonstration and non-demonstration enhanced plans are $2,260 and $2,382, respectively, and for the MAPD sample they are $1,378 and $1,444, respectively. The difference in findings

between the combined sample on the one hand, and the two subpopulations (PDP and MAPD) on the other, which initially might appear to be counterintuitive, is actually explained by noting that the mean for the combined sample is an enrollment weighted average of the means for the separate PDP and MAPD samples. Given 61.1 percent of demonstration enhanced plan enrollees are in PDPs, whereas only 34.3 percent of non-demonstration enhanced plan enrollees are in PDPs, expenditures for PDP plan enrollees will be weighted higher for demonstration enhanced plans than for non-demonstration enhanced plans, and expenditures for MAPD plan enrollees will be weighted lower. We can conclude that while demonstration enhanced enrollees had higher total expenditures for the combined sample than did non-demonstration enhanced plan enrollees, the results contain variation and are highly sensitive to the distribution of enrollees in specific plan types (i.e., PDP vs. MAPD). Therefore, the descriptive results should be interpreted with some caution.

Part D Cost and Use Impact: Did the Demonstration Induce Demand for Medicare Part D Services?

Multivariate regression models were estimated for Part D total expenditures and number of 30-day prescriptions. As expected, since the RxHCC risk score is an expenditure-weighted index of a beneficiary's diagnoses that predicts the relative risk of future Medicare Part D expenditures, it was a powerful predictor of both Part D expenditures and utilization. Compared to the lowest percentile risk score group (0-5%), the highest percentile group (95-100%) had $3,515 more total expenditures, and 58.8 more prescriptions. In addition, being enrolled in a PDP appears to impact total expenditures, with an estimated coefficient of $618, indicating other things equal, beneficiaries enrolled in a PDP plan have higher total Part D expenditures for covered drugs than do beneficiaries in MAPD plans (by $618). One possible reason for this is that MAPD plans integrate a beneficiary's health plan with their drug plan, and thus have a greater ability to manage their overall health care. In addition, more incentives might exist for MAPD enrollees to use generic drugs rather than brand name drugs.

The multivariate regression results showed that there is evidence for an induced demand effect of enhanced coverage plan offerings in 2007. Other things equal, enhanced plan enrollees have $269 more in total expenditures, and 2.3 more 30-day prescriptions. The induced demand effect appears to be mainly driven by being enrolled in any enhanced plan, not necessarily being enrolled in a demonstration enhanced plan. This last result might make sense when one considers that the plan benefit structures for demonstration enhanced plans are not substantially different than for non-demonstration enhanced plans. The evidence for an induced demand effect is stronger for PDP enrollees than it is for MAPD enrollees, and for total expenditures than for utilization. Thus we have only shown a limited finding of induced demand.

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SECTION 1
BACKGROUND AND UNDERSTANDING OF THE OVERALL PART D PAYMENT DEMONSTRATION EVALUATION

1.1 Background

The Medicare Part D benefit, established in the Medicare Prescription Drug, Improvement and Modernization Act (MMA) of 2003 (P.L. 108-173) and originally codified in the *Federal Register,* January 28, 2005 (42 CFR Parts 400, 403, 411, 417, and 423), represents the largest expansion in Medicare benefits since the program's inception in 1965. When the new program began in 2006, an estimated 43 million Medicare beneficiaries were eligible for Part D. Although this project focuses on the Medicare Part D Payment Demonstration, evaluation of such a complex demonstration requires a complete understanding of the Part D payment and benefit structure.

Coverage for the prescription drug benefit is provided through stand-alone prescription drug plans (PDPs), which offer only prescription drug coverage, or through Medicare Advantage prescription drug plans (MA-PDs), which offer prescription drug coverage that is integrated with the health care coverage that MA provides to Medicare beneficiaries under Part C of Medicare. Stand-alone PDPs must offer a basic prescription drug benefit, and MA-PDs must offer either a basic prescription drug benefit or broader coverage for no additional cost. If this required level of coverage is offered, PDPs or MA-PDs may also offer supplemental prescription drug benefits through enhanced alternative coverage for an additional premium, or MA-PDs may use rebates to buy down the Part D premium.

When implemented in 2006, the Part D-defined standard prescription drug benefit, with an average premium across PDPs and MA-PDs of about $24 per month for basic benefits, included an annual $250 deductible. Between $251 and the initial coverage limit of $2,250, the Part D plan was responsible for 75 percent of costs and the beneficiary paid a 25 percent coinsurance. Beneficiaries were responsible for all costs between the initial coverage limit and $3,600 in true out-of-pocket (TrOOP) costs,[2] which corresponded to $5,100 in gross drug spending. In 2007, in accordance with section 1860D-2(b) of the Social Security Act, the Centers for Medicare & Medicaid Services (CMS) revised the annual deductible, initial coverage limit, annual out-of-pocket threshold, and minimum copayments for costs above the annual out-of-pocket threshold. In 2007, the average premium rose to $24.21 per month for basic benefits and the annual deductible rose to $265. Similarly, the initial coverage limit rose to $2,400. However, in both years, catastrophic coverage begins at the attachment point or threshold of $3,600 in TrOOP. Costs in catastrophic coverage are split three ways, with the government providing

[2] A payment for a prescription drug constitutes an "incurred cost" and counts toward a beneficiary's TrOOP threshold only if the payment is made by or on behalf of the beneficiary. Assistance from a state pharmaceutical assistance program or nominal copayments for drugs received from a patient assistance program sponsored by a pharmaceutical assistance program generally count toward the TrOOP threshold. However, if the beneficiary is reimbursed for the costs by insurance, a group health plan, or other third-party arrangement, the costs do not count toward the TrOOP threshold. Payments for drugs that are not included on the plan formulary also do not count toward the TrOOP threshold (Covington & Burling, 2005).

reinsurance equal to 80 percent, the Part D plan covering 15 percent, and the beneficiary paying the greater of 5 percent coinsurance, or copayments of $2 for generic drugs and $5 for nongeneric drugs (in 2006).

Government payments to Part D plans are made through the following four mechanisms: (1) the direct subsidy equals the plan's standardized bid amount (for basic benefits), adjusted for the risk characteristics of the enrollee, minus the monthly beneficiary premium for basic benefits; (2) reinsurance subsidies are equal to 80 percent of the allowable reinsurance costs attributable to prescription drug costs after the Part D enrollee has incurred TrOOP spending at annual out-of-pocket threshold; (3) low-income subsidies are government payments on behalf of certain beneficiaries based on their income and asset levels that cover part or all of the premium subsidy amount and plan cost sharing for the basic benefit; and (4) risk-sharing arrangements involve symmetrical risk corridors in which the government either pays more of plan costs or recovers payments when a plan has allowable risk corridor costs above or below a target amount by certain percentages (CMS , 2005a).

1.2 Understanding of the Reinsurance Demonstration Project

This project focused on evaluating the impact of the Medicare Part D reinsurance demonstration. The MMA Conference Committee Agreement (House Ways and Means, 2003) noted that for all reinsurance programs, "the conditions under which the government provides reinsurance subsidies may create significant disincentives for private-sector plans to provide supplemental prescription drug coverage." To understand the Conference Committee's concern, imagine that a PDP were to offer an enhanced plan that eliminated the coverage gap in the standard benefit.[3] In 2006, the beneficiary first paid a $250 deductible, and then 25 percent coinsurance until the attachment point for catastrophic coverage of $3,600 in TrOOP was reached, which corresponded to $13,650 in total drug expenditures.[4] The plan in effect forfeited $6,840 in reinsurance subsidies ([$13,650 – $5,100] × 0.8 = $6,840). In addition, when plans offer beneficiaries supplemental coverage, by definition it takes beneficiaries longer to reach the attachment point for catastrophic coverage (which is defined by actual beneficiary TrOOP). Thus, for beneficiaries who may be high utilizers of drug services, the point at which they are eligible for fully reimbursed catastrophic coverage is delayed, and may represent a disincentive to join that plan. This example also illustrates the reason for the Committee's concerns that the Part D reinsurance program provides a significant financial disincentive for plans to provide supplemental coverage, and for some beneficiaries to enroll, which in theory could have jeopardized beneficiary choices of, and access to, supplemental prescription drug policies.

To address this concern, the Conference Committee suggested use of the Committee secretary's authority to "allow private sector plans maximum flexibility to design alternative prescription drug coverage." The Conference Committee specifically stated that CMS should

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3 Additional information on how benefit parameters are updated can be found at http://www.cms.hhs.gov/MedicareAdvtgSpecRateStats/downloads/2007_Part_D_Parameter_Update.pdf.

4 For the standard benefit in 2006, the beneficiary also first paid a $250 deductible, and then 25 percent coinsurance until the initial coverage limit of $2,250. Then the beneficiary paid 100% of the cost until the attachment point for catastrophic coverage of $3,600 in TrOOP was reached. However, under the standard benefit, $3,600 in TrOOP corresponds to $5,100 in total drug expenditures.

"demonstrate the effect of filling in the gap in coverage by reimbursing participating plans a capitated payment that is actuarially equivalent to the amount that plans would otherwise receive from the government in the form of specific reinsurance when an individual plan enrollee reaches the catastrophic attachment point."

As discussed above, under the Part D program, participating organizations have the option of offering basic versus enhanced benefits. There are also variants of basic and enhanced benefits. These variants of plan offerings are important in understanding the full range of options available to beneficiaries and are an element to consider in evaluating the impact of the reinsurance demonstration on the range and type of plan options. Among basic plan variants, the Part D **defined standard benefit** in 2006 consisted of (1) a $250 deductible, (2) 75 percent coverage (25 percent coinsurance) up to an initial coverage limit of $2,250, (3) a coverage gap where enrollees pay 100% of the cost, and (4) a catastrophic benefit of 95 percent coverage once out-of-pocket spending of $3,600 had been incurred. Sponsoring organizations also had the flexibility to offer an actuarially equivalent benefit to the standard defined benefit. The two types of actuarially equivalent plans were (1) standard coverage with **actuarially equivalent**[5] cost sharing and (2) **basic alternative coverage**.[6]

In addition to the defined standard benefit and its two actuarially equivalent variants, Medicare Part D plans are also able to offer **enhanced alternative** prescription coverage, which exceeds standard coverage. This enhanced coverage may include a supplemental benefit covering non-Part D drugs; reducing cost sharing; including increasing the initial coverage limit or reducing the deductible; provide coverage through the coverage gap; or any combination of these benefits. On February 25, 2005, CMS announced in the *Federal Register* (Vol. 70, No. 37) the opportunity to participate in the Part D Payment Demonstration. The primary goal of the demonstration was to increase the number of offerings of enhanced supplemental benefit plans with reduced cost sharing. The Instructions for the Part D Payment Demonstration (CMS, 2005b, 2005c) provide an overview of the design of the demonstration, including a description of the following three demonstration options: (1) fixed capitation option, (2) flexible capitation option, and (3) MA rebate option. All PDPs and MA-PDs are eligible to participate in certain options with the exception of the following: Program of All Inclusive Care for the Elderly (PACE), MA-PD employer-only plans, and employer direct contract plans.

Under the reinsurance demonstration, the capitation options replace the typical reinsurance subsidy of 80 percent of allowed costs after the beneficiary has $3,600 (for calendar year 2006) in TrOOP with a capitation amount reflecting the actuarial value of that subsidy if offered under the standard benefit. The distinction between the "fixed" and the "flexible"

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5 Actuarially equivalent plans have an overall structure similar to the defined standard benefit, but the cost sharing can differ from the 25 percent coinsurance under the standard defined benefit. These actuarially equivalent plans may have tiered copayments, for example of low dollar amounts for generic drugs and higher dollar amounts for preferred and nonpreferred brand-name drugs.

6 Under the basic alternative option, plans can have a different overall structure for the benefit, although they have to be actuarially equivalent to the standard benefit. Basic alternative plans can feature reductions in the deductible, changes in cost sharing [NOTE: it is not clear what this means], and a modification of the initial coverage limit that, in combination, provide coverage with an actuarial value equal to the defined standard coverage.

capitation options is that catastrophic coverage is required to begin at $5,100 of total drug expenditures for a beneficiary in the "fixed" option. The "flexible" option permits catastrophic coverage to begin at any point when the beneficiary has $3,600 in TrOOP. Thus, other things being equal, plans would tend to have less risk under the flexible option than under the fixed option, and beneficiaries with chronic, high-cost utilization of prescription drugs would tend to choose the fixed option over the flexible option. For MA plans that use rebate funds from the Part A and Part B bidding process to cover the additional cost of supplemental coverage, the MA rebate option permits supplemental benefits that fill in the coverage gap to count toward TrOOP. In this option, reinsurance will be paid in a manner similar to non-demonstration Part D plans (CMS, 2005b, 2005c).[7] All reinsurance demonstration plans are required to be "enhanced" plans meaning that they must provide benefits that exceed the actuarial value of the defined standard benefit package. However, demonstration plans have flexibility in what additional benefits are offered. Additional benefits can include lowering or elimination of plan deductibles, raising of initial coverage limitations, and/or offering coverage in the gap. Demonstration plans are not required to use a specific mechanism for offering enhanced benefits; they are not required to offer coverage in the gap.

1.3 Overview of the Evaluation Final Report

When mandated, the Reinsurance Demonstration was intended to encourage Part D plan sponsors to offer enhanced benefit packages by offering the option of up-front capitated reinsurance payments. In theory, the availability of this funding may have allowed some plans to offer enhanced benefits when they otherwise may not have. But the demonstration, by altering the reimbursement systems for participating plans, may have influenced a range of features and outcomes within the new Medicare Part D program. For example, we wanted to know why drug plans sponsors elected, or failed to elect, participation in the reinsurance demonstration, and what the advantages and disadvantages of participation were from the perspective of drug plan sponsors (*Federal Register,* Vol. 70, No. 37). From the beneficiary perspective, the evaluation focused on differences in how demonstration plan enrollees may have perceived the Part D program compared to non-demonstration plan enrollees. The evaluation also considered the availability of and enrollment in enhanced alternative benefit packages offered by drug plan sponsors, the costs they faced when enrolled (or not enrolled) in a demonstration plan, as well as enrollees' patterns of utilization. The evaluation also explored the impact of the demonstration on Medicare program overall costs, and whether or not enhanced plans (including both those participating and not participating in the demonstration) experienced biased selection.

The evaluation used a range of data collection and analytic approaches to examine the impacts of the demonstration. A series of demonstration site visits collected detailed information on why specific Part D plan sponsors chose to participate, or not participate, in the reinsurance demonstration. We conducted a series of focus groups with beneficiaries enrolled, and not enrolled, in Reinsurance demonstration plans. From these focus groups, described any observed differences in the experiences of beneficiaries in each of these groups. The evaluation also used a range of CMS administrative data to examine differences in benefits offered by demonstration and non-demonstration plans, as well as beneficiary responses to demonstration plan offerings as

[7] Demonstration plans must also offer a basic coverage plan, and MA-PDs choosing one of the capitated options are under the same requirement, but may buy down all or part of the additional premium with Part A/B rebate dollars.

measured through enrollment. The last phase of the evaluation considered differences between demonstration and non-demonstration enhanced plans on the costs and utilization of Medicare services.

During the course of the evaluation, a series of analyses and interim reports were prepared. These included in the following:

- Evaluation Design Report
- Demonstration Site Visit Report
- Demonstration Focus Group Report
- Demonstration Benefit Analysis Report
- Demonstration Enrollment Report
- Demonstration Cost and Use Report

This final report summarizes the key findings from each analytic interim report, and concludes with a summary chapter on the collective evidence of the impacts of the Medicare Reinsurance Demonstration on beneficiaries, Part D sponsoring organizations and the Medicare program.

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SECTION 2
DEMONSTRATION SITE VISITS

As part of the overall demonstration evaluation, RTI conducted site visits to 10 organizations participating in the Part D reinsurance demonstration. The purpose of the site visits was to have detailed discussions with organizations about their decision to participate in the demonstration and offer enhanced Part D benefits. We also asked site visit organizations about a range of other implementation, service area selection, benefit design, marketing and enrollment issues. A range of organizations were considered for site visits, including both PDPs and MA-PDs. We particularly targeted large organizations participating in the demonstration that offered Part D benefits through both MA-PD and PDPs. The main topics of the site visit discussions were the following:

- Reinsurance demonstration participation
- Design and characteristics of Part D products
- Marketing the Part D products to Medicare beneficiaries
- Implementation of Part D products and enhanced plans
- Perspectives on Part D and the demonstration

This section presents summaries of our findings from the site visit discussions organized by each of these discussion areas. To protect the confidentiality of the participating plans, we present comments only in summary form and do not attribute specific comments to individual plans.

2.1 Site Visit Organizations

Table 2-1 summarizes the 10 demonstration participants with whom we conducted discussions. We visited and prepared a case study on each with the exception of WellPoint; this organization provided detailed written responses to our protocol. Most of the national or large regional organizations—Aetna, Humana, United HealthCare/PacifiCare and WellPoint—offer both MA-PD and PDP products that participate in the demonstration. The exception is Kaiser, consistent with their traditional focus on the HMO product, offers only this model under Medicare and the demonstration. Local and smaller regional organizations we visited generally offered only MA-PDs, though some also offered PDPs.

Table 2-1
Description of demonstration site visit organizations and products

Demonstration site visit organization	Plan type	Core service areas	Profit/ nonprofit	Scope of Medicare products
Arcadian	HMO	Arkansas, Arizona, Texas, Washington	For Profit	Local
Aetna	HMO Local PPO Regional PPO PDP	New York, Maryland, New Jersey, Pennsylvania, California, Delaware, Virginia, Florida, Georgia, Illinois, Texas, Arizona, and Ohio	For Profit	National
Group Health, Inc.	PPO PDP	New York	Nonprofit	Local
Humana	HMO Local PPO Regional PPO PFFS PDP	National	For Profit	National
Independence Blue Cross	HMO Local PPO Regional PPO PDP	Pennsylvania	For Profit	Regional
Kaiser	HMO	National	Nonprofit	National
Northern Plains Alliance	Regional PPO PDP	Iowa, South Dakota, North Dakota, Minnesota, Montana, Nebraska, Wyoming	For Profit	Regional
People's Health Network/Tenet	HMO POS Local PPO	Louisiana	For Profit	Local
United HealthCare/ PacifiCare	HMO Local PPO Regional PPO PFFS PDP	MA products: Alabama, Florida, Illinois, Missouri, North Carolina, New York, Ohio, Rhode Island PDP products: National	For Profit	National
WellPoint	HMO Local PPO Regional PPO PFFS PDP	National	For Profit	National

2.2 Findings

Site visits were based on a detailed discussion protocol, which was forwarded to organizations in advance. It is important to note that the views expressed here are those of the organizations we visited, and therefore may include subjective statements rather than objective evidence.

The primary topics of the site visit discussions and the main findings were the following:

2.2.1 Reasons for Joining the Demonstration

A key element of our site visit discussions related to the impact of the reinsurance demonstration. Almost all of the organizations we visited believed the alternative reinsurance financing offered under the demonstration gave them the opportunity to offer a richer package of drug benefits or lower premiums than they would have been able to offer without the demonstration. Many organizations believed they would have offered some Part D enhancements even without the demonstration financing, depending on the competitiveness of the market, although a few organizations specifically stated that without the demonstration they would not have been able to offer a Part D standalone plan with gap coverage. However, there was almost universal agreement that the demonstration allowed either "better" enhanced benefits, lower monthly premiums—or both—because of the demonstration. We were told by many plans that by joining the Part D demonstration, organizations were able to use the upfront reinsurance payment to lower premiums, which made the enhanced plans more attractive to beneficiaries and thereby decreased the risk of adverse selection because of the higher enrollment. Without the lower premiums, many organizations believed it was likely that only beneficiaries with very high utilization rates would purchase enhanced plans. This was a particularly important point for organizations in the benefits and pricing of the standalone PDPs. Unlike the MA-PD plans, standalone PDPs do not benefit from the potential application of Medicare Parts A and B bidding "rebate" funding.

A common response from organizations with whom we spoke was that beneficiaries had a strong demand for enhanced benefits, especially for gap coverage. Without gap coverage, beneficiaries felt that they were paying something for nothing in the gap because they still had to pay a premium, but did not receive any coverage. Some organizations who traditionally had offered MA products with prescription drugs benefits commented that they had to offer an enhanced product to make their benefits as generous as their previous prescription drug plans. These organizations tended to be located in historically high Medicare reimbursement areas that offered $0 or very low premiums and no deductible plans with generous benefits including unlimited coverage for generics. Organizations in these markets commented that they could only continue to offer these types of products using an enhanced alternative plan. As well as lower premiums, gap coverage was a common enhancement made possible by the demonstration.

We learned that many organizations had specific monthly premium goals for their MA and PDP products. In some cases, MA-PD organizations believed strongly that only $0 premium plans would be marketable in their service areas. Other organizations had specific monthly premiums they could not exceed in order to meet enrollment targets. Therefore, for this large number of organizations, the demonstration reinsurance financing was critical in "making the numbers work" for offering an enhanced Part D product at the "target" monthly premium.

Some plans did see a downside to participation in the demonstration. Without the demonstration, they would be paid 80 percent of reinsurance-eligible costs (under the standard Part D reinsurance provision). With the demonstration, they are paid a set capitated amount, independent of actual drug costs. Thus, the demonstration required plans to take the risk for enrollees' catastrophic drug costs. When considering whether to participate in the demonstration, some plans balanced the catastrophic drug cost risk against the expected reinsurance payments under the demonstration. These plans concluded that the net gain from participating in the

demonstration varied by the degree of enhancement in their Part D products. Less enhancement implied less gain to participating in the demonstration. Only in Part D enhanced products where gap coverage was added were the expected reinsurance payments high enough to offset the reinsurance capitation risk created by the demonstration. A number of the plans we interviewed did not participate in the demonstration for benefit packages where the only enhancements were to eliminate the initial deductible or reduce co-payments. For these types of enhancements, expected reinsurance payments were not significantly higher under the demonstration, and were outweighed by the reinsurance capitation risk, or the demonstration was simply not considered very relevant.

2.2.2 Rationale for Choosing the Specific Reinsurance Options

The majority of organizations participating in the demonstration chose the flexible capitation option, though some MA-PDs elected the fixed capitation option. No organizations (at least in 2006) chose the MA rebate options (a number of organizations admitted they were somewhat confused by this alternative). Organizations that chose the flexible capitation reinsurance option cited the relative ease of administration for this method. Other reasons cited for the appeal of the flexible capitation option included a perception that there would be less adverse selection in using the flexible option over the fixed option because high-cost beneficiaries would choose plans with the fixed option.[8] Also, the flexible option postpones the beneficiary drug spending level at which plans become liable for 95 percent of drug costs (the catastrophic benefit) to above the fixed option threshold of $5,100 in total drug spending.

One plan argued that, under the fixed option, $5,100 of allowed claims costs triggers the catastrophic threshold. This is different from the $3,600 in TrOOP under the flexible option. This plan had set up its benefit design, operational claims processing systems, and marketing around TrOOP. Therefore, electing the fixed option would have required major changes to focus on allowed claims cost that it did not want to make. Organizations also said that the flexible option is easier to explain because it is based on $3,600 true out-of-pocket dollars.

We found that the larger organizations with in-house actuarial and analytic capabilities generally chose a demonstration financing option based on detailed modeling and simulation of the alternatives. Most, but not all, of these organizations chose the flexible capitation option. Smaller organizations tended to contract with actuarial firms for consulting services and relied on these consultants to recommend a demonstration financing option. In these cases, organizations tended to follow the advice of their consultants without necessarily having a detailed understanding of the tradeoffs between the different models. These organizations were quite straightforward in telling us that, under the pressure of the Part D implementation, they did not have the time to become more involved in the decision.

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[8] Under the fixed option with gap coverage, high drug utilizing beneficiaries would enter catastrophic coverage with its lower 5 percent coinsurance when their TrOOP—or true out of pocket costs—would be less than $3,600. Under the flexible option, they would have to pay $3,600 in out of pocket costs before receiving catastrophic coverage.

2.2.3 Factors in Determining the Part D Bid

Organizations with whom we spoke used a range of factors in determining their Part D bid. One common approach among many organizations was bidding based on an understanding of the markets in which they were operating, sometimes gained from prior experience offering MA, or even nonstandard Medigap, prescription drug products. Somewhat contrary to the current Medicare bidding process, most organizations tended to start their bid development process with a "target" premium for various markets. From that point, organizations tended to work backwards by considering what kinds of benefits and cost sharing could be accommodated for that price. Then organizations continued to work backwards, considering the benchmark premium for their areas, to determine their final bid price. Organizations acknowledged that this process might be somewhat different than what CMS had in mind, but argued that it was necessary to "do business in the real world." A number of organizations were quite clear that if they could not develop products with the right premiums (sometimes $0 per month) for specific markets, their products would not be viable.

Because many organizations with whom we spoke did not have extensive experience in pricing prescription drug benefits for the Medicare population, hiring of consultants and purchasing data was a common strategy, even among the larger organizations. Even with this assistance, many organizations described product and bid development in 2006 as "something of an educated guess."

2.2.4 Overview of Part D Standard and Enhanced Products

We found a wide variation in the design of Part D products, with decisions based on individual organizational goals. A common thread in Part D product development was an upfront decision by organizations as to their level of market penetration for Medicare PDPs and Medicare Advantage. The range and scope of Medicare Part D options tended to flow from this basic organization perspective. Some organizations report Medicare—including Medicare PDPs and Medicare Advantage—as major organizational initiatives and opportunities. These organizations tended to offer a wider range of product types (for example, within Medicare Advantage offering PPOs, PFFS, and HMOs, as well as expanding into standalone PDPs) and benefit packages to maximize enrollment and market penetration. Others reported a more conservative approach to Medicare. Some of these organizations reported constant pressure by parent companies to limit Medicare products. These organizations tended to offer Medicare Part D products similar to what they had offered in the past. However, a few of these more conservative organizations also decided to offer PDP products.

As noted, some organizations offered a range of plans to appeal to all market segments and maximize enrollment. Some organizations would have offered even more plans, but were discouraged from doing so by CMS regulations (CMS was concerned about beneficiary confusion caused by availability of too many plans). Other organizations, particularly some of the MA plans interviewed, offered fewer options, even only one Part D plan. These organizations stressed simplicity, avoiding risk segmentation, marketing advantages, continuity with previous drug benefits, and a desire for all enrollees to have generous drug benefits because that was clinically appropriate and a cost-effective way to practice medicine. MA-PDs felt they could effectively integrate Part C and Part D benefits, and that drug benefits could substitute for some Part C costs (e.g., avoid hospitalizations).

Of course, because we visited only demonstration participants, all these organizations had made a business decision to offer enhanced Medicare Part D products. The predominant reason given for this decision was they felt enhanced products were likely to be in demand by potential enrollees. Most of the MA participating organizations we visited specifically used Medicare Parts A and B rebates to fund enhanced benefits. Organizations offering PDPs offered enhanced options because they felt these would be popular with beneficiaries. In general, across most of the plans, organizations did not believe that basic plans, with no additional coverage expansions either in the coverage gap, reducing initial deductibles, and/or through expanded initial coverage limitations, would be the choice of many Medicare beneficiaries. In a few cases, organizations told us that they believed nonenhanced prescription drug coverage was simply a poor design that would not meet their goal of offering the best medical care to their enrollees.

Few plans reported any intention of making major benefit design changes in 2007, either to their enhanced or basic plans. However, it should be noted that this is generally not feasible under Part D. Approved benefit packaged cannot change during a coverage year, and significant changes to formularies are also not allowed by CMS. Most organizations felt they needed to give their current designs more time before making major changes, although cost pressures were causing some plans to raise premiums or reduce benefits for 2007. No organizations with whom we spoke had any plans to change benefits, such as formularies, mid-year unless there was a need to add new drugs to their formularies. One exception we noted was from two organizations that planned to discontinue or restructure their highest benefit options. Organizations that offered a relatively high level of benefits (such as more extensive coverage in the gap) experienced adverse selection that may make these products unsustainable at affordable premiums. One of the organizations who had this experience attributed this outcome to the surprisingly effective use of various prescription drug pricing tools by high prescription drug utilizers. Premiums on high-option plans were being significantly raised for 2007 in some cases to reflect the adverse selection that was experienced. Also, several insurers found that their "mid-option" plan was not as successful as their high or low option plans. Price sensitive beneficiaries chose the low option plan, which also receives auto-enrollees, while beneficiaries with high drug utilization or who wanted the best coverage chose the high option plan. The mid-option plan was not seen as attractive by either group. In response, several insurers are making their mid-option plans more attractive by reducing the premium gap between their low and mid-options, or improving the benefits of their mid-option.

2.2.5 Premiums, Cost Sharing, and Formulary

A key element of the design of benefit packages was the monthly premium. Organizations believe this is one of the primary focal points for potential enrollees. All organizations appeared to set the monthly premium with great care, looking particularly at how the monthly premium would position them in their respective markets. Some plans noted that specific premium levels (for example, in some markets, $0 premiums for Medicare Advantage products) were absolutes for defining viable products. It was noteworthy that the two organizations with the richest gap coverage had markedly different premiums, one with $0 (an MA-PD) and the other with over $100 (a standalone PDP).

Beyond premiums, strategies for defining formularies and drugs covered were also an important aspect of benefit design across all products. Most organizations with whom we spoke

had closed formularies for their low option plans, meaning they have specific lists of covered and noncovered drugs. Higher-option plans often covered a broader range of drugs. However, several organizations noted that the covered drugs listed on formularies did not fully measure access to specific drugs, because that was also affected by other drug utilization and management policies and exceptions/appeals/denial processes.

Most organizations also used drug tiers with different cost sharing by beneficiaries within the tiers. The common approach was to place generic drugs in the lowest tiers with the lowest cost sharing. Brand name drugs with higher cost sharing were placed in upper tiers. Specialty drugs were placed in the highest tiers. Variation among organizations was found primarily in the number of tiers. Many plans had three or four tiers, though one large organization only used two drug tiers. Organizations tended to agree that having too many tiers, although a potential way to control drug utilization, is too confusing for beneficiaries, and this confusion outweighed potential benefits. We did find that smaller organizations, which relied on large national pharmacy benefit management (PBM) companies, reported following the benefit structure of these PBMs rather than designing their own pharmacy products.

There was a wide range of variation in the type and level of cost sharing that plans applied within the tiers. Set co-payments (for example, $5 per prescription) were most common among lower drug tiers that often included generic drugs. Use of coinsurance (for example, 10 percent of the cost of the drug) was more common in the higher tiers. However, plans sometimes used only co-payments in all tiers. The actual amounts of the cost sharing varied widely.

In general, organizations universally described the cost sharing as a source of confusion for Medicare beneficiaries. Organizations reported spending a great deal of time explaining these elements of the benefit design to their enrollees. Of particular concern was confusion over what cost sharing applied to the coverage gap. Organizations reported that many enrollees believed only their cost sharing, and not the total cost of the drug, determined whether they entered the coverage gap. Some of the larger organizations devoted significant resources to sending monthly beneficiary notices on enrollee coverage status to try and address this confusion.

2.2.6 Cost Containment and Utilization Management Strategies

Organizations with whom we spoke use many strategies to help manage the drug utilization of its enrollees. Encouraging enrollees and physicians to use generic drugs was the most prevalent cost containment strategy across all plans. As noted above, smaller organizations followed the protocols of their pharmacy benefit management subcontractors. Use of these strategies tend to be at the organizational level, and are not applied only to enhanced products under the demonstration, though at least one large organization did apply different utilization strategies for their high-end demonstration plan because there are more drugs on the open formulary. Common strategies include step therapy, quantity limits (e.g., Viagra, 6 tablets only), pre-authorization, and mandatory or first use of generics. Plans did differ in their application of utilization management strategies depending on the particular drug and prescription drug tiers.

For high-cost beneficiaries, particularly beneficiaries identified with specific diseases, organizations provided a Medication Therapy Management (MTM) program that was required by CMS. In this program, RNs and pharmacists review the targeted prescription drugs for these

beneficiaries. Another approach employed by some plans (particularly Medicare Advantage plans) focuses on physician education as a drug utilization strategy. Physicians are educated to know which drugs are best for the enrollee and what alternative drugs are available. Organizations that use this approach employ drug education coordinators. They evaluate physician prescribing patterns, profiling physicians and providing feedback to them. While it might theoretically be more feasible to apply utilization management in an MA-PD than in a standalone PDP, organizations with both types of drug plans were generally consistent across plans in their utilization management strategies.

2.2.7 Pharmacy Network

We found little variation among organizations with respect to pharmacy networks. This is not surprising given the requirement that all plans meet TRICARE pharmacy access network standards, which are quite broad. Organizations almost universally will allow enrollees to fill prescriptions at any pharmacy willing to accept their pricing and policies. In general, pharmacy networks are very large and include nearly all of the pharmacies in the relevant market area or even nationally. The one exception was an MA organization that owned its own pharmacies, which are the primary source for its enrollees' prescriptions. Organizations with whom we spoke have arrangements with large pharmacy chains, and will include local pharmacies whenever possible. Organizations report that they willingly include additional pharmacies at enrollee request.

2.2.8 Knowledge Level of Beneficiaries

In general, most organizations told us that beneficiaries did not understand Part D and they really needed better knowledge of what was being offered. They did not feel there was any real difference in the level of understanding among enrollees in demonstration versus non-demonstration products.

It was common for organizations to report that their marketing representatives do a large amount of education, explaining what Medicare Part D would cover as well as the Parts A/B benefits under Part C. Organizations generally felt that implementation of Part D was a great boost to get beneficiaries to re-think their options, including Medicare Advantage products. Organizations did admit that there is something of a mix of beneficiary knowledge. One plan described beneficiaries this way: "Some are in the know from being online, and some are completely oblivious." Another organization, while agreeing that the overall level of beneficiary knowledge was low, was very surprised at the number of beneficiaries (or their advocates) who clearly made some attempt to use the Medicare or comparative Web sites. One large organization told us that 40–60 percent of seniors calling their organizations say they have access to the Internet, which "amazed" them.

When we visited most organizations, in the summer and early fall, they were beginning to have more beneficiaries entering the coverage gap. Organizations anticipated that many beneficiaries did not completely understand this aspect of Part D. A common misunderstanding reported by organizations through their interaction with beneficiaries was what costs applied towards entering the coverage gap. Most enrollees believe the coverage gap is triggered by their cost sharing, not the total cost of drugs. They do not understand it and are surprised when one month a prescription is covered and the next month it is not.

2.2.9 Strategies to Attract and Retain Enrollees

Most organizations reported that they rely on loyalty and customer service to retain their enrollees. A number of organizations, particularly the larger organizations, stress that they are in Medicare for the long run.

A few plans stressed their brand names to attract and retain beneficiaries. These organizations believe it is their name that many beneficiaries know and trust and that they have a following of loyal customers that they hope will purchase Part D coverage from their organization.

Another small group of organizations had specific retention programs, including dedicated staff who reach out to newly enrolled members to make sure they know what is coming, what to do about problems, explain the rules, give them basic information, and keep in touch.

2.2.10 Part D and Medicare Advantage Marketing

Organizations felt that, overall, Part D was helpful for Medicare Advantage marketing/enrollment because Part D is offered through private plans and educates beneficiaries about private plans in Medicare. Part D allows plans to cross-market their Part C MA plans to beneficiaries, and beneficiaries gain more familiarity with Medicare Advantage organizations, increasing their likelihood of enrolling in an MA plan. Also the Part C rebate dollars allow organizations to offer Part D cheaper through an MA plan than a standalone plan, which further increases beneficiary interest/enrollment in MA.

However, other organizations thought Part D created challenges for organizations with substantial existing Medicare Advantage enrollment. For these organizations, the goal was to convince beneficiaries to make no changes and remain with their existing plans. One such organization, like others with large existing Medicare Advantage enrollment, did outreach to its existing members about Part D; it said "don't worry, you will get Part D through your plan, you don't need to do anything." Another organization reported many of their existing beneficiaries mistakenly enrolled in standalone PDPs even though this MA-PD offered generous Part D coverage at a zero premium. Because of the large amount of information the beneficiaries were receiving regarding the need to sign up for Part D, some beneficiaries were confused and enrolled in standalone PDPs. Finally, a few MA-PDs told us that because now Medicare beneficiaries can receive prescription drug coverage without enrolling in MA (through a standalone PDP), they thought they had lost some of their MA enrollment to fee-for-service.

2.2.11 Implementation and Operational Issues/Problems in Launching the Part D Products

All the organizations with whom we spoke cited a range of implementation and operational issues related to the first year of the Part D program. These issues, however, rarely had any relationship to the demonstration per se. Organizations told us that while the demonstration options added some complexity to the overall Part D implementation, the pressures of the program as a whole were so great that the demonstration added only one additional issue to think about. The larger organizations told us that, through their government

relations activities, they were expecting something along the lines of the reinsurance demonstration and therefore began basic planning relatively early on in their Part D implementation process. Other smaller plans seemed to become aware of the demonstration options later on, and then relied on consultants to help them adjust their benefits and bids accordingly. In reviewing the distribution of enhanced benefit plans, we did notice that a number of organizations chose to offer enhanced products outside the demonstration. We asked the demonstration participants for their theories on this unexpected outcome. The most prevalent response was that, in the rush to implement the Part D program as a whole, some organizations may not have had the time or resources to address the possibility of reinsurance demonstration participation. No participating organization offered a substantive reason why it might be in the interest of insurers to offer enhanced Part D benefits outside the demonstration, unless the enhancements were only below the initial coverage limit and did not involve filling in the coverage gap.

2.2.12 Views of Early Success

For most organizations, success was defined in terms of enrollment in their products. The majority of organizations with whom we spoke, particularly the large organizations who marketed aggressively, defined their Part D products as highly successful. However, a few organizations we visited were slightly disappointed in their enrollment figures. No organizations had specific plans to abandon the Medicare Part D program. Organizations were also cautious about declaring either success or failure after only one year of Part D experience.

A few plans that offer a range of enhanced benefits reported experiencing adverse selection in their "high end" plans. Because of this worse than expected selection, organizations may either raise premiums for these high benefit plans and/or discontinue them. Also, some "mid-option" plans had not drawn as much enrollment as anticipated, and were being repositioned.

2.2.13 Overall Perspectives on the Part D and the Demonstration

Despite having a number of concerns and suggestions for changes in the overall Part D program, all the organizations with whom we spoke thought that Part D was a good program and an important new part of Medicare. These organizations believed that CMS has done, in general, a good job of contending with a very difficult, very aggressive implementation. Most organizations compared implementation of the Part D program favorably when compared to implementation of the programmatic changes mandated by the Balanced Budget Act of 1997.

Organizations were universally supportive of the reinsurance demonstration and, as noted earlier, thought the financing available under the demonstration allowed them to offer better enhanced benefits for lower premiums. Most organizations said they would probably have offered some form of enhanced benefits even without the demonstration, but were clear the enhancements would have been less or the premiums and cost sharing would have been higher. In our site visits, we did not find that the demonstration had any real effects on the implementation issues that arose, or the marketing and education strategies organizations used.

Overall views of early success of the demonstration were positive among the organizations we visited. Most organizations thought that so far, the demonstration overall has

been a success. Most of the organizations have met or exceeded their enrollment goals set before the demonstration started. However, many organizations were only cautiously optimistic with respect to the financial success of the demonstration, mainly because of more adverse selection for their demonstration products than expected. These organizations had a "wait and see" attitude with respect to the ultimate success of the demonstration.

One overriding theme we heard was related to the costs of the implementation process for Part D, which was reported as very, very expensive. Organizations described the bidding process as particularly expensive and resource-intensive. We heard this from organizations of all sizes, though smaller organizations found this to be a particularly acute problem. Organizations hoped that these costs would eventually decrease as the program matures and as CMS guidance and policies stabilize. If the administrative costs of participation do not decrease, organizations report that these costs could be reflected increasingly as decreased benefits or increased premiums for beneficiaries.

2.2.14 Perspectives on Non-Demonstration Part D Organizations

An unexpectedly large number of organizations chose to offer enhanced Part D plans without participating in the demonstration. This raises questions about the necessity of offering the alternative reinsurance mechanisms available under the demonstration for ensuring the availability of enhanced Part D products. During the summer of 2007, RTI conducted telephone discussions with non-demonstration Part D plans who offer enhanced products. Our goal was to understand the reasons why organizations chose to offer enhanced plans without participation in the demonstration. We identified several organizations that fit into this category, and solicited either written or oral feedback. Two organizations chose to respond to our questions through brief telephone discussions.

While there were some subtle differences between the two organizations in their reasons for not participating in the demonstration, a common underlying reason for non-participation was timing of the demonstration application. Organizations reported that they were already at maximum operational capacity in 2005, given the due dates for Part D implementation and submitting inaugural Part D bids. Staff working in their Medicare products were already overwhelmed by all the information related to Part D they were required or asked to review, which left little time and resources available to consider this optional payment demonstration. One organization recalled that the different options available under the demonstration were complex, and there was very limited time to interpret the different financing options and come to a rational decision. This organization also noted that it would have been helpful had CMS offered a set of financial impact scenarios or "what ifs" to help in their decision making process. One of the two plans we spoke with is a large national organization, so relative organizational size seems not to have been a determining factor in demonstration participation.

Another issue raised was the concern that the reinsurance demonstration essentially placed more risk on participating organizations. Non-participating organizations seemed hesitant to forgo the opportunity to reconcile actual experience and expenditures in calculating reinsurance payments. Also, non-participating organizations seemed unclear about the financial implications of each reinsurance demonstration options. Plans noted that without any financial scenarios to draw from, the decision to choose an option was too difficult and cumbersome at the

time. The rebate option created even more confusion and didn't seem feasible, particularly since the Part D deductible could not be waived under this option. One organization we spoke with recalled an added cost of $3.13 per member per year (PMPY) in order to ensure budget neutrality under the demonstration reinsurance capitated payment arrangement. This "fee" was viewed as a negative to participation.

When asked whether these organizations considered entering the demonstration during more recent bid years, one organization admitted that they forgot to re-evaluate this option for their most recent bid season (2008 plan year). The other organization stated that they will continue to monitor the demonstration going forward, but that their experience in offering Part D plans did not yet seem suitable for participating in the demonstration. Both organizations will take the demonstration under greater consideration in future bid years should it still be offered.

SECTION 3
MEDICARE PART D BENFICIARY FOCUS GROUPS

As part of the overall demonstration evaluation, RTI conducted focus groups with beneficiaries in four regions across the country, including one rural area. The purpose of the focus groups was to determine whether there were differences in the experiences of beneficiaries enrolled in demonstration plans versus enrollees in non-demonstration plans—differences beyond the varying benefit levels. In particular, we were interested in whether we could detect differences in how beneficiaries chose their plans, estimates of the level of information available, their ability to understand and utilize their Part D benefit, and their relative satisfaction with their plans. The main topics of the focus group discussions were the following:

- decision process for choosing a Part D plan
- beneficiary experiences with Part D plans
- beneficiary satisfaction with Part D plans.

This section summarizes our findings from the focus group discussions organized by each of these discussion areas.

3.1 Overall Focus Group Design

For this project, RTI conducted a total of 12 focus groups in four locations: New York, NY, West Palm Beach, FL, Los Angeles, CA, and Greybull, WY. The first three cities were chosen because they had a large number of demonstration participating and non-participating plans, and a sufficient enrollee population both in demonstration and non-demonstration plans and because they represented different geographic areas of the country. The fourth location, Greybull, WY, was chosen as it is a distinctly rural site. Because beneficiaries residing in rural areas face challenges in terms of availability of plans and information, we believed it was important for this evaluation to solicit the views of rural beneficiaries.

To conduct the beneficiary recruiting, arrange for logistics, and moderate the focus groups, RTI subcontracted with The Henne Group. Jeff Henne, President of The Henne Group, has extensive experience as a focus group moderator for research projects in health, pharmaceuticals, and social services.

To be eligible to participate in the focus groups, beneficiaries had to be presently enrolled in a Medicare prescription drug plan during the calendar year 2006. Potential participants were recruited into one of three groups:

- Group A: enrollees in a demonstration Medicare Advantage prescription drug plan (MA-PD)
- Group B: enrollees in a demonstration standalone prescription drug plan (PDP)
- Group C: enrollees in a non-demonstration MA-PD or PDP.

Because demonstration participating plans had to offer an enhanced product, by definition, both Group A and Group B participants were enrolled in an enhanced drug plan. Specifically, Group A participants were enrolled in a prescription drug plan administered through a Medicare Advantage plan (e.g., local health maintenance organization [HMO], local preferred provider organization [PPO], regional PPO, private fee-for-service [PFFS]). Therefore, these participants were receiving both their medical coverage and prescription drug coverage through the same Medicare Advantage plan. Group B participants were enrolled in a standalone PDP for their drug coverage but were still enrollees of Original Medicare (Parts A and B). Participants in this group may also have been enrolled in a Medicare supplemental plan (Medigap) that provided additional coverage for their medical care, or been receiving additional benefits through an employer. Group C participants were enrolled in some type of prescription drug plan that was not participating in the demonstration. These drug plan types included basic (basic plans include defined standard, actuarial equivalent, and basic alternative) or enhanced MA-PDs or standalone PDPs.

3.2 Focus Group Recruitment

The Henne Group, with assistance from RTI staff, recruited participants for the focus groups in all four locations. We identified potential participants using an extract from the Medicare Beneficiary Database (MBD) supplied by CMS. This database included a list of beneficiaries enrolled in demonstration and non-demonstration plans, who were residents of the county (or counties) within a reasonable distance to the focus group location. For the Wyoming focus groups, beneficiaries resided in the four-county area in the north central region of the state. For the West Palm Beach focus groups, beneficiaries resided in Palm Beach County. For the New York focus groups, beneficiaries resided in New York County, which includes the boroughs of Manhattan and Bronx. For the Los Angeles focus groups, beneficiaries predominately resided in the Santa Monica area of Los Angeles County.

The initial beneficiary files included names, home addresses, and plan type, but no phone numbers. RTI worked with Telematch, Inc. to provide us with a batch file of telephone numbers. We provided these names and phone numbers to The Henne Group to place phone calls to beneficiaries' homes. No other means of recruitment (e.g., flyers, mailers, newspaper ads, etc.) were needed to recruit the number required for each focus group session.

Potential participants were asked if they were currently enrolled in a Medicare Part D drug plan. We could verify this information from our MBD source file, but we wanted to recruit participants who were at a minimum aware they were enrolled in Part D. Our screener questions to verify eligibility were deliberately simple, given the complexity of the Medicare Part D program and potential confusion that could have been created had we asked a detailed set of eligibility questions. During the screening process, we explained to participants that they would need to arrange for their own transportation to the facility. If public transportation was provided near the facility, we shared that information upon request.

Logistics and facilitation of the focus groups was also handled by the Henne Group. We used professional meeting facilities specifically designed for focus groups and other data collection activities (e.g., Murray Hill Center and WAC Research) in all four locations.

RTI developed a focus group protocol to use as a guide across all locations. This protocol was reviewed and approved by CMS prior to the start of our focus groups. The protocol included the major discussion topics covered in each focus group session. Each session lasted approximately 75 minutes and none exceeded 90 minutes. Each session was audio-recorded for note-taking purposes. Focus group participants were offered $75 for their participation in three of the four locations (New York, Los Angeles, and West Palm Beach). Participants were offered $100 for their participation in the Greybull, WY location to compensate for their longer travel times to reach the facility. Some participants drove over 60 miles one way to Greybull, which was required given the region is very rural. Participants were also provided with drinks and light refreshments during the sessions, and parking fee reimbursements if applicable.

Jeff Henne of The Henne Group facilitated all focus group sessions. Mr. Henne has had extensive experience as a focus group moderator for public health and pharmaceutical clients. Participants were told to speak one at a time and could freely express their opinions and experiences with Medicare Part D without their responses being tied to their insurance coverage in any way. We assured confidentiality of their identities, and explained that any quotes used for reporting would not be associated back to their names.

We used a thematic approach to analyze the data coupled with a careful review of the audio-tapes to assure quotes recorded were reported accurately. This approach allowed us to compare responses to discussion items or concepts across plan types or experiences with certain aspects of Part D, as well as provide specific participant quotes and examples.

3.3 Characteristics of Focus Group Participants

A total of 131 Medicare beneficiaries participated in the focus groups across the four locations from mid- October through early December 2006. Approximately 56% of participants were women. The majority of participants were seniors eligible for the program as they aged in to Medicare upon turning 65. A small number of beneficiaries (one or two per focus group) were disabled. As set by our design, one-quarter of all participants resided in several rural counties located in northwest Wyoming, one-quarter resided in Palm Beach County, FL, one-quarter resided in the Manhattan or Bronx boroughs of New York City, and one-quarter resided in Los Angeles County, CA.

For Group A, all participants were enrolled in a Medicare Advantage prescription drug plan (MA-PD) that offered a payment demonstration enhanced drug plan. For Group B, all participants were enrolled in a standalone prescription drug plan (PDP) that offered an enhanced drug plan also participating in the Part D payment demonstration. For Group C, participants could have been enrolled in any type of basic or enhanced prescription drug plan (MA-PD or standalone PDP) that did not participate in the payment demonstration. Thus, Groups A and B were Part D payment demonstration enrollees and Group C were participants enrolled in some type of basic or enhanced drug plan not participating in the demonstration.

3.4 Regional Characteristics of Focus Group Locations

Greybull, WY. Our first set of focus groups were conducted in this small rural town in northern Wyoming. Participants were recruited from several counties surrounding Greybull, including Big Horn, Park, Hot Springs, and Washakie counties. These counties are outside of any

metropolitan statistical areas (MSA) or any other classification of combined statistical areas; thus, the region was quite rural. A number of participants in these groups reported receiving some government assistance, such as coverage under Medicaid or other State program. Residents in these counties did not have access to any Coordinated Care Plans (e.g., HMOs, PPOs, point-of-service plans [POSs]) under Medicare Advantage offering a demonstration enhanced drug plan. The only MA offering participating in the demonstration within these counties was a Private Fee-for-Service (PFFS) plan sponsored by Humana. Residents were also eligible for a Regional PPO plan offered by Blue Cross Blue Shield (BCBS) of Wyoming (partnered with other state Blue plans through the Northern Plains Alliance), but this organization's drug plan options did not include an enhanced plan through the demonstration.

West Palm Beach, FL. Our second set of focus groups were conducted in West Palm Beach, FL. This area of southern Florida attracts a large number of Medicare beneficiaries who retire to Florida from northeastern and mid-Atlantic States. Many participants have been living in Florida for 20 to 30 years, and others have moved into this area of Florida as recently as 2 years ago. Most participants described themselves as reasonably comfortable financially. Palm Beach County has a high Medicare managed care penetration rate and competition is therefore high among Medicare Advantage Organizations and standalone PDPs to attract seniors into a Part D plan. However, Humana was the only local CCP to offer an MA-PD participating in the payment demonstration for Palm Beach County. Participants had a host of national and regional-based PDPs to choose from in this area.

New York, NY. Our third set of focus groups were conducted in New York, NY. Participants resided in either the Manhattan or Bronx boroughs of New York City. Many participants described themselves as long term New York residents. A number of participants in these focus groups described themselves as being very cost conscious, and about a third of the group described needing some public assistance in addition to Medicare to help pay their medical costs. Similar to southern Florida, New York has a high Medicare managed care penetration rate. Medicare physician payment is high in New York and market competition is fierce, so most Part D plans were zero or near zero premium.

Los Angeles, CA. Our fourth and final set of focus groups were conducted in Los Angeles, CA. Participants resided predominately in the Santa Monica and West LA areas of southern California. A couple of the participants who were not enrolled in a demonstration enhanced plan described receiving some public assistance in addition to Medicare to help pay their costs. Kaiser Permanente was a dominant MA player in the LA area, particularly since all Group A participants were members of Kaiser's MA-PD. Similar to southern Florida and New York, Los Angeles has a high Medicare managed care penetration rate. Participants had a host of national and regional-based PDPs to choose from in this area.

3.5 Summary of Focus Group Findings

A number of perspectives were expressed across all three focus group types about the Part D program as designed in the MMA by Congress. These more universal findings, in which we observed no differences among enrollees in demonstration versus non-demonstration plans, were as follows:

- **The Part D program is confusing.** Participants in all focus groups found the program complicated and difficult to understand. Even beneficiaries in relatively sophisticated markets, with relatively long standing experience with multiple Medicare coverage options, reported that they had difficulty understanding the Part D program and making a plan choice. Confusion over issues such as what expenditures count towards the initial coverage limit (many beneficiaries across all sites thought only enrollee cost sharing counted, not the full cost of the drug), whether there was any coverage in the gap, and existence of plan specific formularies were nearly universal.

- **The coverage gap should be eliminated.** Beneficiaries thought this was a real hardship for beneficiaries, who have a hard time affording their drugs or even planning their costs.

- **Medicare beneficiaries should pay less for drugs.** The groups differed, however, on how they thought this should be accomplished. Participants in Groups A and B often suggested that the government should directly negotiate with the pharmaceutical drug makers for cheaper prices along the lines of the Canadian model. Participants in Group C were less specific but thought prices were too high.

- **Beneficiaries were eventually able to get needed medications.** We often heard that this process could be complicated, and that the prices that were paid for some drugs (particularly brand name) were sometimes much higher than they expected Still, across groups, it appears that beneficiaries generally felt they were able to get what they needed. A few beneficiaries who participated in the focus groups had experienced appealing denials of coverage for specific brand name drugs. Most reported that they were eventually successful but reported that this process took what they felt was a long time.

Despite these commonalities, we noted a number of important differences among the enrollees in demonstration versus non-demonstration plans:

- **Enrollees in demonstration plans were much more aware of having a range of choices, particularly choices among basic and enhanced benefit packages.** Demonstration plan enrollees across all sites (Groups A and B) appear to have engaged in a much more deliberate process for making a Part D plan choice. This may be related to an observation that enrollees in the demonstration enhanced plans were more likely to describe themselves as holding professional jobs, and may therefore have had higher levels of education. Higher levels of education may theoretically have better prepared beneficiaries to make informed choices.

- **Enrollees in demonstration plans were generally more knowledgeable about Part D plan benefit details.** With the exception of non-demonstration plan enrollees in West Palm Beach, Group C enrollees knew much less about key Part D plan features (such as the coverage gap).

- **Enrollees in the demonstration plans, based on their self-descriptions, appeared on average to be healthier and consume fewer drugs than the non-demonstration enrollees.** It was expected that enrollees in demonstration enhanced plans to have greater drug needs compared to the non-demonstration enrollees who were overwhelmingly enrolled in basic plans. The opposite appeared to be true; that demonstration plan enrollees described themselves generally as needing fewer drugs than many of the non-demonstration enrollees, who commonly described themselves as having complex medical needs and requirements for a wide range of drugs. This finding might be explained by a greater representation of higher income beneficiaries, with better on average health status, having a greater ability to pay higher enhanced plan premiums.

The limitations of focus group analysis do not allow us to definitively identify reasons for these observed differences among the groups. However, we were able to identify a number of potential explanations. First, enrollees in demonstration plans are, by definition, all enrolled in enhanced plan products. These products are often (but not always) more expensive than comparable products available in the marketplace. Therefore, beneficiaries willing to pay additional money may also have been more willing to invest time and energy in gathering information to make an informed choice. Second, enrollees in the demonstration plans were much more likely to describe themselves as having professional jobs. These groups also appeared to be more highly educated and were therefore more able to gather and understand the necessary information needed to become aware of program options, benefits and costs. Third, though we have no direct evidence, organizations that chose to participate in the demonstration in order to offer enhanced benefits might also have done a better job of educating potential enrollees about their products and those product features. Finally, beneficiaries receiving government subsidies were eligible to enroll in only basic plans (unless they chose to pay higher premiums, which few have). These beneficiaries of lower socioeconomic status may have either been auto-assigned to plans, and/or because of the subsidies they receive, had little incentive to choose carefully among plan choices.

SECTION 4
PLAN BENEFIT DESIGN

In this report for the Part D Payment Demonstration Evaluation plan benefit design analysis, we conducted an analysis of the 2006 and 2007 Part D benefits. The analysis focused on variation between reinsurance demonstration and non-demonstration plan packages, as well as changes in benefits between 2006 and 2007. We compared benefit designs of the three basic plan variants, as well as enhanced plans that were involved in the reinsurance demonstration and those not involved in the demonstration. Most plans participating in the demonstration chose the flexible capitation option. No prescription drug plans (PDPs) and few Medicare Advantage prescription drug plans (MA-PDs) used the fixed capitation option. This option required that plans begin catastrophic coverage after $5,100 in drug expenses, while the flexible capitation option mandated catastrophic coverage begin at $3,600 in beneficiary spending, which corresponds to $13,650 in drug expenses.[9] Only 34 plans used fixed capitation in 2006, and this number was reduced to only 10 Medicare Advantage (MA) plans in 2007. To date, no plans have chosen the MA demonstration rebate option.

Key benefit design-related questions for the evaluation project are as follows: Is there evidence that participation in the Part D payment demonstration resulted in more generous and greater variety of enhanced benefit packages? To begin to address these questions in detail, this section compares various benefit features of basic, non-demonstration enhanced, and demonstration enhanced plans. We found some differences between demonstration and non-demonstration enhanced plans. For example, demonstration enhanced plans tended to have higher premiums than non-demonstration enhanced plans. Also, PDP demonstration plans were more likely to offer coverage in the coverage gap than non-demonstration plans. Our "generosity" analysis found that, on the whole, demonstration plans are less expensive for beneficiaries of all types. However, we also found many enhanced benefit plans that *do not* utilize the reinsurance demonstration. This suggests that, even without the reinsurance demonstration, there would be variety in enhanced benefit plans, including plans that provide gap coverage.

4.1 Research Questions and Methods

The purpose of the plan benefit design analyses were to answer two basic research questions:

1. How do benefit offerings differ across demonstration and non-demonstration options?

2. Is there evidence that the Part D payment demonstration resulted in more generous enhanced benefit packages?

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[9] Under the flexible capitation option, catastrophic coverage begins once a beneficiary incurs a total of $3,600 in true out-of-pocket (TrOOP) costs. First, the beneficiary pays a $250 deductible. Then, to reach the $3,600 total, the beneficiary must incur an additional $3,350 in TrOOP ($3,600 – $250 = $3,350). As an example, assuming an enrollee in a plan that averages 25 percent cost sharing and coverage for formulary drugs in the gap, this would require an additional $13,400 in total drug spending ($13,400 × 0.25 = $3,350). Combined with the initial deductible of $250, the total drug spending required is $13,650 ($13,400 + $250 = $13,650).

The first question examined how the different reinsurance options in the demonstration affected offerings between demonstration and non-demonstration plans. The second question evaluated whether the demonstration may increase the generosity of benefits offered to Medicare beneficiaries. We compared demonstration and non-demonstration benefit design for the following elements:

- Premiums.
- Cost sharing.
- Benefits provided in the coverage gap.
- Overall plan generosity.

Within these core benefit design elements, we compared basic (all non-demonstration) versus enhanced (demonstration and non-demonstration, as well as by demonstration reinsurance type) plans, and PDPs versus MA-PDs. We compared these core benefit elements among the basic and enhanced plan types described in the introduction. To review, the Medicare Part D plan benefit variants are as follows:

- Basic–defined standard benefit.
- Basic–actuarially equivalent.
- Basic–basic alternative.
- Enhanced alternative–non-demonstration.
- Enhanced alternative–demonstration, fixed capitation.
- Enhanced alternative–demonstration, flexible capitation.

Readers should note that we did not include in our analysis the third demonstration option: the MA rebate option. As of 2007, no plans elected the MA rebate option. Because all of the plan variants can be offered by either PDPs or MA-PDs, we organized the benefit tables to distinguish not only plan variant but also type of sponsoring organization. All of these possible variations on plan types are available to beneficiaries, though not in all regions and not by both PDP and MA-PD organizations. Finally, we prepared separate analyses comparing key benefit design elements among different MA-PD option types (e.g., local preferred provider organization [PPO], regional PPO, health maintenance organization [HMO]). We decided to analyze this full range of plan variants because, while there are many similarities between options, there are also some small differences. Information on differences, or lack of differences, among this full range of options may provide policy makers input on whether these distinctions, originally defined when Part D was implemented, continue to be meaningful from a policy perspective.

Our unit of analysis throughout this report is the "plan" rather than "contract." We analyzed unique benefit packages, noted in the CMS Health Plan Management System (HPMS)

data as contract-plan pairs (e.g., an H, S, or R contract followed by four digits paired with a three-digit and plan identification code). We analyzed benefit information only for plans offering Part D coverage to beneficiaries who were also eligible to participate in the demonstration. Thus, our analyses exclude employer-sponsored plans and other special plans (e.g., PACE plans).

4.2 Data

Plan benefit information in this section was derived primarily from the CMS HPMS data set. However, for data on benefits provided in the coverage gap, we used a file obtained directly from CMS for 2006. We used this separate file to analyze coverage in the gap, because a variable describing these benefits was not available in the 2006 HPMS files. The main files contain information regarding benefit structure for PDPs and MA-PDs. Coverage gap benefits were available in the 2007 HPMS data. **Table 4-1** shows national counts of plan type variants analyzed in this report. We made a few basic observations from this table. First, despite policy makers' concerns that few organizations might choose to offer enhanced benefits, in the absence of the reinsurance demonstration, we found that there were 1,726 basic benefits packages in 2007 and 2,375 enhanced plans in 2007. These counts of plans represent increases over 2006 of 8.7 percent and 53.7 percent, respectively. Of particular note, we found a large increase in the number of non-demonstration enhanced plans between 2006 and 2007. This suggests that, based on initial experience with Part D in 2006, organizations were much more willing to offer enhanced products outside of the demonstration 1 year later.

Table 4-1
Counts of Medicare Part D plan type variants, 2006-2007

Counts of plans	Year	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—Non-demonstration	Enhanced alternative demonstration plans—Flexible capitation	Enhanced alternative demonstration plans—Fixed capitation
PDP	2007	222	257	523	736	171	0
PDP	2006	134	314	386	435	177	0
PDP	% Change	66%	-18%	35%	69%	-3%	0%
MA-PDs	2007	293	47	384	1,101	357	10
MA-PDs	2006	255	150	349	587	312	34
MA-PDs	% Change	15%	-69%	10%	88%	14%	-71%
All plans	2007	515	304	907	1,837	528	10
All plans	2006	389	464	735	1,022	489	34
All plans	% Change	32%	-34%	23%	80%	8%	-71%

SOURCE: RTI analysis of 2006 and 2007 Medicare Health Plan Management System (HPMS) data.

The fixed capitation model was not elected by any PDPs in 2006 and 2007. It was used by 34 MA-PDs in 2006, but most of these left the market by 2007, leaving only 10 MA-PDs on the fixed capitation plan in 2007. Many of these plans may have switched to the flexible capitation plan, which experienced a 14 percent increase in MA-PDs between 2006 and 2007.

Plans may not have elected the fixed option, where full coverage begins at $5,100 in total drug expenditures, because they were afraid of selection of high-cost users into these plans. For the flexible option, catastrophic must begin when the patient has paid $3,600, generally after more than $13,600 in drug expenses. The fixed capitation benefit mandates that catastrophic coverage begin after only $5,100 in drug expenses. In other words, the fixed benefit is a more generous benefit, particularly for high drug utilizers.

4.3 Analysis of Premiums and Cost Sharing

Out-of-pocket costs are a key benefit design element and are very visible to beneficiaries. Beneficiaries tend to view the monthly premium and cost sharing as important factors in comparing and choosing plans. Pricing was therefore a focal point of Part D informational resources, including the Medicare Prescription Drug Plan Finder website (http://www.medicare.gov/MPPF/). Thus, it is important to understand how plan type variants differed on various out-of-pocket costs. We focused particularly on demonstration versus non-demonstration enhanced plans.

Premiums: We analyzed mean and median monthly premium rates among the plan type variants.[10] Results are shown in **Table 4-2**. A comparison between basic and enhanced plans showed, as might be expected, that mean and median premiums for basic plans were often (but not always) lower than premiums for enhanced alternative plans. We also found that premiums for MA plans tended to be lower than premiums for PDPs. Results are unweighted for enrollment.

For PDPs, the mean monthly premium was generally lower for basic benefit plans than for enhanced benefit plans (both demonstration and non-demonstration plans). If an MA-PD's bid is less than its benchmark, the maximum the government will pay for coverage of original Medicare benefits, 75 percent of this difference, called the "rebate", must be provided to enrollees as extra benefits in the form of cost-sharing reduction, premium reduction for Part B or for Part D, and/or additional covered services. Alternatively, MA-PDs receive rebates equal to 75% of the difference between their projected costs for covering original Medicare benefits and the maximum that the government will pay for coverage of these benefits (the benchmark) if their bid is less than the benchmark. By law MA-PDs must apply the rebate to cover non-Medicare benefits, such as reduced Part A and Part B cost sharing and reduced Part D premiums. The use of these rebates on Part D premiums is likely responsible for some of the difference in premiums between MA and non-MA Part D plans.

[10] We present both mean and median measures of central tendency because some plan types include clusters of zero premium plans, which can skew means. Providing information on both allows the reader to understand the average, as well as the most common premiums offered to Medicare beneficiaries.

Table 4-2
Mean and median monthly premiums by plan type, 2006-2007

Plan type	Year	Monthly premium—Basic benefit plans—Defined standard	Monthly premium—Basic benefit plans—Actuarially equivalent	Monthly premium—Basic benefit plans—Basic alternative	Monthly premium—Enhanced alternative plans—Non-demonstration	Monthly premium—Enhanced alternative demonstration plans—Flexible capitation	Monthly premium—Enhanced alternative demonstration plans—Fixed capitation
Mean—PDPs	2007	$31.93	$24.86	$29.19	$43.90	$52.46	NA
Mean—PDPs	2006	$25.74	$33.14	$35.52	$42.31	$45.53	NA
Mean—PDPs	% difference	24.0%	-25.0%	-18.0%	4.0%	15.0%	NA
Mean—MA-PDs	2007	$18.36	$18.31	$19.89	$18.08	$20.19	$18.10
Mean—MA	2006	$23.09	$20.88	$21.28	$14.44	$22.66	$38.63
Mean—MA	% difference	-20.5%	-12.3%	-6.5%	25.2%	-10.9%	-53.1%
Mean—All plans	2007	$24.21	$23.85	$25.26	$28.42	$30.64	$18.10
Mean—All plans	2006	$24.01	$29.17	$28.77	$26.31	$30.94	$38.63
Mean—All plans	% difference	1.0%	-18.0%	-12.0%	8.0%	-1.0%	-53.0%
Median—PDPs	2007	$31.40	$25.20	$28.90	$42.50	$48.50	NA
Median—PDPs	2006	$27.39	$32.89	$32.08	$42.57	$47.93	NA
Median—PDPs	% difference	15.0%	-23.0%	-10.0%	0.0%	1.0%	NA
Median—MA-PDs	2007	$21.00	$23.90	$22.00	$18.30	$20.30	$0.00
Median—MA	2006	$23.28	$22.09	$23.68	$0.00	$23.00	$42.00
Median—MA	% difference	-10.0%	8.0%	-7.0%	100.0%	-12.0%	-100.0%
Median—All plans	2007	$23.90	$24.90	$27.30	$30.70	$23.75	$0.00
Median—All plans	2006	$25.16	$31.30	$28.83	$30.54	$29.52	$42.00
Median—All plans	% difference	-5.0%	-20.0%	-5.0%	1.0%	-20.0%	-100.0%

NOTE: In this table, NA indicates that there were no plans offered in this category.

SOURCE: RTI analysis of 2006 and 2007 Medicare Health Plan Management System (HPMS) data.

The median plan premium trend for MA-PD varied, with defined standard, basic alternative, flexible, and fixed capitation declining between 2006 and 2007. The most significant change was in the premium of the non-demonstration plan, which rose from $0.00 in 2006 to $18.30 in 2007. The actuarially equivalent plan mean decreased by 12 percent, but the median plan premium increased by 8 percent, indicating that most of the plans increased, except for a few plans whose premiums decreased enough to compensate for all of the MA-PDs. We saw from Table 4-1 that the number of plans in the MA-PD actuarially equivalent plan declined from 150 in 2006 to 47 in 2007, and this large exiting from the market may be responsible for the strange trend. The average premium for MA-PDs dropped for all basic plans, as well as for the demonstration plan. However, for the non-demonstration plans with enhanced benefits, the average 2007 premium increased by 25 percent (from $14.44/month to $18.08/month) relative to 2006. The unpopular fixed capitation demonstration plan cut its premium in half, from $38 to $18 between 2006 and 2007, possibly to compete with premiums in the $18 to $22 range offered by other MA-PDs, or possibly because the more expensive plans had exited the market.

For MA-PDs, both the mean and median premiums were lower than premiums for the basic and enhanced benefit plans. In 2006, the median non-demonstration plan premium was $0.00, but this increased to $18.30 on par with the median premiums of other drug benefit options. The presence of MA plans with no premiums is most likely due to the ability of MA plans to apply Part C rebates to reduce Part D premiums.

To examine further trends in monthly premiums, we also compared the distributions in monthly premiums by plan type variants. These results are shown in **Table 4-3.** Premiums analyzed were total premiums, including both basic and supplemental Part D premiums. In 2006, 22 percent of defined standard plans and 8 percent of the demonstration plans had premiums under $15, but none of the other plans had premiums under $15. By 2007, 8 percent of the defined standard, 4 percent of actuarially equivalent, and 0 percent of all other demonstration plans had premiums under $15 per month. In 2006, about half of PDP premiums (44 percent to 54 percent) fell in the $25 to $35 premium range. In 2006, most of the plans with premiums under $35 per month were defined standard plans. By 2007, 37 percent of plan premiums were more than $35 per month. Among basic benefit plans, the majority of premiums were clustered at $25 per month or more. By comparison, the enhanced plan premiums clustered around $35 or more. Demonstration enhanced plans were generally more expensive than non-demonstration enhanced plans; in 2007, almost half of demonstration plans had premiums of $50 per month or more.

Premiums for the flexible demonstration plan in 2007 clustered at $15 to $25, the middle range, which encompassed 45 percent of plan premiums by 2007. Premiums for this type of plan were much more spread out in 2006, and the clustering in 2007 might have resulted from the accumulation of experience data to price the plans correctly. However, some of the site visit data indicate that plans first chose feasible premiums and then designed benefits around the premiums. Site visits also indicated that plans often chose premiums to cater to high-benefit or low-benefit plan options and specifically excluded plan options with moderate benefits and moderate premiums for lack of demand.

Considering the distribution of monthly premiums, we noted some interesting differences among plan type variants. Among PDPs, premiums for the defined standard benefit plans tended

to be more clustered around the median compared with other plan types. There were no $0 premium PDPs. The other basic PDP types (actuarially equivalent and basic alternative) had premiums clustered in either the $25.00 to $34.99 or $35.00 to $49.99 groupings. By comparison, the enhanced plans generally also had premiums clustered in two groups, though at higher dollar levels; the majority of premiums were clustered in either the $35.00 to $49.99 or $50.00 and over groupings. Flexible capitation demonstration plans had a greater number of premiums in the over $50.00 group relative to the non-demonstration capitation plans.

This analysis suggests that the range of premiums is much greater among the enhanced plans, particularly for MA plans, which can vary in premium from $0 to $100+. The PDP range of premiums for enhanced plans was also wide, starting at about $17 and going over $100. The basic plan premium range was much tighter, ranging from $8 to $55.

As expected, there were no PDPs with a $0 monthly premium, and only a handful of PDPs had premiums that were less than $15 in 2006; PDPs do not have the option of subsidizing premiums with Medicare Parts A and B rebates, and thus have no practical mechanism to offer very low or $0 premiums. By 2007, there were no PDPs with premiums less than $15 per month. The distribution appears to be bimodal, with a small number of plans in 2006 in the $1 to $25 range, and those plans increasing to the $15 to $30 range. In 2006, 40 percent of plan premiums were $50 or more and, by 2007, 47 percent of all plan premiums were $50 or more.

In 2006, 33 percent of MA-PDs had a $0 premium. This percentage shrank slightly to 28 percent with no premium in 2007. In 2006, the remaining plans were distributed among the premium groups, with most plans with non-zero premiums landing between $15 and $35. The premium distribution in 2007 was very different, where about 50 new plans entered, and all of them seemed to enter in the premium range of $15 to $25. In 2007, 44 percent of plans cost $15 to $25. The percentage of plans costing over $35 decreased from 24 percent of MA-PDs to 8 percent of MA-PDs in 2007. Average premiums for MA-PDs decreased between 2006 and 2007.

Cost Sharing: In addition to monthly premiums, beneficiaries are also sensitive to the range of copayments required when receiving health insurance benefits. In the Medicare Part D program, many cost-sharing payment elements were legislatively determined as part of the defined standard benefit package. However, anticipation of beneficiaries' desire for reduced cost sharing for some benefit elements was likely an impetus for the array of alternative basic and enhanced benefit options.

Table 4-3
Monthly premium ranges and distribution by plan type, 2006-2007

Range of monthly premiums	BBP* Defined standard Min	BBP* Defined standard Max	BBP* Actuarially equivalent Min	BBP* Actuarially equivalent Max	BBP* Basic alternative Min	BBP* Basic alternative Max	EAP** Non-demonstration Min	EAP** Non-demonstration Max	EAP** Flexible Capitation Min	EAP** Flexible Capitation Max	EAP ** Fixed capitation Min	EAP ** Fixed capitation Max
PDPs	$8.40	$54.20	$9.50	$43.10	$1.90	$42.50	$19.20	$135.70	$17.10	$110.30	NA	NA
MA-PDs	0.00	44.00	0.00	37.30	0.00	55.70	0.00	131.80	0.00	124.90	0.00	90.50
All plans	0.00	54.20	0.00	43.10	0.00	55.70	0.00	135.70	0.00	124.90	0.00	90.50
Counts of plans by premium range	2007	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007	2006
PDPs												
$0	0	0	0	0	0	0	0	0	0	0	NA	NA
$0.01-$14.99	18	29	11	1	2	1	0	0	0	14	NA	NA
$15.00-$24.99	45	21	115	38	88	66	43	33	24	16	NA	NA
$25.00-$34.99	77	73	125	149	363	168	100	79	21	2	NA	NA
$35.00-$49.99	76	8	6	122	70	89	463	231	45	73	NA	NA
$50.00-$135.70	6	3	0	4	0	62	130	92	81	72	NA	NA
All premiums	222	134	257	314	523	386	736	435	171	177	NA	NA
MA-PDs												
$0	27	29	12	15	73	68	451	324	96	102	8	15
$0.01-$14.99	66	24	3	46	24	28	76	34	12	22	0	1
$15.00-$24.99	138	91	13	21	157	100	184	73	160	55	0	0
$25.00-$34.99	59	81	16	54	88	106	182	42	61	60	0	0
$35.00-$49.99	3	24	3	10	41	46	138	88	8	27	0	8
$50.00-$131.80	0	6	0	4	1	1	70	26	20	46	2	10
All premiums	293	255	47	150	384	349	1,101	587	357	312	10	34
All plans												
$0	27	29	12	15	73	68	451	324	96	102	8	15
$0.01-$14.99	84	53	14	47	26	29	76	34	12	36	0	1
$15.00-$24.99	183	112	128	59	245	166	227	106	184	71	0	0
$25.00-$34.99	136	154	141	203	451	274	282	121	82	62	0	0
$35.00-$49.99	79	32	9	132	111	135	601	319	53	100	0	8
$50.00-$135.70	6	9	0	8	1	63	200	118	101	118	2	10
All premiums	515	389	304	464	907	735	1,837	1,022	528	489	10	34

NOTES: NA indicates there were no plans offered in this category.

*BBP = Basic benefit plans.

**EAP = Enhanced alternative plans.

SOURCE: RTI analysis of 2006 and 2007 Medicare Health Plan Management System (HPMS) data.

To begin the comparison of cost sharing among plan type variants, we first analyzed plan deductibles and initial coverage levels. Results are shown in **Table 4-4**. By definition, defined standard benefit and actuarially equivalent plan deductibles and initial coverage levels were the same. For these basic plans, cost-sharing payments were at the defined $250 deductible and $2,250 initial coverage levels in 2006. In 2007, these amounts were increased to $265 and $2,400, respectively. Alternative basic plans for both PDPs and MA-PDs varied this benefit structure. Most alternative basic plans reduced plan deductibles to $0, with an average of $30 in 2006 and $34 in 2007. They also reduced their median initial coverage levels to $2,000 (i.e., reduced the dollar value where the gap begins), because these plans were actuarially equivalent to the standard benefit plans.

Among enhanced benefit plans, non-demonstration plans generally followed the pattern found in alternative basic plans, offering lower deductibles paired with low initial coverage limits. Not surprisingly given their low monthly premiums, non-demonstration enhanced plans had corresponding lower mean and median initial coverage limits as compared with other enhanced plans. The lower the initial coverage limit, the sooner the enrollee theoretically enters the coverage gap. However, it is important to note that the trend among enhanced non-demonstration plans, which on average started at a mean initial coverage level of just under $2,000 in 2006, increased in 2007. The PDP initial coverage limit increased by $88, and the MA-PD initial coverage limit increased by $400, a 20 percent increase. The demonstration plans had higher initial coverage limits compared with non-demonstration plans, a median of $3,000, which did not change between 2006 and 2007. This indicates that of all the plan types, flexible capitation demonstration plan enrollees have the longest period of coverage prior to entering the coverage gap.

In addition to plan deductible and initial coverage limits, another key cost-sharing element of PDPs is the use of coinsurance, copayments, or some combination for specified drug tiers. Copayments are a fixed dollar amount (e.g., $25) charged for each prescription within a tier. Coinsurance amounts are generally defined as a percentage of the cost of the prescription within each tier. Copayments were the dominant approach applied among all plans. Many plans applied copayments among lower tiers and then converted to coinsurance for higher tier levels. Other plans began with coinsurance in lower tiers and then applied copayments in higher tiers, although this model was less common. An important point is that plans often combined these cost-sharing approaches in a single benefit plan. In these data, plans self-define tiers, which means that tiers can have equal values (i.e., Tiers 1 and 2 can have $10 copayments). Likewise, some tiers have $0 copayments.[11] Tiers are essentially used to define categories of drugs with different cost-sharing amounts. Plans often apply different out-of-pocket costs to different tiers of drugs to encourage the use of either generic or other preferred products. Therefore, both the use and number of tiers within different drug plans can indicate the emphasis of these different plans on cost sharing for some types of drugs. By definition, the defined standard benefit plans cannot apply either copayment or coinsurance by drug tier.

[11] In some cases, we found that the highest level tier imposed by the plan was associated with a $0 copayment. In these cases, we assumed that the $0 was intended to indicate that this tier was not applied, and we accordingly recoded these values as "missing."

Table 4-4
Plan deductible and initial coverage level by plan type, 2006-2007

Plan type	Year	Basic benefit plans—Defined standard ($)	Basic benefit plans—Actuarially equivalent ($)	Basic benefit plans—Basic alternative ($)	Enhanced alternative plans—Non-demonstration ($)	Enhanced alternative demonstration plans—Flexible capitation ($)	Enhanced alternative demonstration plans—Fixed capitation ($)
Mean plan deductible							
PDPs	2007	265	265	52	5	0	NA
PDPs	2006	250	250	46	9	0	NA
MA-PDs	2007	265	265	10	3	0	0
MA-PDs	2006	250	250	13	8	1	1
All plans	2007	265	265	34	4	0	0
All plans	2006	250	250	30	8	1	1
Median plan deductible							
PDPs	2007	265	265	0	0	0	NA
PDPs	2006	250	250	0	0	0	NA
MA-PDs	2007	265	265	0	0	0	0
MA-PDs	2006	250	250	0	0	0	0
All plans	2007	265	265	0	0	0	0
All plans	2006	250	250	0	0	0	0
Mean initial coverage level							
PDPs	2007	2,400	2,400	2,350	2,074	2,200	NA
PDPs	2006	2,250	2,250	2,038	1,986	2,150	NA
MA-PDs	2007	2,400	2,400	2,273	2,386	3,110	—b
MA-PDs	2006	2,250	2,250	2,034	1,990	3,026	2,259a
All plans	2007	2,400	2,400	2,289	2,267	2,958	—b
All plans	2006	2,250	2,250	2,035	1,988	2,969	2,259
Median initial coverage level							
PDPs	2007	2,400	2,400	2,300	2,100	2,200	NA
PDPs	2006	2,250	2,250	2,000	2,000	2,150	NA
MA-PDs	2007	2,400	2,400	2,268	2,135	3,000	—b
MA-PDs	2006	2,250	2,250	2,000	1,900	3,000	1,800a
All plans	2007	2,400	2,400	2,300	2,100	3,000	—b
All plans	2006	2,250	2,250	2,000	2,000	3,000	1,800a

NOTES: NA indicates there were no plans offered in this category.

[a] Indicates the estimates reflect 34 plans; however, 17 (50 percent) reported missing ICL.

[b] Indicates plans reported missing ICLs.

SOURCE: RTI analysis of 2006 and 2007 Medicare Health Plan Management System (HPMS) data.

To compare plan types on the use and costs of different drug tiers, we first analyzed the use of tier and mean/median levels of copayment by drug tiers for a 1-month supply of drugs. In **Table 4-5**, we focused on copayments because feedback from the project's site visits suggested that this is the most common mechanism used for cost sharing, particularly among the most commonly used drugs found in lower tiers for both PDPs and MA-PDs. Plans favor copayments on common drugs because they offer beneficiaries a more predictable approach to cost sharing compared with paying a percentage of the cost of individual drugs.

Table 4-5
Percentage of plans applying copayments by drug tiers by plan type, 2006-2007

Plan Type and Year	Benefit plan type—Actuarially equivalent	Benefit plan type—Basic alternative	Benefit plan type—Non-demonstration	Benefit plan type—Demonstration—Flexible capitation	Benefit plan type—Demonstration—Fixed capitation
PDP					
2007	55.6%	63.2%	70.4%	72.6%	NA
2006	72.9%	70.2%	81.1%	82.4%	NA
% Change	-17.3%	-7.0%	-10.7%	-9.8%	NA
MA-PD					
2007	58.1%	75.9%	77.1%	74.1%	75.0%
2006	65.3%	85.1%	78.1%	84.1%	97.1%
% Change	-7.2%	-9.2%	-1.0%	-10.0%	-22.1%

NOTES: NA indicates there were no plans offered in this category.

SOURCE: RTI analysis of 2006 and 2007 Medicare Health Plan Management System (HPMS) data.

Although the majority of plans use copayments by drug tiers, the percentage of plans using this method of cost sharing appears to be declining universally across plan types. In 2007, fewer plans used copayments/tiers than in 2006. In 2006, 73 percent of actuarially equivalent plans used copayment tiers and, in 2007, only 57 percent used them. In MA-PD demonstration plans, the change was more striking, with 84 percent of flexible capitation plans using copayment tiers in 2006, and 74 percent using copayment tiers in 2007. This appears to indicate that plans are moving away from copayment tiers and are replacing them with coinsurance tiers. We examined the variation in plans applying copayments by drug tiers. Plans self-report tiers, and as a result there is no uniform definition or application of tiers. The majority of our analysis found that plans generally used and reported Tier 1 for generic, Tier 2 for preferred brand, and Tier 3 for nonpreferred brand, but additional variants exist. For example, some plans apply their highest tier as a category for specialty drugs.

4.4 Gap Coverage

Aside from differences in beneficiary out-of-pocket costs, Part D plans vary in both the benefits they provide at various points and in how these benefits are managed. For this demonstration evaluation, one important aspect of plan type comparisons relates to the benefits offered to beneficiaries in the "coverage gap." In theory, availability of the reinsurance demonstration financing may have had an effect on coverage offered to beneficiaries in this coverage gap.

In attempting to control costs, pharmacy benefit plans often use management programs beside financial incentives—including premiums and cost sharing—to ensure appropriate utilization of prescription drugs while controlling costs. These programs include limiting the network of pharmacies and formulary management through programs such as quantity limits, step therapy, prior authorization, and coverage limitations on drugs in similar therapeutic categories through various tiers. This section describes the coverage provided in the coverage gap, followed by an analysis of pharmacy management programs by plan variants.

Coverage in the Coverage Gap: To determine whether participation in the reinsurance demonstration had an effect on availability of benefits once the beneficiary entered the coverage gap, we compared the total number and percentage of plans offering generic and/or brand-name drug coverage in the gap by plan type. If the reinsurance demonstration helped improve the availability of coverage in the gap, we would expect to see a greater percentage of demonstration enhanced plans offering gap coverage as compared with non-demonstration plans.

We found that PDP demonstration plans were moderately more likely than non-demonstration plans to offer some coverage in the gap (57.5 percent for non-demonstration enhanced plans and 74.3 percent for flexible capitation plans in 2007). However, for MA-PDs, the non-demonstration enhanced plans were more likely to offer gap coverage. As **Table 4-6** shows, gap coverage is more common in PDPs than it is in MA-PDs. This is somewhat surprising given that MA-PDs had the potential to subsidize additional benefits through either the reinsurance demonstration funds or Medicare Part A and B rebates. Stand-alone PDPs do not have the rebate option. However, PDPs may have perceived the need to offer the best benefits possible to compete with the wide variety of stand-alone prescription drug options available in most regions. Finally, although the reinsurance demonstration participants were overall more likely to offer coverage in the gap, participation in the demonstration did not necessarily ensure that this enhanced benefit would be offered.

We see that most plans provide only *generic* coverage in the coverage gap, as is the case for 54 percent of non-demonstration PDPs and 74 percent of flexible capitation demonstration plans. Both demonstration plans and non-demonstration plans increased their focus on coverage of generics in the gap. This may be part of a greater strategy to increase the use of generic drugs where possible, as evidenced by the large copayment differentials between generic drugs in Tier 1 and preferred brand-name drugs in Tier 2 across plans. No plans in 2007 claimed to cover "generics and brands," whereas in 2006, 18.6 percent of plans covered both for the demonstration project. However, the 2007 data introduced two new options for the description of coverage in the gap: "all formulary drugs" and "generics and preferred." We believe this is a clarification in the way CMS collected data, rather than a new coverage option per se. Still,

based on the refined data available in 2007, less than 4 percent of non-demonstration brands offered these benefits, and less than 1 percent of demonstration plans offered them. Basically, none of the plans offer coverage in the gap that is similar to the coverage outside of the gap—most just offered coverage of generic drugs in the gap.

The variation in plan-offered benefits was greater among the MA-PDs. Among non-demonstration plans, 24 percent offered generics in 2006 and 35 percent offered generics in 2007, an increase of more than 10 percent of MA-PD non-demonstration plans offering generic coverage in the gap. However, among flexible capitation plans—the vast majority of all demonstration plans—53 percent offered gap coverage for generics in 2006 but only 25 percent in 2007. Again, only 5 percent included all formulary drugs or generics and preferred in 2007, so this change cannot be attributed to these groups. Generic and brand-name drug gap coverage among flexible capitation plans halved, from 5.5 percent of plans in 2006 to 2.8 percent of plans in 2007.

Although demonstration plans generally appear more likely to offer coverage in the gap, this benefit is offered much more commonly in the PDPs (a total of 74.3 percent of flexible capitation plans offer either generic or generic/brand-name coverage in the gap) as compared with MA-PDs (where a total of 33.1 percent of flexible capitation and 80.0 percent[12] of fixed capitation plans offered some gap coverage). This is surprising given that MA-PDs had the potential to subsidize additional benefits through either the reinsurance demonstration funds or Medicare Part A and B rebates; PDPs do not have the rebate option. However, PDPs may have perceived the need to offer the best benefits possible to compete against the wide variety of stand-alone prescription drug options available in most regions. Finally, although the reinsurance demonstration participants overall were more likely to offer coverage in the gap, participation in the demonstration did not necessarily ensure that this enhanced benefit would be offered.

4.5 Summary Comparison of Plan Benefits

One complex aspect of this evaluation was comparing the overall generosity—taking into account benefits and beneficiary costs—of demonstration enhanced plans compared with non-demonstration plans. As we have shown earlier in this report, PDPs and MA-PDs exhibit a wide variation in benefits. Some plans pay more generously than others for some people's prescription needs. Although each person is different, general trends in the comparative generosity of certain types of plans can be developed. Enhanced plans generally charge a higher premium than basic plans but offer a more comprehensive drug benefit package. On average, enhanced plans with large benefits fit high-utilizing patients and patients who are averse to the risk of high drug costs. Overall, patients should be interested in the overall drug spending for the year.

[12] These are the 2006 figures, per table.

Table 4-6
Drugs provided in the coverage gap, 2006 and 2007: Percentages of plans, by plan type

Plan type		Non-demonstration	Non-demonstration	Demonstration —Flexible capitation	Demonstration —Fixed capitation
PDP					
Total number	2007	57.5%	74.3%	NA
Total number	2006	17.7	81.3	NA
Total number	% Change	39.7	-7.0	NA
Generics	2007	53.9	73.7	NA
Generics	2006	17.5	62.7	NA
Generics	% Change	36.4	11.0	NA
Generics and preferred brands	2007	0.0	0.0	NA
Generics and preferred brands	2006	0.2	18.6	NA
Generics and preferred brands	% Change	-0.2	-18.6	NA
All formulary drugs	2007	3.3	0.6	NA
Generics and preferred brands	2007	0.3	0.0	NA
MA-PD				
Total number	2007	39.9	33.1	80.0
Total number	2006	32.9	58.7	70.6
Total number	% Change	7.0	-25.6	9.4
Generics	2007	34.5	24.9	0.0
Generics	2006	24.0	53.2	23.5
Generics	% Change	10.5	-28.3	-23.5
Generics and preferred brands	2007	1.3	2.8	0.0
Generics and preferred brands	2006	8.9	5.5	47.1
Generics and preferred brands	% Change	-7.6	-2.7	-47.1
All formulary drugs	2007	1.7	3.4	80.0
Generics and preferred brands	2007	2.4	2.0	0.0

NOTES: NA indicates there were no plans offered in this category

SOURCE: RTI analysis of 2006 and 2007 Medicare Health Plan Management System (HPMS) data.

To begin to compare demonstration and non-demonstration plan benefits, we constructed a basic generosity index, which is a measure used to compare the benefits that average beneficiaries expect to receive from specific drug plans. The index we constructed is based on expected out-of-pocket costs for an "average" beneficiary. Fu and Associates (2007) analyzed CMS data reported by Medicare plans on the benefits offered and used the Medicare Current Beneficiary Survey (MCBS) to create an average standard basket of drugs. This standard was developed based on reported utilization according to MCBS; the analysis did not estimate a likelihood of using differing drugs. This standardized set of drugs was then priced to create an estimated monthly out-of-pocket cost associated with cost sharing for these drugs under each benefit plan. These estimated monthly out-of-pocket costs for cost sharing were combined with monthly premiums for each benefit plan to create an estimate of total monthly costs for an enrollee receiving the standard set of drugs for each plan. Fu and Associates also used the weighted MCBS data to create baskets of drugs by age group and by self-reported well-being to better assess if some plans were less expensive for healthy or sick patients.

Data are broken down into monthly premium and monthly out-of-pocket expense for each plan. For the MA-PDs, Fu provided a detailed breakdown of out-of-pocket costs and premiums for six age groups: <65, 65-69, 70-74, 75-79, 80-85, and 85+. There was also a detailed breakdown of out-of-pocket costs for each of the five self-reported health states in the MCBS: poor, fair, good, very good, and excellent. Therefore, there are 30 (i.e., $6 \times 5 = 30$) different age/health states for which the generosity index was measured. For the PDPs, the weighted MCBS was used without breakdowns by health status and age.

Although useful, the generosity index has shortcomings.

- Selection: The out-of-pocket cost model assumes that patients will continue to choose the drugs they utilized according the MCBS data, and that they do not adjust their drug consumption based on plan formularies and other incentives. This is limitation of these analysis because, in reality, patients may adjust their purchases to better fit with their plan's individual drug formularies in order to reduce their overall spending on drugs.

- Nonprice utilization management: One way that benefit plans manage drug costs is by using nonprice utilization management, such as quantity limits and step therapy, to reduce the use of expensive drugs. Differences among plans in controlling utilization by this mechanism are also not reflected in this analysis because, as noted above, the out-of-pocket cost model assumes beneficiaries will continue to use drugs as reported in the MCBS.

- Uniform pricing: The Fu data set assumes a price and does not account for variations in price by health plan, which can be detected during the deductible payment, during the gap in coverage, and when patients pay coinsurance. Fu uses an AWP to determine the cost of a drug, and this cost does not vary by plan.

Lastly, the MCBS (i.e., drug utilization) data are from 2002, and this utilization is applied to 2007 drug benefits details at the plan level. In other words, 2002 utilization data is applied to premiums, deductibles, and copayments from 2007 plans to create the generosity index. This is a

limitation of the analysis, because the pharmaceutical industry is rapidly changing and the generosity index uses drug data that are 5 full years out of date, potentially skewing results. While this may affect the estimated total costs, the comparison of relative costs between plans is more reliable.

Results from our analysis are shown in **Table 4-7.** The table shows predicted out-of-pocket spending for low users of drugs (5th percentile), mean spending beneficiaries, and high users of drugs (95th percentile). Among PDPs, the three basic plans all had similar costs for average-use beneficiaries, within $1.50, or about 1 percent of one another. The similarity in the out-of-pocket costs between different basic plan types suggests that they have, as intended, very similar actuarial values. The enhanced non-demonstration plans at $139.76 were slightly more costly than the other plans. Demonstration plans were less costly at $122.01. For PDPs there was a large difference between the demonstration and non-demonstration plan costs, nearly $18/month or more than $200/year.

Among high users (the 95th percentile) predicted out-of-pocket costs were similar among all of the plans, only about $30/month more than the mean values. Likewise, the 5th percentile spending was about $30 less than the mean spending for all plans except for the defined standard, where the 5th percentile spending was only $84/month, about $40 less than the mean spending. This implies that defined standard plans have a greater variance in their plan benefits than other plans; some defined benefit plans offer very generous benefits, while others offer more stingy benefits. The general range between the 5th percentile and 95th percentile among plans of a certain type was about 50 percent. Because defined standard plans use a standardized benefit structure, plans vary only in terms of their premiums.

Among the MA-PDs as a whole, both premiums and predicted drug-related out-of-pocket spending was lower for a number of plan types relative to PDPs, indicating that MA-PDPs may often offer a *more* generous benefit than PDPs offer. MA-PDs tend to be more generous because they have access to Part A and Part B rebates, which can be used to reduce the premium and increase the benefits of Part D plans. The estimates are based on average expected drug consumption rather than actual use, so we cannot measure selection into certain plan types.

We found greater variation in mean spending between MA plans of the same type. The average spending among MA basic plans was much lower, particularly among the demonstration plans, where average cost of the drug bundle was around $100, compared with $130+ in non-demonstration PDPs. In the MA-PDs, on average, the actuarially equivalent plan was as generous as the enhanced plan, which cost $10 to $12 per month less than either the MA defined standard plan or the MA basic alternative plan.

Table 4-7
Generosity index: Monthly predicted beneficiary spending distribution by plan type, 2007

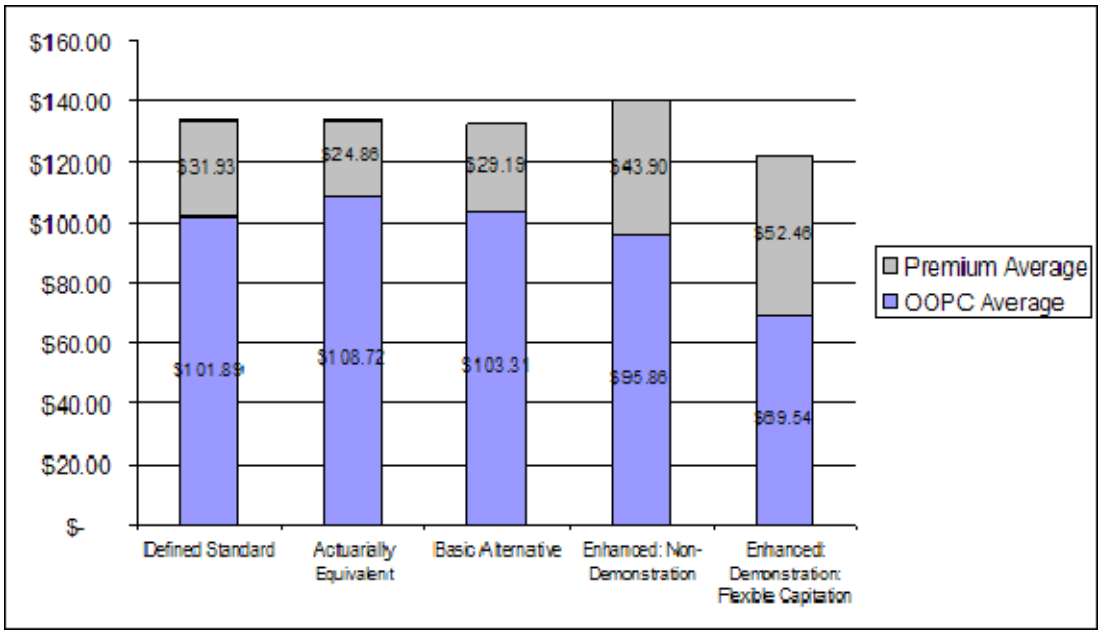
Plan type	5th percentile of spending	Total mean spending	95th percentile of spending
PDP			
Defined standard	$ 84.21	$133.82	$163.07
Actuarially equivalent	106.35	133.59	155.70
Basic alternative	97.88	132.50	157.38
Enhanced: Non-demonstration	103.65	139.76	167.13
Enhanced: Demonstration: Flexible Capitation	94.43	122.01	152.84
MA			
Defined standard	79.59	125.15	150.29
Actuarially equivalent	97.11	114.16	137.93
Basic alternative	93.25	123.23	155.37
Enhanced: Non-demonstration	76.30	113.54	153.60
Enhanced: Demonstration: Flexible capitation	65.16	99.26	152.61
Enhanced: Demonstration: Fixed capitation	55.70	101.47	136.61

SOURCE: RTI Analysis of Fu Associates File, 2007.

Comparing demonstration and non-demonstration enhanced plans, we found that across both PDPs and MA-PDs, demonstration enhanced plans were predicted to have lower out-of-pocket spending for low, mean, and high users of drugs. Among PDPs, mean out-of-pocket expenditures for demonstration plans were about $17 less per month, indicating (by this measure) a more generous product. For MA-PDs, mean out-of-pocket spending for flexible capitation demonstration plans was about $14 less per month, and fixed capitation demonstration plans were $12 less per month than enhanced non-demonstration plans.

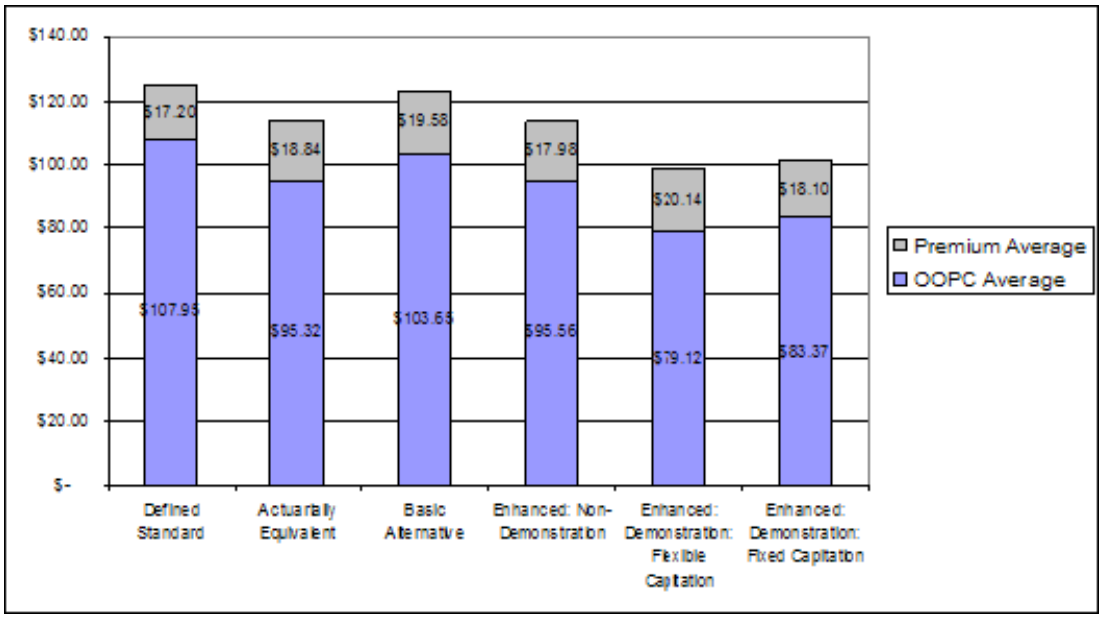
We also decomposed the source of our predicted out-of-pocket spending for both PDPs and MA-PDs. Results are shown in **Figures 4-1** and **4-2**. Figure 4-1 is a split bar chart that shows one measure of PDP generosity by type, broken down by premium and out-of-pocket-cost sharing. In this figure, the average total monthly spending is along the Y-axis for a standard basket of drugs and a standardized beneficiary. The bottom portion of the column is the out-of-pocket average spending, and the top portion of each column is the average monthly premium. The most "generous" plan will cost the least, as measured by the sum of the monthly premium and the out-of-pocket spending for a standard basket of drugs. Essentially, higher total bars correspond to higher total out-of-pocket spending and hence lower total generosity for a standard basket of drugs.

Figure 4-1
PDP average generosity for 2007: Average monthly premiums and out-of-pocket spending



SOURCE: RTI Analysis of Fu Associates Files, 2007.

Figure 4-2
MA-PDP plan average generosity for 2007: Average monthly premiums and out-of-pocket spending



SOURCE: RTI Analysis of Fu Associates Files, 2007.

The three non-enhanced plans (the defined standard plan, the actuarially equivalent plan, and the basic alternative plans) all have approximately the same total generosity, although the payments are distributed slightly differently between premiums and out-of-pocket costs for each plan. The enhanced non-demonstration plan has a lower out-of-pocket payment on average than the basic plans, but a higher average premium. However, the average out-of-pocket cost is only slightly lower than the basic and is not enough to compensate for the higher monthly premiums of the enhanced non-demonstration plans. These higher monthly premiums result in a lower total generosity of the enhanced non-demonstration plan. The enhanced demonstration plans have the highest monthly premiums but the lowest average total monthly cost and, therefore, the highest total generosity. Although they also have the highest average monthly premium, these enhanced demonstration PDPs are the most generous because the out-of-pocket costs are much lower than the out-of-pocket costs of any of the other plan types.

Figure 4-2 uses the same format as Figure 4-1, except as applied to MA-PDs rather than PDPs. The bars measure the generosity index, which is an average by plan type of the total spending per month for a beneficiary for a standardized bundle of drugs. In this analysis, lower costs per month correspond to a more generous plan. The average monthly spending is shown on the Y-axis. The bars are broken into two portions. The blue portion of the bars is the out-of-pocket average spending, or how much the beneficiary will spend each month on average for the non-covered portion of the drug expense. The gray portion of the bar is the amount spent each month by the beneficiary to pay for the premium for the plan that beneficiary has purchased. In general, premiums are lower for MA-PDs—hovering around $20 per month less than for PDPs. As in PDPs, the demonstration plans tend to be more generous than either the non-demonstration enhanced plans or the non-enhanced plans. In general, the premiums are similar across plan types, but the out-of-pocket costs for the demonstration enhanced plans are about $80 per month (compared with out-of-pocket costs for other plan types of $95 to $105 per month).

Lastly, we analyzed predicted out-of-pocket cost spending for beneficiaries according to age and health status. These data were available only for MA-PDs. **Table 4-8** shows what beneficiaries are predicted to spend based on their health status and age. The general trends are as expected; patients with worse health spend more per month on drugs. We highlight the median age group in Medicare (ages 70-74). In this age group, those in excellent health paid between $55 and $70, while those in poor health paid between $155 and $210 per month on average. The variation by health status is linear for all plans and large, with expenses increasing by $20 to $60 per month as self-reported health declines. For MA-PDs, we do see that for those in poor health, the demonstration plans are predicted to be less expensive ($157) than either the non-demonstration enhanced plan ($191) or the standard plan ($210). This is true consistently across health status; both flexible and fixed capitation demonstration plans provide drugs more cheaply to all patients regardless of health status in the 70- to 74-year-old age group. We also see that the basic plans are consistently more costly than the non-demonstration enhanced plans, indicating that, although premiums are slightly higher, people generally utilize the benefits enough to offset the higher premiums in the enhanced plans.

Table 4-8
Mean total cost per month for Medicare Advantage plans for 70- to 74-year-olds by self-reported health in 2007

Age and health status	Defined standard	Actuarially equivalent	Basic alternative	Non-demonstration enhanced	Demonstration: flexible capitation	Demonstration: fixed capitation
Age 70-74 (Total)						
Excellent	$ 66.89	$ 63.85	$ 67.10	$ 61.21	$ 57.01	$ 55.39
Very good	88.63	82.13	87.57	80.07	71.06	73.67
Good	130.96	117.52	128.47	118.11	100.45	104.17
Fair	159.21	143.17	158.29	145.82	123.25	127.33
Poor	210.35	186.85	206.53	191.09	156.73	164.19

SOURCE: RTI Analysis of Fu Associates Files, 2007.

SECTION 5
ENROLLMENT ANALYSIS

One central objective of the Part D Payment Demonstration is to increase beneficiaries' choices of, and access to, enhanced benefit packages and in particular supplemental drug coverage. Therefore a major focus of RTI's evaluation of the demonstration considered beneficiary's responses to these enhanced options through their enrollment decisions. As part of the evaluation, we address three main enrollment-related research topics:

- Enrollment in demonstration versus non-demonstration plans,
- Selection bias for demonstration plans, and
- Factors influencing demonstration enrollment.

To address our research topics we use a combination of quantitative and qualitative analysis, and rely mainly on Medicare secondary data, including the Medicare Beneficiary Database. The sample for the enrollment analysis is the Medicare population, including beneficiaries enrolled in the Part D program and beneficiaries not enrolled. The time period for the enrollment analysis is 2006 to 2007. In this enrollment analysis we chose to obtain data for July of each year, the midpoint of the year. In 2006, July was after the special initial open enrollment period for Part D plans ended in May 2006. Our data represent two point-in-time, cross-sectional samples for July 2006 and July 2007.[13]

5.1 Research Questions and Methods

The purpose of this enrollment analysis was to answer the following research questions:[14]

- How did total enrollment in demonstration enhanced plans compare to non-demonstration enhanced and basic plans?
- Did enrollment trends in demonstration versus non-demonstration plans vary by enrollee characteristics?

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[13] The July 2006 "point-in-time" sample is based on beneficiaries' enrollment status in July 2006, and similarly, the July 2007 "point-in-time" sample is based on beneficiaries' enrollment status in July 2007.

[14] An additional research question we considered was "What is the impact of the demonstration on overall Part D enrollment?" There are however significant challenges to answering this research question, which makes obtaining meaningful answers through a multivariate analysis difficult. First, the Part D program and the Part D payment demonstration both began on January 1, 2006, which necessarily means that multivariate modeling must rely on a cross-sectional design. Second, demonstration enhanced plans are widespread, which limits the variation across areas in whether demonstration plans are offered. Third, non-demonstration enhanced plans are as widespread as demonstration enhanced plans, which confounds our ability to isolate the impacts of demonstration enhanced coverage. Fourth, there are significant unobservable factors, such as alternatives to Part D coverage, which could bias the results.

- Did enrollment trends in demonstration versus non-demonstration plans vary by geographic area?

- Did enrollment trends in demonstration versus non-demonstration plans suggest the demonstration resulted in receipt of improved benefits, such as reduced deductibles and/or coverage in the gap?

- Did demonstration plans experience adverse or favorable selection?

- What factors determined enrollment in basic versus enhanced plans? In demonstration versus non-demonstration plans? In Part D versus non-Part D?

Descriptive Analysis: We use descriptive analysis to answer the first five research questions which focus on demonstration plan enrollment and selection bias. Our enrollment analysis was conducted on both beneficiaries enrolled in the voluntary Part D program and beneficiaries not enrolled. The analysis incorporated the following descriptive elements:

- Plan type (basic benefit versus enhanced alternative; standalone PDP versus MA-PD)

- Geographic area (urban/rural, census region)

- Plan benefit structure (premium, deductible, gap coverage)

- Demographics/enrollment (age, sex, dual eligibility status)

- Predicted drug costs (Rx-HCC risk score)

We not only differentiated between basic benefit versus enhanced alternative plans, but among basic benefit plans, we differentiate between defined standard plans versus actuarial equivalent plans versus basic alternative plans. In addition, among enhanced alternative plans, we differentiated between demonstration plans versus non-demonstration plans. Further, among demonstration enhanced plans, we differentiated between flexible capitation plans versus fixed capitation plans. We did not differentiate the MA rebate as no plans chose this option under the demonstration.

Predicted prescription drug expenditures, used in our selection bias analysis, were measured by the Rx-HCC risk score. The Rx-HCC risk score is an expenditure-weighted index of a beneficiary's diagnoses that predicts the relative risk of future Medicare Part D expenditures. An Rx-HCC risk score greater than 1.00 indicates the beneficiary's predicted prescription drug expenditures are greater than the average for the Medicare population as a whole (Part D + non-Part D), and similarly, a risk score lower than 1.00 indicates predicted drug expenditures lower than average.

Multivariate Analysis: To identify the factors determining Part D enrollment we used multivariate modeling. The basic logistic regression model can be expressed in the following manner:

$$Log\,[P/(1-P)] = \beta_0 + \beta_1 X + \beta_2 M + \beta_3 E + \varepsilon$$

In the above equation, *P* is the probability of a Medicare Part D beneficiary enrolling in an enhanced plan.[15] The beneficiary characteristics, represented by *X*, include demographic/enrollment characteristics (age, sex, dual eligibility) and geographic area of residence (urban/rural, census region). The Rx-HCC risk score is used to control for predicted drug costs. Medical plan characteristics, represented by *M*, include whether the beneficiary is enrolled in a managed care or FFS plan,[16] and plan premiums.[17] Ideally, we would have included plan generosity as well, but due to data limitations, this was not possible.

The model also included an indicator variable, represented by *D*, which ideally would take the value of one for beneficiaries having access to an enhanced plan, and zero otherwise.[18] If access to supplemental drug coverage results in higher enrollment in enhanced plans, then the coefficient on the access indicator, β_3, would be positive, and the odds ratio would be above 1.0. However, because variation across areas in whether enhanced alternative plans are offered is limited,[19] we employ alternative measures of access to enhanced plans, including number of enhanced plans in an area, and percentage of drug plans in an area that are enhanced plans.[20]

5.2 Data

Study Sample. The sample for the enrollment analysis was the Medicare population, including beneficiaries enrolled in the Part D program and beneficiaries not enrolled. The time period for the enrollment analysis was 2006 to 2007. In this enrollment analysis we chose to obtain data for July of each year, the midpoint of the year. In 2006, July was after the special

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15 This example models the choice between enhanced versus basic plans. The multivariate framework can also be used to model the choice between demonstration and non-demonstration plans, and between Part D versus Non-Part D.

16 Our basic multivariate framework assumes that beneficiary choice of FFS versus MA is fixed (exogenous). However, one could conduct an extension of our basic multivariate framework that allows this choice to be modeled (endogenous).

17 Plan premium might be endogenous to the model. However, given plan premium was set prior to the data period, this potential endogeneity is mitigated.

18 Access to an enhanced plan depends on at least two factors: (1) beneficiary's area of residence and (2) whether beneficiary is enrolled in FFS or MA. Since access to an enhanced plan partly depends on beneficiary choice of medical plan, to simplify our analysis we will estimate our basic enrollment model on FFS beneficiaries. One could conduct an extension of our simplified analysis by also estimating a model on MA beneficiaries, as well as the pooled Medicare subpopulations.

19 For example, all Medicare beneficiaries have access to a PDP enhanced plan.

20 A limitation of our basic multivariate framework is that the availability of enhanced benefit plans is not randomized, i.e., presumably they are more likely to be offered in areas where sponsors think enrollment in them (demand for them) may be higher. These factors may also be correlated with total Part D enrollment/demand. Ideally one would attempt to control for selection bias using instrumental variables methods (Moffit, 1991), or other methods such as propensity scoring (Rosenbaum and Rubin, 1983).

initial open enrollment period for Part D plans ended in May 2006. Our data represent two point-in-time, cross-sectional samples for July 2006 and July 2007.[21]

It is clear that beneficiaries eligible for a low-income subsidy (LIS) had a limited choice of enhanced alternative coverage, including through demonstration plans. Further, it is well known that these beneficiaries are sicker than average. CMS auto-enrolls or facilitates enrollment for all those who are eligible for a LIS (CMS, 2005f). Auto-enrollment is the process for full-benefit dual eligibles; facilitated enrollment is the process for others eligible for LIS. LIS beneficiaries can in fact enroll in enhanced coverage. However, unless there is a zero supplemental premium, it stands to reason that LIS beneficiaries' ability to enroll in enhanced coverage will be limited, because they are in fact poor and have limited means to pay for supplemental coverage. Because of this, for some of our enrollment analyses, we exclude beneficiaries dually eligible for Medicare and Medicaid, which is a proxy for LIS status.[22] Note that since these beneficiaries are not excluded from the Demonstration, in order to conduct a comprehensive evaluation of the Demonstration, we do not exclude them from all analyses.

For our multivariate analysis, we used a 5 percent sample of beneficiaries enrolled in Medicare in July 2006. For reasons cited in the preceding paragraphs, we restrict the sample to FFS, Non-Medicaid beneficiaries.

Data Sources. The data sources for the enrollment analysis include:

- *Medicare Beneficiary Database (MBD).* The MBD is a beneficiary-level CMS database that contains extensive information about Medicare beneficiaries, including Medicare program enrollment information, Medicare health plan enrollment, Part D enrollment, and beneficiary demographic characteristics. The July 2006 and July 2007 MBD extracts are used in this study.

- *CMS Health Plan Management System (HPMS).* The HPMS collects service area, premium, and benefit information for MA and Part D plans. This information is submitted by plans annually, or more frequently if the data change. The HPMS Plan Benefit Package (PBP) datasets are available for each month and contain information describing the benefit package provided by each plan. The July 2006 and July 2007 HPMS extracts are used in this study.

- *CMS Rx-HCC Risk Score File.* The Rx-HCC Risk Score File contain Part D risk scores for 100% of the Medicare population, including beneficiaries enrolled in Part D and those not enrolled in Part D. For each beneficiary, the file provides an Rx-HCC risk score, which is the predicted drug costs for that year based on prior year

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21 The July 2006 "point-in-time" sample is based on beneficiaries' enrollment status in July 2006, and similarly, the July 2007 "point-in-time" sample is based on beneficiaries' enrollment status in July 2007.

22 Ideally, we would have used LIS markers. However, after reviewing the LIS markers we obtained from the Medicare Beneficiary Database (MBD), we were concerned about the quality of that data, and chose instead to use the dual eligible markers we obtained from the MBD, which we believed were of higher quality.

diagnoses. The payment year 2006 (based on 2005 diagnoses) Rx-HCC Risk Score File is used in this study.[23]

Data Consistency and Quality Issues. Developing the analytical data files for this report required merging multiple data sources from the MBD, HPMS, and other data sources. The data from different source files were not always fully consistent (e.g., a small number of plans or counties might not match between data files). We merged files and reconciled data as completely as possible, and merges were usually perfect or nearly so. But because of a small number of nonmerges in some instances, the sample (number) of plans, counties, or enrollees may differ slightly among some tables, years, variables, or analyses in this report. These minor inconsistencies should not have any material effect on the results that we report.

In some cases, we found that variables were not reported accurately in the source data. For example, not all Part D plans may have responded to certain items on the HPMS, and certain MBD fields did not contain usable data. If data fields did not appear to be substantially complete and accurate, we did not use them in our analyses.

5.3 Summary of Demonstration versus Non-Demonstration Plan Availability

The relative availability of demonstration versus non-demonstration enhanced plans affects the number of enrollees in each. **Table 5-1** shows national counts of plan type variants analyzed in this report. Despite policy makers' concerns that few organizations might choose to offer enhanced benefits in the absence of the reinsurance demonstration, we found that there were 1,726 basic benefits packages in 2007 and 2,375 enhanced plans in 2007. These counts of plans represent increases over 2006 of 8.7 percent and 53.7 percent, respectively. Of particular note, we found a large increase in the number of non-demonstration enhanced plans between 2006 and 2007. This suggests that, based on initial experience with Part D in 2006, organizations were much more willing to offer enhanced products outside of the demonstration 1 year later.

The fixed capitation model was not elected by any PDPs in 2006 and 2007. It was used by 34 MA-PDs in 2006, but most of these left the market by 2007, leaving only 10 MA-PDs on the fixed capitation plan in 2007. Many of these plans may have switched to the flexible capitation plan, which experienced a 14 percent increase in MA-PDs between 2006 and 2007. Plans may not have elected the fixed option, where full coverage begins at $5,100 in total drug expenditures, because they were afraid of selection of high-cost users into these plans. For the flexible option, catastrophic coverage must begin when the patient has paid $3,600, generally after more than $13,600 in drug expenses. The fixed capitation benefit mandates that catastrophic coverage begin after only $5,100 in drug expenses. In other words, the fixed capitation benefit is a more generous benefit, particularly for high drug utilizers.

[23] At the time we conducted this enrollment analysis, 2007 Rx-HCC risk scores were not yet available.

Table 5-1
Counts of Medicare Part D plan type variants, 2006-2007

Counts of plans	Year	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—Non-demonstration	Enhanced alternative demonstration plans—Flexible capitation	Enhanced alternative demonstration plans—Fixed capitation
PDP	2007	222	257	523	736	171	0
PDP	2006	134	314	386	435	177	0
PDP	% Change	66%	−18%	35%	69%	−3%	0%
MA-PDs	2007	293	47	384	1,101	357	10
MA-PDs	2006	255	150	349	587	312	34
MA-PDs	% Change	15%	−69%	10%	88%	14%	−71%
All plans	2007	515	304	907	1,837	528	10
All plans	2006	389	464	735	1,022	489	34
All plans	% Change	32%	−34%	23%	80%	8%	−71%

SOURCE: RTI analysis of 2006 and 2007 Medicare Health Plan Data Management System (HPMS) data.

5.4 Enrollment Overall and by Plan Type

Our initial analysis focused on overall enrollment. Our primary results are shown in **Table 5-2**. Both in 2006 and 2007, most Medicare beneficiaries who enrolled in a Medicare Part D plan chose a basic plan. In both years, roughly twice as many Medicare Part D enrollees chose basic plans compared to enhanced plans. Medicare Part D enrollees also enrolled in greater numbers in standalone PDPs compared to MA-PDs. However, enrollment trends between 2006 and 2007 may in the future result in different patterns. Between these years, enrollment in most basic plans declined, with overall enrollment in basic plans declining 0.8 percent between 2006 and 2007. The exception was enrollment in basic alternative plans, which increased a total of 8.1 percent. By comparison, enrollment in enhanced plans showed substantial growth even over this two year period. Enrollment in almost all enhanced plans climbed between 2006 and 2007, resulting in an overall increase of 21.5 percent. Therefore, while basic Part D plans appear to have been the initial choice for Medicare Part D enrollments, trends may suggest greater emphasis on plans offering enhanced benefits in the future. It is also possible that beneficiaries may have been responding to slight improvements in some plans in gap coverage and other benefits.

Table 5-2
Medicare Part D enrollment, by plan type, 2006-2007

Plan type	All plans	Basic benefit plans—All basic	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—All enhanced	Enhanced alternative plans—Non-demo	Enhanced alternative plans—All demo	Enhanced alternative plans—Demo flexible capitation	Enhanced alternative plans—Fixed capitation
2007										
All plans	21,729,282	14,059,046	3,211,415	2,574,617	8,273,014	7,670,236	4,356,295	3,313,941	3,234,849	79,092
PDP	15,793,543	12,492,207	2,862,322	2,410,593	7,219,292	3,301,336	1,428,450	1,872,886	1,872,886	0
MA-PD	5,935,739	1,566,839	349,093	164,024	1,053,722	4,368,900	2,927,845	1,441,055	1,361,963	79,092
2006										
All plans	20,485,435	14,170,943	3,695,340	2,825,812	7,649,791	6,314,492	2,942,202	3,372,290	3,044,128	328,162
PDP	15,179,637	12,525,859	3,332,357	2,566,736	6,626,766	2,653,778	915,987	1,737,791	1,737,791	0
MA-PD	5,305,798	1,645,084	362,983	259,076	1,023,025	3,660,714	2,026,215	1,634,499	1,306,337	328,162
2006-2007 *Change in enrollment*										
All plans	1,243,847	-111,897	-483,925	-251,195	623,223	1,355,744	1,414,093	-58,349	190,721	-249,070
PDP	613,906	-33,652	-470,035	-156,143	592,526	647,558	512,463	135,095	135,095	0
MA-PD	629,941	-78,245	-13,890	-95,052	30,697	708,186	901,630	-193,444	55,626	-249,070
2006-2007 *Percentage change in enrollment*										
All plans	6.1	-0.8	-13.1	-8.9	8.1	21.5	48.1	-1.7	6.3	-75.9
PDP	4.0	-0.3	-14.1	-6.1	8.9	24.4	55.9	7.8	7.8	0
MA-PD	11.9	-4.8	-3.8	-36.7	3.0	19.3	44.5	-11.8	4.3	-75.9

NOTES:

1. We exclude employer-only plans, PACE plans, and enrollment in Puerto Rico and U.S. Territories.
2. Enrollment figures as of July 1, 2006 and July 1, 2007.

SOURCE: RTI analysis of 2006-2007 Medicare Beneficiary Database.

We focused further on enrollment by plan type as shown in **Table 5-3**. These results again show that the majority of Part D enrollees (64.7 percent in 2007) have chosen basic plans, but that this figure declined (from 69.2 percent) since 2006. We also found that the majority of Part D enrollees (72.7 in 2007) have chosen PDPs compared to MA-PDs (with 27.3 percent of Part D enrollees in 2007). These proportions have remained roughly the same since 2006. Comparing demonstration and non-demonstration plans, we found in 2006 that 30.8 percent of all Part D enrollees chose an enhanced plan, and 14.4 percent enrolled in a non-demonstration plan compared to 16.5 who chose a demonstration plan. When we compare these figures separately by organizational type, demonstration plans draw a larger proportion of enrollees in PDPs, whereas non-demonstration plans enroll more beneficiaries in MA-PDs. These trends change somewhat in 2007, likely due in part to a large increase in the number of non-demonstration enhanced plans offered. In 2007 we found that 35.3 percent of total enrollees chose enhanced plans, and 20.0 percent enrolled in a non-demonstration plan compared to 15.3 percent who elected a demonstration plan. The findings for PDP and MA-PDs remain, with PDPs drawing a larger proportion of demonstration enrollees and MA-PDs enrolling more non-demonstration enrollees in 2007.

As noted in Table 5-1, by 2007 there were many more non-demonstration enhanced plans available compared to demonstration enhanced plans. Therefore, it is not surprising that the majority of enrollees in enhanced Part D plans chose a non-demonstration plan in 2007. However, if we compare enrollment in demonstration versus non-demonstration plans (simply by dividing the total enrollment by the number of plans offered), we found that demonstration enhanced plans have attracted about 3 times as many enrollees compared to non-demonstration enhanced plans. In 2006, non-demonstration enhanced plans enrolled an average of 2,879 enrollees compared to an average of 6,448 enrollees per demonstration plans. In 2007, when we observed a sharp increase in the number of non-demonstration enhanced plans, we found an average of 2,371 enrollees in non-demonstration compared to 6,160 enrollees per demonstration plans. This suggests that while the total number of enrollees in non-demonstration enhanced plans is outpacing demonstration plans, the demonstration plans are much more successful—plan for plan—at attracting enrollees. There are a number of possible explanations for this finding. Demonstration plans, which include most of the largest national managed care organizations, may invest more in marketing and information dissemination aimed at attracting potential enrollees. Demonstration plans may also, on a market by market basis, have more financial flexibility that allows them to offer marginally more attractive benefits. However, in benefits analyses conducted for this project and reported separately (Greenwald, et al., 2008), we did not observe systematically better benefits offered by demonstration enhanced plans compared to non-demonstration plans.

We also analyzed total enrollment in MA-PDs by Medicare Advantage plan type. Results are shown in **Table 5-4.** We found in general that most MA-PD enrollees across all plan types are enrolled in HMOs. This is not surprising given that the majority of MA enrollees are enrolled in HMO plans. We did find some differences in enrollment by MA plan type between demonstration and non-demonstration plans. In 2007, most (82.3 percent) of non-demonstration enhanced plan enrollees are enrolled in an HMO. By contrast, about half of demonstration plan enrollees (49.6 percent) are enrolled in an HMO, and another large proportion (39.2 percent) of demonstration plan enrollees are in PFFS plans. In fact, the majority of PFFS enrollees with Part D coverage get that coverage through demonstration enhanced plans.

Table 5-3
Medicare Part D enrollment, by plan type, column and row percentages, 2006-2007

Plan type	All plans	Basic benefit plans—All basic	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—All enhanced	Enhanced alternative plans—Non-demo	Enhanced alternative plans—All demo	Enhanced alternative plans—Demo flexible capitation	Enhanced alternative plans—Fixed capitation
2007										
Column percentages										
All plans	100	100	100	100	100	100	100	100	100	100
PDP	72.7	88.9	89.1	93.6	87.3	43.0	32.8	56.5	57.9	0.0
MA-PD	27.3	11.1	10.9	6.4	12.7	57.0	67.2	43.5	42.1	100.0
2007										
Row percentages										
All plans	100	64.7	14.8	11.8	38.1	35.3	20.0	15.3	14.9	0.4
PDP	100	79.1	18.1	15.3	45.7	20.9	9.0	11.9	11.9	0.0
MA-PD	100	26.4	5.9	2.8	17.8	73.6	49.3	24.3	22.9	1.3
2006										
Column percentages										
All plans	100	100	100	100	100	100	100	100	100	100
PDP	74.1	88.4	90.2	90.8	86.6	42.0	31.1	51.5	57.1	0.0
MA-PD	25.9	11.6	9.8	9.2	13.4	58.0	68.9	48.5	42.9	100.0
2006										
Row percentages										
All plans	100	69.2	18.0	13.8	37.3	30.8	14.4	16.5	14.9	1.6
PDP	100	82.5	22.0	16.9	43.7	17.5	6.0	11.4	11.4	0.0
MA-PD	100	31.0	6.8	4.9	19.3	69.0	38.2	30.8	24.6	6.2
2006										
Column percentages (change in percentage points)										
All plans	—	—	—	—	—	—	—	—	—	—
PDP	-1.4	0.5	-1.0	2.8	0.6	1.0	1.7	5.0	0.8	0.0
MA-PD	1.4	-0.5	1.0	-2.8	-0.6	-1.0	-1.7	-5.0	-0.8	0.0
2006-2007										
Row percentages (change in percentage points)										
All plans	—	-4.5	-3.3	-1.9	0.7	4.5	5.7	-1.2	0.0	-1.2
PDP	—	-3.4	-3.8	-1.6	2.1	3.4	3.0	0.4	0.4	0.0
MA-PD	—	-4.6	-1.0	-2.1	-1.5	4.6	11.1	-6.5	-1.7	-4.9

NOTES:

1. We exclude employer-only plans, PACE plans, and enrollment in Puerto Rico and U.S. Territories.
2. Enrollment figures as of July 1, 2006 and July 1, 2007.

SOURCE: RTI analysis of 2006-2007 Medicare Beneficiary Database.

Table 5-4
MA-PD enrollment, by plan type, 2006-2007

Plan type	All plans	Basic benefit plans—All basic	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—All enhanced	Enhanced alternative plans—Non-demo	Enhanced alternative plans—All demo	Enhanced alternative plans—Demo flexible capitation	Enhanced alternative plans—Fixed capitation
2007										
Column percentages										
HMO	72.5	75.1	85.5	61.8	73.7	71.5	82.3	49.6	52.1	6.5
Local PPO	5.5	7.4	1.3	18.1	7.7	4.8	5.7	2.9	3.1	0.0
Regional PPO	3.1	4.5	0.0	4.0	6.1	2.5	3.5	0.6	0.7	0.0
PFFS	13.4	5.4	1.2	0.0	7.7	16.3	5.1	39.2	41.5	0.0
Cost/other	5.6	7.6	12.0	16.1	4.7	4.9	3.5	7.6	2.6	93.5
2007										
Row percentages										
HMO	—	27.4	6.9	2.4	18.1	72.6	56.0	16.6	16.5	0.1
Local PPO	—	35.6	1.4	9.1	25.1	64.4	51.4	13.0	13.0	0.0
Regional PPO	—	39.0	0.0	3.6	35.4	61.0	56.0	5.0	5.0	0.0
PFFS	—	10.6	0.5	0.0	10.1	89.4	18.6	70.8	70.8	0.0
Cost/other	—	35.8	12.7	8.0	15.1	64.2	31.0	33.1	10.7	22.4
2006										
Column percentages										
HMO	78.1	83.6	86.3	69.5	86.3	75.7	92.1	55.3	51.2	71.5
Local PPO	4.9	7.5	0.6	15.3	8.0	3.7	3.1	4.4	4.4	4.6
Regional PPO	1.5	0.6	1.9	0.2	0.3	1.9	2.5	1.2	1.5	0.0
PFFS	9.4	0.9	0.5	4.0	0.3	13.3	2.1	27.1	33.9	0.0
Cost/other	6.0	7.3	10.8	10.9	5.2	5.5	0.2	12.0	9.0	23.8
2006										
Row percentages										
HMO	—	33.2	7.6	4.3	21.3	66.8	45.0	21.8	16.1	5.7
Local PPO	—	47.8	0.8	15.4	31.6	52.2	24.0	28.2	22.3	5.9
Regional PPO	—	13.2	8.6	0.8	3.9	86.8	62.2	24.5	24.5	0.0
PFFS	—	3.0	0.4	2.1	0.6	97.0	8.5	88.5	88.5	0.0
Cost/other	—	37.5	12.2	8.8	16.5	62.5	1.5	61.0	36.6	24.4

(continued)

Table 5-4 (continued)
MA-PD enrollment, by plan type, 2006-2007

Plan type	All plans	Basic benefit plans—All basic	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—All enhanced	Enhanced alternative plans—Non-demo	Enhanced alternative plans—All demo	Enhanced alternative plans—Demo flexible capitation	Enhanced alternative plans—Fixed capitation
2006-2007										
Column percentages (change in percentage points)										
HMO	-5.6	-8.5	-0.8	-7.7	-12.6	-4.2	-9.8	-5.7	0.9	-65.0
Local PPO	0.6	-0.1	0.7	2.8	-0.3	1.1	2.6	-1.5	-1.3	-4.6
Regional PPO	1.6	3.9	-1.9	3.8	5.8	0.6	1.0	-0.6	-0.8	0.0
PFFS	-3.8	6.7	11.5	12.1	4.4	-8.4	1.4	-19.5	-31.3	93.5
Cost/other	-6.0	-7.3	-10.8	-10.9	-5.2	-5.5	-0.2	-12.0	-9.0	-23.8
2006-2007										
Row percentages (change in percentage points)										
HMO	—	-5.8	-0.7	-1.9	-3.2	5.8	11.0	-5.2	0.4	-5.6
Local PPO	—	-12.2	0.6	-6.3	-6.5	12.2	27.4	-15.2	-9.3	-5.9
Regional PPO	—	25.8	-8.6	2.8	31.5	-25.8	-6.2	-19.5	-19.5	0.0
PFFS	—	7.6	0.1	-2.1	9.5	-7.6	10.1	-17.7	-17.7	0.0
Cost/other	—	-1.7	0.5	-0.8	-1.4	1.7	29.5	-27.9	-25.9	-2.0

NOTES:

1. We exclude employer−only plans, PACE plans, and enrollment in Puerto Rico and U.S. Territories.
2. Enrollment figures as of July 1, 2006 and July 1, 2007.

SOURCE: RTI analysis of 2006−2007 Medicare Beneficiary Database.

5.5 Enrollment by Beneficiary Characteristics

The next analysis focused on comparisons of enrollment trends by beneficiary characteristics. We compared enrollment trends by beneficiary age, sex and dual-eligibility status.

We chose these characteristics because they are uniformly available in the Medicare administrative enrollment files, but also because they have implications for selection bias. Age, sex and dual-eligibility status have all been shown to be related to health insurance risk, the older, male and dually-entitled beneficiaries are on average the more costly enrollees. Findings that suggest that plans have unequal distributions of some groups of beneficiaries may signal potential risk selection issues. Adverse risk selection can be problematic particularly among plans that offer enhanced products, which tend to attract on average sicker, more costly enrollees.

A summary of our results are shown in **Table 5-5**. We found that in both 2006 and 2007 the distribution of enrollment characteristics varies little between overall plan types, suggesting little evidence for selection bias. For example, in 2007 basic plans had about 27 percent of their enrollment from the under 65 disabled population, 35 percent from the 65-74 age group, about 26 percent from the 75-84 age group, and about 12 percent from the over 85 age group. The exception was the actuarially equivalent basic plans, which drew a slightly larger proportion of enrollment from the under 65 age group. Similar patterns were found among the enhanced plans, and there appears to be little variation in beneficiary characteristics between demonstration and non-demonstration enrollees. In 2007, enhanced plans drew about 11 percent of their enrollment from the under 65 disabled population, 46 percent of enrollment from the 65-74 age group, about 32 percent from the 75-84 age group, and another approximately 11 percent from the over 85 age group. We saw that non-demonstration plans drew slightly larger proportions of their enrollees from the older age groups. Similar patterns were found for gender. There were differences between plan types with regard to dual-eligibility status, but this is an effect of specific policy requirements. Medicaid eligible beneficiaries can enroll in a basic plan, but must pay out of pocket for additional premiums if they enroll in an enhanced plan. Therefore, as expected, the majority of dually entitled beneficiaries have enrolled in basic plans. The analysis found that actuarially equivalent basic plans had a much smaller proportion of dually entitled beneficiaries compared to other basic plans.

To further investigate the potential differences in enrollment by beneficiary characteristics, we separated the analysis for PDP and MA-PDs. **Table 5-6** shows our analysis for PDPs. We found that PDP enhanced plans overall tended to have an older age distribution compared to basic plans. Within basic plans, actuarially equivalent basic plans have the youngest age distribution. This is expected as younger Medicare beneficiaries would on average be associated with lower costs and utilization, consistent with the choice of a prescription drug plan with lower benefits and costs. We found little variation in the age distribution among the demonstration and non-demonstration enhanced plans. We also analyzed gender differences, and found little variation between basic and enhanced plans, or within specific plan types. As expected, most dually eligible Part D beneficiaries were enrolled in basic plans. Non-demonstration enhanced PDPs had a slightly larger proportion of dually eligible enrollees compared to demonstration PDPs.

Table 5-5
Medicare Part D enrollment, by beneficiary characteristics, column percentages, 2006-2007

Variable	All plans	Basic benefit plans—All basic	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—All enhanced	Enhanced alternative plans—Non-demo	Enhanced alternative plans—All demo	Enhanced alternative plans—Demo flexible capitation	Enhanced alternative plans—Fixed capitation	Non-Part D
2007											
Age											
0-64	21.1	26.6	25.3	37.4	23.7	11.1	10.6	11.9	12.0	8.2	11.1
65-74	38.9	35.0	36.4	27.9	36.7	46.0	44.9	47.5	47.5	49.2	45.4
75-84	28.1	26.1	26.1	22.5	27.2	31.7	33.0	30.0	30.0	32.2	32.0
85+	11.9	12.3	12.2	12.1	12.4	11.1	11.5	10.6	10.6	10.3	11.5
Sex											
Male	39.3	38.4	37.9	39.4	38.4	40.9	40.6	41.2	41.2	43.4	49.0
Female	60.7	61.6	62.1	60.6	61.6	59.1	59.4	58.8	58.8	56.6	51.0
Dual eligibility											
Medicaid	31.6	44.2	44.2	66.8	37.2	8.5	9.9	6.6	6.6	10.2	0.9
Non-Medicaid	68.4	55.8	55.8	33.2	62.8	91.5	90.1	93.4	93.4	89.8	99.1
2006											
Age											
0-64	21.1	25.5	27.9	32.8	21.6	11.1	9.9	12.1	12.5	8.2	10.6
65-74	38.6	35.2	35.7	30.2	36.8	46.4	45.7	46.9	46.5	51.1	45.1
75-84	28.6	27.0	25.1	24.6	28.8	32.1	33.7	30.6	30.5	31.5	32.8
85+	11.8	12.3	11.2	12.4	12.8	10.5	10.7	10.3	10.5	9.2	11.4
Sex											
Male	39.0	38.2	38.1	38.4	38.2	40.9	40.6	41.1	40.9	42.4	48.4
Female	61.0	61.8	61.9	61.6	61.8	59.1	59.4	58.9	59.1	57.6	51.6
Dual eligibility											
Medicaid	32.5	43.4	47.6	57.5	36.2	7.8	9.1	6.7	6.3	10.8	0.7
Non-Medicaid	67.5	56.6	52.4	42.5	63.8	92.2	90.9	93.3	93.7	89.2	99.3

(continued)

Table 5-5 (continued)
Medicare Part D enrollment, by beneficiary characteristics, column percentages, 2006-2007

Variable	All plans	Basic benefit plans—All basic	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—All enhanced	Enhanced alternative plans—Non-demo	Enhanced alternative plans—All demo	Enhanced alternative plans—Demo flexible capitation	Enhanced alternative plans—Fixed capitation	Non-Part D
2006-2007											
Change in percentage points											
Age											
0-64	0.03	1.1	-2.6	4.6	2.1	0.0	0.7	-0.2	-0.5	0.0	0.5
65-74	0.3	-0.2	0.7	-2.3	-0.1	-0.4	-0.8	0.6	1.0	-1.9	0.3
75-84	-0.5	-0.9	1.0	-2.1	-1.6	-0.4	-0.7	-0.6	-0.5	0.7	-0.8
85+	0.1	0.0	1.0	-0.3	-0.4	0.6	0.8	0.3	0.1	1.1	0.1
Sex											
Male	0.3	0.2	-0.2	1.0	0.2	0.0	0.0	0.1	0.3	1.0	0.6
Female	-0.3	-0.2	0.2	-1.0	-0.2	0.0	0.0	-0.1	-0.3	-1.0	-0.6
Dual eligibility											
Medicaid	-0.9	0.8	-3.4	9.3	1.0	0.7	0.8	-0.1	0.3	-0.6	0.2
Non-Medicaid	0.9	-0.8	3.4	-9.3	-1.0	-0.7	-0.8	0.1	-0.3	0.6	-0.2

NOTES:

1. We exclude employer−only plans, PACE plans, and enrollment in Puerto Rico and U.S. Territories.
2. Enrollment figures as of July 1, 2006 and July 1, 2007.

SOURCE: RTI analysis of 2006−2007 Medicare Beneficiary Database.

Table 5-6
PDP enrollment, by beneficiary characteristics, column percentages, 2006-2007

Variable	All plans	Basic benefit plans—All basic	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—All enhanced	Enhanced alternative plans—Non-demo	Enhanced alternative plans—All demo	Enhanced alternative plans—Demo flexible capitation	Enhanced alternative plans—Fixed capitation
2007										
Age										
0-64	24.4	27.9	24.9	38.9	25.4	10.8	11.4	10.4	10.4	—
65-74	36.6	33.9	36.5	27.0	35.1	47.0	46.0	47.9	47.9	—
75-84	26.7	25.7	26.3	21.9	26.7	30.4	30.8	30.1	30.1	—
85+	12.3	12.5	12.3	12.1	12.7	11.7	11.9	11.6	11.6	—
Sex										
Male	38.5	38.3	38.0	39.4	38.0	39.1	39.0	39.2	39.2	—
Female	61.5	61.7	62.0	60.6	62.0	60.9	61.0	60.8	60.8	—
Dual eligibility										
Medicaid	37.3	46.0	40.0	69.2	40.5	4.5	6.0	3.4	3.4	—
Non-Medicaid	62.7	54.0	60.0	30.8	59.5	95.5	94.0	96.6	96.6	—
2006										
Age										
0-64	24.2	27.0	27.9	35.1	23.4	11.1	9.4	12.0	12.0	—
65-74	36.6	34.4	35.8	28.9	35.7	47.2	48.2	46.7	46.7	—
75-84	27.1	26.3	25.1	23.6	28.0	30.6	31.4	30.2	30.2	—
85+	12.1	12.3	11.3	12.4	12.8	11.1	10.9	11.2	11.2	—
Sex										
Male	38.2	38.1	38.3	38.3	38.0	38.7	38.0	39.0	39.0	—
Female	61.8	61.9	61.7	61.7	62.0	61.3	62.0	61.0	61.0	—
Dual eligibility										
Medicaid	38.4	45.7	45.1	62.0	39.7	3.8	4.3	3.6	3.6	—
Non-Medicaid	61.6	54.3	54.9	38.0	60.3	96.2	95.7	96.4	96.4	—

(continued)

Table 5-6 (continued)
PDP enrollment, by beneficiary characteristics, column percentages, 2006-2007

Variable	All plans	Basic benefit plans—All basic	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—All enhanced	Enhanced alternative plans—Non-demo	Enhanced alternative plans—All demo	Enhanced alternative plans—Demo flexible capitation	Enhanced alternative plans—Fixed capitation
2006-2007										
Change in percentage points										
Age										
0-64	0.1	0.9	-2.9	3.8	2.0	-0.2	1.9	-1.5	-1.5	—
65-74	0.0	-0.5	0.7	-1.9	-0.6	-0.1	-2.3	1.2	1.2	—
75-84	-0.4	-0.6	1.2	-1.6	-1.3	-0.2	-0.7	-0.1	-0.1	—
85+	0.2	0.2	1.0	-0.3	-0.1	0.6	1.0	0.4	0.4	—
Sex										
Male	0.2	0.1	-0.3	1.1	0.0	0.5	1.0	0.2	0.2	—
Female	-0.2	-0.1	0.3	-1.1	0.0	-0.5	-1.0	-0.2	-0.2	—
Dual eligibility										
Medicaid	-1.1	0.2	-5.0	7.2	0.8	0.7	1.7	-0.1	-0.1	—
Non-Medicaid	1.1	-0.2	5.0	-7.2	-0.8	-0.7	-1.7	0.1	0.1	—

NOTES:

1. We exclude employer-only plans, PACE plans, and enrollment in Puerto Rico and U.S. Territories.
2. Enrollment figures as of July 1, 2006 and July 1, 2007.

SOURCE: RTI analysis of 2006-2007 Medicare Beneficiary Database.

The companion analysis for MA-PDs is shown in **Table 5-7**. Among MA-PDs, we found less of an age distribution difference between basic and enhanced plans overall relative to PDPs. This may be related to the ability of MA-PDs to subsidize the cost of enhanced Part D coverage with Medicare Parts A and B rebates. Therefore, while MA-PDs are required to make at least basic Part D coverage available to their enrollees, many were able to provide enhanced Part D benefits at little or no additional cost, thereby reducing the price effect for their enrollees of choosing enhanced coverage relative to basic. There were a few findings of interest. Among basic MA-PDs, enrollees in the defined standard packages tended to be younger than enrollees in other basic plans. We also found that demonstration enhanced MA-PD enrollees were younger than non-demonstration MA-PD enrollees. As in the PDP analysis, we found few differences among any plans with respect to gender, and a strong tendency for dually eligible beneficiaries to be enrollees in basic MA-PDs. However, a slightly larger proportion of dually eligible beneficiaries are enrolled in enhanced MA-PDs compared to enhanced PDPs. This may be a result of the subsidization of enhanced Part D benefits possible in Medicare Advantage.

5.6 Enrollment by Geographic Designation

The next set of analyses considered whether enrollment differences among plans varied by geographic designations, defined as either county urbanicity or census region. County urbanicity was analyzed as a way to determine whether enrollment trends in demonstration versus non-demonstration plans varied in urban and rural counties. Analysis by census region allows us to check for differential enrollment patterns in different areas of the country.

In **Table 5-8** we summarize our findings for the analysis by county urbanicity. Similar to the Non-Part D population, we found that most enrollees in Part D plans of all benefit types are found in urban rather than rural counties. In 2007, 77.3 percent of all Part D enrollees, 74.8 percent of basic plan enrollees, and 81.9 percent of enhanced plan enrollees were residents of urban counties. Within basic plans, we found few large differences among plan types though enrollees in defined standard plans were less urban than other basic plan enrollees. Among enhanced plans, there was some consistency in the urban majority of enrollees. However, a greater proportion of non-demonstration enrollees were residents of urban counties (87.1 percent) compared to enrollees in demonstration plans (75.0 percent). This suggests that non-demonstration plans draw greater proportions of urban relative to rural enrollees. There were few differences among the demonstration plans (with the exception of high urban concentration of the fixed capitation plans—we discounted the relevance of this finding due to the small number of fixed capitation plans). We also saw no large urbanicity-based enrollment changes between 2006 and 2007, or between PDP and MA-PD plans.

Table 5-7
MA-PD enrollment, by beneficiary characteristics, column percentages, 2006-2007

Variable	All plans	Basic benefit plans—All basic	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—All enhanced	Enhanced alternative plans—Non-demo	Enhanced alternative plans—All demo	Enhanced alternative plans—Demo flexible capitation	Enhanced alternative plans—Fixed capitation
2007										
Age										
0-64	12.6	16.0	28.5	15.5	11.9	11.3	10.1	13.7	14.1	8.2
65-74	44.9	43.9	35.4	41.2	47.1	45.3	44.4	47.1	47.0	49.2
75-84	31.8	29.3	24.9	31.3	30.5	32.7	34.1	30.0	29.9	32.2
85+	10.7	10.8	11.1	12.1	10.5	10.6	11.4	9.2	9.1	10.3
Sex										
Male	41.5	39.7	36.8	39.0	40.8	42.2	41.3	43.8	43.9	43.4
Female	58.5	60.3	63.2	61.0	59.2	57.8	58.7	56.2	56.1	56.6
Dual eligibility										
Medicaid	16.4	30.2	78.5	31.3	14.0	11.5	11.8	10.8	10.9	10.2
Non-Medicaid	83.6	69.8	21.5	68.7	86.0	88.5	88.2	89.2	89.1	89.8
2006										
Age										
0-64	12.0	14.0	28.3	10.1	9.9	11.1	10.1	12.3	13.3	8.2
65-74	44.5	41.6	35.3	42.8	43.6	45.8	44.6	47.2	46.3	51.1
75-84	32.8	32.2	25.6	34.5	33.9	33.1	34.7	31.1	31.0	31.5
85+	10.7	12.3	10.9	12.6	12.7	10.0	10.6	9.4	9.4	9.2
Sex										
Male	41.3	38.8	36.9	39.1	39.4	42.4	41.8	43.2	43.4	42.4
Female	58.7	61.2	63.1	60.9	60.6	57.6	58.2	56.8	56.6	57.6
Dual eligibility										
Medicaid	15.5	26.0	70.6	12.1	13.7	10.8	11.3	10.1	10.0	10.8
Non-Medicaid	84.5	74.0	29.4	87.9	86.3	89.2	88.7	89.9	90.0	89.2

(continued)

Table 5-7 (continued)
MA-PD enrollment, by beneficiary characteristics, column percentages, 2006-2007

Variable	All plans	Basic benefit plans—All basic	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—All enhanced	Enhanced alternative plans—Non-demo	Enhanced alternative plans—All demo	Enhanced alternative plans—Demo flexible capitation	Enhanced alternative plans—Fixed capitation
2006-2007										
Change in percentage points										
Age										
0-64	0.6	2.0	0.3	5.4	2.0	0.2	0.0	1.4	0.8	0.0
65-74	0.4	2.2	0.1	-1.6	3.5	-0.5	-0.1	-0.2	0.7	-1.9
75-84	-1.0	-2.8	-0.6	-3.3	-3.4	-0.4	-0.7	-1.1	-1.1	0.8
85+	0.0	-1.5	0.3	-0.5	-2.2	0.6	0.8	-0.2	-0.3	1.1
Sex										
Male	0.2	0.9	-0.1	-0.1	1.4	-0.3	-0.5	0.7	0.5	1.1
Female	-0.2	-0.9	0.1	0.1	-1.4	0.3	0.5	-0.7	-0.5	-1.1
Dual eligibility										
Medicaid	0.9	4.1	7.9	19.2	0.3	0.7	0.5	0.7	0.9	-0.6
Non-Medicaid	-0.9	-4.1	-7.9	-19.2	-0.3	-0.7	-0.5	-0.7	-0.9	0.6

NOTES:

1. We exclude employer-only plans, PACE plans, and enrollment in Puerto Rico and U.S. Territories.
2. Enrollment figures as of July 1, 2006 and July 1, 2007.

SOURCE: RTI analysis of 2006-2007 Medicare Beneficiary Database.

Table 5-8
Medicare Part D enrollment, by urbanicity, column percentages, 2006-2007

Plan Type	All plans	Basic benefit plans—All basic	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—All enhanced	Enhanced alternative plans—Non-demo	Enhanced alternative plans—All demo	Enhanced alternative plans—Demo flexible capitation	Enhanced alternative plans—Fixed capitation	Non-Part D
2007											
Urban	77.3	74.8	70.2	79.5	75.2	81.9	87.1	75.0	74.6	93.0	78.3
PDP	52.4	64.8	60.4	74.0	63.6	29.7	23.2	38.2	39.2	0.0	—
MA-PD	24.9	10.1	9.9	5.6	11.5	52.2	63.9	36.8	35.4	93.0	—
Rural	22.7	25.2	29.8	20.5	24.8	18.1	12.9	25.0	25.4	7.0	21.7
PDP	20.3	24.1	28.8	19.7	23.6	13.3	9.6	18.3	18.7	0.0	—
MA-PD	2.4	1.1	1.0	0.8	1.2	4.8	3.3	6.7	6.7	7.0	—
2006											
Urban	77.3	75.0	69.9	70.7	79.1	82.6	88.3	77.5	75.3	98.1	78.2
PDP	53.3	64.4	61.1	62.4	66.7	28.4	21.9	34.0	37.7	0.0	—
MA-PD	24.1	10.7	8.8	8.3	12.4	54.2	66.4	43.5	37.6	98.1	—
Rural	22.7	25.0	30.1	29.3	20.9	17.4	11.7	22.5	24.7	1.9	21.8
PDP	20.8	24.0	29.1	28.5	20.0	13.6	9.2	17.5	19.4	0.0	—
MA-PD	1.8	1.0	1.0	0.9	1.0	3.8	2.4	5.0	5.3	1.9	—
2006-2007											
Change in percentage points											
Urban	0.03	-0.2	0.3	8.8	-3.9	-0.7	-1.2	-2.5	-0.7	-5.1	0.1
PDP	-0.9	0.4	-0.7	11.6	-3.1	1.3	1.3	4.2	1.5	0.0	—
MA-PD	0.8	-0.6	1.1	-2.7	-0.9	-2.0	-2.5	-6.7	-2.2	-5.1	—
Rural	-0.03	0.2	-0.3	-8.8	3.9	0.7	1.2	2.5	0.7	5.1	-0.1
PDP	-0.5	0.1	-0.3	-8.8	3.6	-0.3	0.4	0.8	-0.7	0.0	—
MA-PD	0.6	0.1	0.0	-0.1	0.2	1.0	0.9	1.7	1.4	5.1	—

NOTES:

1. We exclude employer−only plans, PACE plans, and enrollment in Puerto Rico and U.S. Territories.
2. Enrollment figures as of July 1, 2006 and July 1, 2007.

SOURCE: RTI analysis of 2006−2007 Medicare Beneficiary Database.

Table 5-9 presents an enrollment analysis by census region. In both 2006 and 2007, total Part D plan enrollees were generally distributed evenly across the country, with some exceptions. For example, in 2007, we found that among all Part D plans, the Northeast has the lowest concentration (18.8 percent) of Part D plan enrollees, and the South (with 37.8 percent) had the highest concentration of enrollees.[24,25] These patterns persisted for both basic and enhanced benefit packages. Comparing demonstration and non-demonstration enhanced plans, we found that enrollment in non-demonstration enhanced plans—particularly among MA-PDs—was much more concentrated in the Northeast where 22.7 percent of non-demonstration enrollees were located, compared to 7.9 percent of demonstration enrollees. Similarly, there was a higher concentration of non-demonstration enrollees in the West compared to demonstration enrollees. Demonstration enrollees, driven by the dominant flexible capitation option plans, were concentrated in the Midwest and South. There were few changes in these trends between 2006 and 2007.

5.7 Enrollment by Plan Benefit Characteristics

One purpose of the Part D reinsurance demonstration was to encourage plans to offer a wider array of enhanced benefit products. Therefore, one measure of the demonstration's impact is to determine whether enrollees in demonstration plans are receiving different enhanced benefits compared to basic and non-demonstration enhanced plans. Enhanced benefits can be found in a number of forms—reduced plan deductibles and gap coverage are two of the most common enhancements and we analyzed enrollment by these plan characteristics. Different benefit package generosity is closely tied to beneficiary out of pocket costs, particularly monthly premiums; we analyzed enrollment by plan premiums[26].

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[24] For the Non-Part D population, the West had the lowest concentration (16.6 percent), with the Northeast having the second lowest concentration (19.9 percent). The South again had the highest concentration (38.5 percent).

[25] It is noteworthy however that the distribution of PDP actuarially equivalent plan enrollees experienced a non-trivial change between 2006 and 2007, with percentage point changes of 10.4, -6.5, -9.0, and 6.8 for, respectively, the Northeast, Midwest, South, and West census regions. It is not immediately clear why these changes occurred. Possibly these changes are an artifact of the decrease in basic plan enrollment relative to enhanced plan enrollment over these two years.

[26] Plan premiums analyzed in this report are all net of Part A and B rebates, and reflect the premiums charged to beneficiaries.

Table 5-9
Medicare Part D enrollment, by census region, column percentages, 2006-2007

Plan Type	All plans	Basic benefit plans—All basic	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—All enhanced	Enhanced alternative plans—Non-demo	Enhanced alternative plans—All demo	Enhanced alternative plans—Demo flexible capitation	Enhanced alternative plans—Fixed capitation	Non-Part D
2007											
Northeast	18.8	20.2	18.7	26.3	18.9	16.3	22.7	7.9	7.6	21.2	19.9
PDP	13.2	17.2	15.5	25.5	15.2	5.8	5.3	6.5	6.7	0.0	—
MA-PD	5.7	3.1	3.1	0.8	3.7	10.5	17.5	1.3	0.9	21.2	–
Midwest	22.5	22.4	28.6	14.7	22.4	22.7	17.5	29.6	30.3	0.0	25.0
PDP	18.3	21.3	26.9	14.3	21.3	12.8	8.6	18.2	18.7	0.0	—
MA-PD	4.2	1.1	1.6	0.4	1.1	10.0	8.9	11.3	11.6	0.0	—
South	37.8	37.8	35.8	34.8	39.5	37.9	33.9	43.1	44.1	0.0	38.5
PDP	29.1	35.3	33.8	32.7	36.6	17.7	15.1	21.3	21.8	0.0	—
MA-PD	8.7	2.5	2.0	2.1	2.9	20.1	18.8	21.8	22.4	0.0	—
West	20.8	19.6	17.0	24.2	19.2	23.1	25.8	19.5	18.0	78.8	16.6
PDP	12.1	15.1	12.9	21.2	14.1	6.7	3.8	10.5	10.7	0.0	—
MA-PD	8.7	4.5	4.1	3.1	5.1	16.4	22.0	9.0	7.3	78.8	—
2006											
Northeast	17.8	19.7	18.0	17.7	21.3	13.5	18.9	8.7	7.2	22.8	21.3
PDP	12.4	15.9	14.8	15.1	16.7	4.5	4.2	4.7	5.2	0.0	—
MA-PD	5.4	3.8	3.2	2.6	4.6	9.0	14.7	4.0	2.0	22.8	—
Midwest	22.8	23.1	28.4	21.2	21.2	22.2	20.3	23.8	26.2	1.6	24.7
PDP	19.1	21.5	26.9	20.1	19.5	13.5	10.1	16.4	18.2	0.0	—
MA-PD	3.7	1.5	1.5	1.1	1.7	8.7	10.2	7.4	8.0	1.6	—
South	38.3	37.9	38.9	43.8	35.2	39.1	36.8	41.2	45.6	0.0	37.8
PDP	30.3	36.0	37.0	42.0	33.3	17.7	13.8	21.1	23.3	0.0	—
MA-PD	7.9	1.9	1.9	1.7	2.0	21.4	22.9	20.1	22.3	0.0	—
West	21.1	19.3	14.7	17.4	22.3	25.2	24.0	26.2	20.9	75.6	16.2
PDP	12.3	15.0	11.6	13.6	17.2	6.3	2.9	9.3	10.3	0.0	—
MA-PD	8.8	4.3	3.2	3.8	5.1	18.9	21.1	16.9	10.6	75.6	—

(continued)

Table 5-9 (continued)
Medicare Part D enrollment, by census region, column percentages, 2006-2007

Plan Type	All plans	Basic benefit plans—All basic	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—All enhanced	Enhanced alternative plans—Non-demo	Enhanced alternative plans—All demo	Enhanced alternative plans—Demo flexible capitation	Enhanced alternative plans—Fixed capitation	Non-Part D
2006-2007											
Change in percentage points											
Northeast	1.0	0.5	0.7	8.6	-2.4	2.8	3.8	-0.8	0.4	-1.6	-1.4
PDP	0.8	1.3	0.7	10.4	-1.5	1.3	1.1	1.8	1.5	0.0	—
MA-PD	0.3	-0.7	-0.1	-1.8	-0.9	1.5	2.8	-2.7	-1.1	-1.6	—
Midwest	-0.3	-0.7	0.2	-6.5	1.2	0.5	-2.8	5.8	4.1	-1.6	0.3
PDP	-0.8	-0.2	0.0	-5.8	1.8	-0.7	-1.5	1.8	0.5	0.0	—
MA-PD	0.5	-0.4	0.1	-0.7	-0.6	1.3	-1.3	3.9	3.6	-1.6	—
South	-0.5	-0.1	-3.1	-9.0	4.3	-1.2	-2.9	1.9	-1.5	0.0	0.7
PDP	-1.2	-0.7	-3.2	-9.3	3.3	0.0	1.3	0.2	-1.5	0.0	—
MA-PD	0.8	0.6	0.1	0.4	0.9	-1.3	-4.1	1.7	0.1	0.0	—
West	-0.3	0.3	2.3	6.8	-3.1	-2.1	1.8	-6.7	-2.9	3.2	0.4
PDP	-0.2	0.1	1.3	7.6	-3.1	0.4	0.9	1.2	0.4	0.0	—
MA-PD	-0.1	0.2	0.9	-0.7	0.0	-2.5	0.9	-7.9	-3.3	3.2	—

NOTES:

1. We exclude employer−only plans, PACE plans, and enrollment in Puerto Rico and U.S. Territories.
2. Enrollment figures as of July 1, 2006 and July 1, 2007.

SOURCE: RTI analysis of 2006−2007 Medicare Beneficiary Database.

In **Table 5-10** we summarize our analysis of enrollment by plan premium categories. We categorized premiums as either zero or non-zero. First, not surprisingly, we found that only MA-PDs offer Part D coverage at a zero premium. Unlike PDPs, MA-PDs can subsidize beneficiary monthly premiums using available Parts A and B rebates. Second, basic benefit packages had a higher proportion of enrollees in zero premium plans, likely related to the greater availability of basic options with a zero premium. Comparing enhanced plans, we noted some differences in proportions of beneficiaries enrolled in zero premium plans between demonstration and non-demonstration plans. In 2007, non-demonstration enhanced plans had a greater proportion of their enrollees (39 percent) in zero premium plans compared to demonstration plans (30.6 percent). When the small number of fixed capitation plan enrollees were removed, the differences are even greater. This suggests that non-demonstration plans were attracting larger proportions of enrollees to zero premium plans by offering their enhancements at no additional costs compared to regular MA benefits. These relative findings were also evident in 2006, though in this earlier year, all enhanced plans had greater proportions of enrollees in zero premium plans.

Monthly premiums often reflect, in part, the relative generosity of the benefit packages. Therefore, we also analyzed enrollment in two key benefit enhancement options: reduced plan deductibles and gap coverage. The statutory standard deductible in 2007 was $265, so all plans with enrollees in plans charging that amount have not reduced plan deductibles as an enhancement option. **Table 5-11** summarizes our findings in comparing enrollment in reduced plan deductibles among basic alternative (the only basic plan option that can vary deductibles) and enhanced plans. We found that enhanced plans have virtually all their enrollment (99.2 percent) in zero deductible plans compared to basic alternative plans (75.2 percent). Reducing deductibles is one way to improve plan generosity, and in theory, the availability of capitated reinsurance payments under the demonstration might have allowed demonstration participating plans to reduce deductibles to attract enrollees. However, as noted, we found that virtually all enrollees in enhanced plans were enrolled in zero deductible plans. We did find that in 2007 non-demonstration enhanced plans as a whole had a slightly lower percentage of enrollees (98.6 percent) in zero deductible plans compared to demonstration plans (100 percent).

Table 5-10
Medicare Part D enrollment, by zero premium plans, 2006-2007

Plan Type	All plans	Basic benefit plans—All basic	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—All enhanced	Enhanced alternative plans—Non-demo	Enhanced alternative plans—All demo	Enhanced alternative plans—Demo flexible capitation	Enhanced alternative plans—Fixed capitation
2007										
Column percentages										
Zero premium	13.9	2.2	0.6	1.4	3.1	35.4	39.0	30.6	29.0	93.9
PDP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MA-PD	13.9	2.2	0.6	1.4	3.1	35.4	39.0	30.6	29.0	93.9
Non-zero premium	86.1	97.8	99.4	98.6	96.9	64.6	61.0	69.4	71.0	6.1
PDP	72.7	88.9	89.1	93.6	87.3	43.0	32.8	56.5	57.9	0.0
MA-PD	13.4	8.9	10.3	5.0	9.6	21.6	28.2	12.9	13.1	6.1
2007										
Row percentages										
Zero premium	—	10.4	0.6	1.2	8.6	89.6	56.1	33.5	31.1	2.5
PDP	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MA-PD	—	10.4	0.6	1.2	8.6	89.6	56.1	33.5	31.1	2.5
Non-zero premium	—	73.5	17.1	13.6	42.8	26.5	14.2	12.3	12.3	0.0
PDP	—	79.1	18.1	15.3	45.7	20.9	9.0	11.9	11.9	0.0
MA-PD	—	43.1	11.4	4.4	27.3	56.9	42.2	14.7	14.5	0.2
2006										
Column percentages										
Zero premium	14.5	2.9	0.3	1.7	4.6	40.6	46.4	35.4	30.9	77.9
PDP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MA-PD	14.5	2.9	0.3	1.7	4.6	40.6	46.4	35.4	30.9	77.9
Non-zero premium	85.5	97.1	99.7	98.3	95.4	59.4	53.6	64.6	69.1	22.1
PDP	74.1	88.4	90.2	90.8	86.6	42	31.1	51.5	57.1	0.0
MA-PD	11.4	8.7	9.5	7.5	8.8	17.4	22.4	13	12.1	22.1
Zero premium	—	13.9	0.4	1.6	11.9	86.1	45.9	40.2	31.6	8.6
PDP	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MA-PD	—	13.9	0.4	1.6	11.9	86.1	45.9	40.2	31.6	8.6
Non-zero premium	—	78.6	21.0	15.9	41.7	21.4	9.0	12.4	12.0	0.4
PDP	—	82.5	22.0	16.9	43.7	17.5	6.0	11.4	11.4	0.0
MA-PD	—	52.8	15.0	9.0	28.7	47.2	28.3	18.9	15.7	3.1

(continued)

Table 5-10 (continued)
Medicare Part D enrollment, by zero premium plans, 2006-2007

Plan Type	All plans	Basic benefit plans—All basic	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—All enhanced	Enhanced alternative plans—Non-demo	Enhanced alternative plans—All demo	Enhanced alternative plans—Demo flexible capitation	Enhanced alternative plans—Fixed capitation
2006-2007										
Column percentages (change in percentage points)										
Zero premium	-0.6	-0.7	0.3	-0.3	-1.5	-5.2	-7.4	-4.8	-1.9	16.0
PDP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MA-PD	-0.6	-0.7	0.3	-0.3	-1.5	-5.2	-7.4	-4.8	-1.9	16.0
Non-zero premium	0.6	0.7	-0.3	0.3	1.5	5.2	7.4	4.8	1.9	-16.0
PDP	-1.4	0.5	-1.1	2.8	0.7	1.0	1.7	5.0	0.8	0.0
MA-PD	2.0	0.2	0.8	-2.5	0.8	4.2	5.8	-0.1	1.0	-16.0
2006-2007										
Row percentages (change in percentage points)										
Zero premium	—	-3.5	0.2	-0.4	-3.3	3.5	10.2	-6.7	-0.5	-6.1
PDP	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MA-PD	—	-3.5	0.2	-0.4	-3.3	3.5	10.2	-6.7	-0.5	-6.1
Non-zero premium	—	-5.1	-3.9	-2.3	1.1	5.1	5.2	-0.1	0.3	-0.4
PDP	—	-3.4	-3.9	-1.6	2.0	3.4	3.0	0.5	0.5	0.0
MA-PD	—	-9.7	-3.6	-4.6	-1.4	9.7	13.9	-4.2	-1.2	-2.9

NOTES:

1. We exclude employer-only plans, PACE plans, and enrollment in Puerto Rico and U.S. Territories.
2. Enrollment figures as of July 1, 2006 and July 1, 2007.

SOURCE: RTI analysis of 2006-2007 Medicare Beneficiary Database.

Table 5-11
Medicare Part D enrollment, by plan deductible, column percentages, 2006-2007

Plan Type	All plans	Basic benefit plans—All basic	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—All enhanced	Enhanced alternative plans—Non-demo	Enhanced alternative plans—All demo	Enhanced alternative plans—Demo flexible capitation	Enhanced alternative plans—Fixed capitation
2007										
Zero	63.6	44.2	—	—	75.2	99.2	98.6	100.0	100.0	100.0
PDP	39.2	37.1	—	—	63.1	43.0	32.6	56.5	57.9	0.0
MA-PD	24.5	7.1	—	—	12.1	56.2	66.0	43.5	42.1	100.0
Reduced	6.0	9.1	—	—	15.4	0.5	0.8	0.0	0.0	0.0
PDP	5.7	8.8	—	—	14.9	0.1	0.1	0.0	0.0	0.0
MA-PD	0.3	0.3	—	—	0.5	0.4	0.7	0.0	0.0	0.0
$265	30.3	46.7	100.0	100.0	9.4	0.3	0.6	0.0	0.0	0.0
PDP	27.8	43.0	89.1	93.6	9.3	0.0	0.0	0.0	0.0	0.0
MA-PD	2.5	3.7	10.9	6.4	0.1	0.3	0.6	0.0	0.0	0.0
2006										
Zero	64.1	48.9	—	—	90.6	98.1	96.0	100.0	100.0	100.0
PDP	41.9	42.4	—	—	78.6	40.7	28.2	51.5	57.1	0.0
MA-PD	22.2	6.5	—	—	12.0	57.5	67.8	48.5	42.9	100.0
Reduced	1.8	1.9	—	—	3.5	1.5	3.2	0.0	0.0	0.0
PDP	1.2	1.2	—	—	2.1	1.4	2.9	0.0	0.0	0.0
MA-PD	0.6	0.7	—	—	1.4	0.1	0.3	0.0	0.0	0.0
$250	34.2	49.2	100.0	100.0	5.9	0.4	0.8	0.0	0.0	0.0
PDP	31.0	44.8	90.2	90.8	5.9	0.0	0.0	0.0	0.0	0.0
MA-PD	3.2	4.4	9.8	9.2	0.1	0.4	0.8	0.0	0.0	0.0

(continued)

Table 5-11 (continued)
Medicare Part D enrollment, by plan deductible, column percentages, 2006-2007

Plan Type	All plans	Basic benefit plans—All basic	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—All enhanced	Enhanced alternative plans—Non-demo	Enhanced alternative plans—All demo	Enhanced alternative plans—Demo flexible capitation	Enhanced alternative plans—Fixed capitation
2006-2007										
Column percentages (change in percentage points)										
Zero	-0.5	-4.7	—	—	-15.4	1.1	2.6	0.0	0.0	0.0
PDP	-2.7	-5.3	—	—	-15.5	2.3	4.4	5.0	0.8	0.0
MA-PD	2.3	0.6	—	—	0.1	-1.3	-1.8	-5.0	-0.8	0.0
Reduced	4.2	7.2	—	—	11.9	-1.0	-2.4	0.0	0.0	0.0
PDP	4.5	7.6	—	—	12.8	-1.3	-2.8	0.0	0.0	0.0
MA-PD	-0.3	-0.4	—	—	-0.9	0.3	0.4	0.0	0.0	0.0
$250/$265	-3.9	-2.5	0.0	0.0	3.5	-0.1	-0.2	0.0	0.0	0.0
PDP	-3.2	-1.8	-1.1	2.8	3.4	0.0	0.0	0.0	0.0	0.0
MA-PD	-0.7	-0.7	1.1	-2.8	0.0	-0.1	-0.2	0.0	0.0	0.0

NOTES:

1. We exclude employer-only plans, PACE plans, and enrollment in Puerto Rico and U.S. Territories.
2. Enrollment figures as of July 1, 2006 and July 1, 2007.

SOURCE: RTI analysis of 2006-2007 Medicare Beneficiary Database.

Offering prescription drug benefits in the coverage gap is a key way in which enhanced plans distinguish their offerings from basic benefit packages. Because all basic benefit packages, including basic alternative plans, must be actuarially equivalent, it is not possible for these options to offer gap coverage. While reinsurance demonstration plans are not required to offer gap coverage (they must only be enhanced plans), it was a strong expectation that many would do so, supported by capitated reinsurance payments. We analyzed differences in enrollment in plans offering different levels of gap coverage and show our results in **Table 5-12.** We found that the majority of enrollees in all enhanced plans, in fact, have no gap coverage in either 2006 or 2007; the proportion of enrollees with gap coverage improves somewhat between 2006 and 2007 however. In 2007, 59.2 percent of all enrollees in enhanced plans had no gap coverage; 33.2 percent were enrolled in plans with gap coverage for generics, and 7.6 percent had gap coverage for both generic and brand name drugs. Non-demonstration plans actually had a lower percentage of enrollees with no gap coverage (57.2 percent) compared to demonstration plan enrollees (61.8 percent). A larger proportion of enrollees in non-demonstration plans (37 percent) have access to generic only coverage compared to demonstration enrollees (28.2 percent). These findings suggest that compared to non-demonstration offerings of enhanced coverage, the reinsurance demonstration does not appear to have resulted in an increase in Part D enrollees with prescription drug coverage in the gap.

5.8 Enrollment and Selection Bias

Among the policy issues addressed by this enrollment analysis is the extent to which demonstration plans are subject to selection bias. Unfavorable, or adverse, selection is a particular problem for health care goods and services for which utilization is highly predictable from year to year, such as prescription drugs (Pauly and Zeng, 2003). Measures of biased selection may be categorized by timing relative to demonstration plan enrollment, and type. Previous studies of biased selection have measured expenditures and health status indicators prior to enrollment, during enrollment, and post-enrollment.

The use of pre- and post-enrollment measures has partly been driven by limited availability of data during enrollment. But these measures also have conceptual advantages and disadvantages. Prior use differences between demonstration enrollees and non-enrollees may overstate selection bias if there is "regression to the mean" in use and expenditures once enrollment occurs (Welch, 1985). Prior use differences for new enrollees may also not be representative of selection among the larger numbers of "continuing enrollees".[27] Indicators measured during the period of enrollment may be confounded by the different utilization patterns, benefit design, cost sharing, and quality of care of demonstration plans versus non-demonstration plans (Robinson and Gardner, 1995). Indicators measured for demonstration plan disenrollees may not be representative of all demonstration plan enrollees (Cox and Hogan, 1997).

[27] This is less of an issue for the Part D payment demonstration since in 2006 all the drug plans were startups.

Table 5-12
Medicare Part D enrollment, by gap coverage, column percentages, 2006-2007

Plan Type	All plans	Basic benefit plans—All basic	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—All enhanced	Enhanced alternative plans—Non-demo	Enhanced alternative plans—All demo	Enhanced alternative plans—Demo flexible capitation	Enhanced alternative plans—Fixed capitation
2007										
None	85.6	—	—	—	—	59.2	57.2	61.8	62.8	21.2
PDP	66.4	—	—	—	—	25.1	17.0	35.7	36.6	0.0
MA-PD	19.2	—	—	—	—	34.1	40.2	26.1	26.2	21.2
Generics only	11.7	—	—	—	—	33.2	37.0	28.2	28.9	0.0
PDP	5.8	—	—	—	—	16.4	14.7	18.7	19.1	0.0
MA-PD	5.9	—	—	—	—	16.8	22.3	9.6	9.8	0.0
Generics and brand name	2.7	—	—	—	—	7.6	5.8	10.0	8.3	78.8
PDP	0.5	—	—	—	—	1.5	1.1	2.1	2.1	0.0
MA-PD	2.2	—	—	—	—	6.1	4.7	7.9	6.1	78.8
2006										
None	88.4	—	—	—	—	62.3	75.1	51.2	54.8	17.7
PDP	69.5	—	—	—	—	27.1	24.8	29.1	32.3	0
MA-PD	18.9	—	—	—	—	35.2	50.2	22.1	22.6	17.7
Generics only	7.7	—	—	—	—	25.1	19.9	29.6	26.7	56
PDP	2.3	—	—	—	—	7.3	6.3	8.3	9.2	0
MA-PD	5.5	—	—	—	—	17.7	13.6	21.3	17.6	56
Generics and brand name	3.9	—	—	—	—	12.6	5	19.2	18.5	26.2
PDP	2.3	—	—	—	—	7.6	0	14.2	15.7	0
MA-PD	1.6	—	—	—	—	5	5	5.1	2.8	26.2

(continued)

Table 5-12 (continued)
Medicare Part D enrollment, by gap coverage, column percentages, 2006-2007

Plan Type	All plans	Basic benefit plans—All basic	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—All enhanced	Enhanced alternative plans—Non-demo	Enhanced alternative plans—All demo	Enhanced alternative plans—Demo flexible capitation	Enhanced alternative plans—Fixed capitation
2006-2007										
Column percentages (change in percentage points)										
None	-2.8	—	—	—	—	-3.1	-17.9	10.6	8.0	3.5
PDP	-3.1	—	—	—	—	-2.0	-7.8	6.6	4.3	0.0
MA-PD	0.3	—	—	—	—	-1.1	-10.0	4.0	3.6	3.5
Generics only	4.0	—	—	—	—	8.1	17.1	-1.4	2.2	-56.0
PDP	3.5	—	—	—	—	9.1	8.4	10.4	9.9	0.0
MA-PD	0.4	—	—	—	—	-0.9	8.7	-11.7	-7.8	-56.0
Generics and brand name	-1.2	—	—	—	—	-5.0	0.8	-9.2	-10.2	52.6
PDP	-1.8	—	—	—	—	-6.1	1.1	-12.1	-13.6	0.0
MA-PD	0.6	—	—	—	—	1.1	-0.3	2.8	3.3	52.6

NOTES:

1. We exclude employer-only plans, PACE plans, and enrollment in Puerto Rico and U.S. Territories.
2. Enrollment figures as of July 1, 2006 and July 1, 2007.

SOURCE: RTI analysis of 2006-2007 Medicare Beneficiary Database.

In this enrollment analysis, we use 2006 Rx-HCC prospective risk scores to measure selection bias.[28]

5.8.1 Part D Mean Risk Scores Overall and by Plan Type

Table 5-13 lists 2006 Part D mean risk scores for beneficiaries enrolled in Part D and beneficiaries not enrolled in Part D. The mean risk score for Part D beneficiaries is 1.05, compared to 0.95 for non-Part D beneficiaries. This means that drug costs for beneficiaries enrolled in Part D are predicted to be 5 percent higher than the average Medicare beneficiary, whereas drug costs for non-Part D beneficiaries are predicted to be 5 percent lower than the average Medicare beneficiary.[29] This result suggests there is an adverse selection into the Part D program.[30] We would like to caveat this result however by noting that dual eligible Medicare/Medicaid beneficiaries are generally auto-enrolled into Part D, and given dual eligibles are sicker than average, this could be skewing the results. In Section 4.2 we examine the mean risk scores by beneficiary characteristics, including by dual eligibility status.

Interestingly, the mean risk score for PDP plan enrollees is 1.08, compared to only 0.96 for MA-PD plan enrollees. Therefore within the Part D program, there appears to be a favorable selection for MA-PD plans.

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28 We expected to take account of plan benefit structure in our biased selection analysis, but were not able to do this because of data limitations. In particular, risk scores were only available for 2006 whereas the plan generosity index was only available for 2007.

29 Note that predicted prescription drug expenditures for the average Medicare beneficiary are not greater than average nor less than average. Hence the risk score for the average beneficiary is 1.00, which is equal to the mean risk score for the Medicare population.

30 Because Part D plan payments are risk adjusted, payments will be accurate despite selection bias. The measure of selection bias is the risk score itself. Plans are being "selected against" because people of higher than average risk scores are enrolling. However, that very measure is being used to compensate the plans for the higher morbidity patients being enrolled. The actual accuracy of payments depends on the bids of the plans as well as risk adjustment.

Table 5-13
Medicare Part D mean risk score, by plan type, 2006

Plan Type	All plans	Basic benefit plans—All basic	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—All enhanced	Enhanced alternative plans—Non-demo	Enhanced alternative plans—All demo	Enhanced alternative plans—Demo flexible capitation	Enhanced alternative plans—Fixed capitation	Non-Part D	Medicare population (Part D + Non-Part D)
Observations												
Overall	1.05	1.08	1.06	1.11	1.07	0.99	0.98	0.99	1.00	0.92	0.95	1.00
PDP	1.08	1.09	1.06	1.13	1.09	1.04	1.04	1.04	1.04	—	—	—
MA-PD	0.96	0.98	1.06	0.97	0.96	0.95	0.96	0.94	0.95	0.92	—	—

NOTES:

1. 2006 Medicare Part D prospective risk scores based on 2005 all-encounter diagnoses.

2. We exclude employer-only plans, PACE plans, and enrollment in Puerto Rico and U.S. Territories.

3. Enrollment as of July 1, 2006.

4. Mean risk score for Medicare population normalized to 1.00.

SOURCE: RTI analysis of 2006 Medicare Rx Risk Score File.

Interestingly, among basic plans, the mean risk score for actuarially equivalent plans is highest at 1.11, and is similar for defined standard and basic alternative plans (1.06 versus 1.07). This implies that beneficiaries enrolling in actuarially equivalent plans are predicted to be roughly 5 percent more costly than beneficiaries enrolling in the other basic benefit plan variants. However, this pattern does not hold for MA-PD basic plans. Among MA-PD basic plans, defined standard plans have the highest mean risk score of 1.11, and the mean risk score is similar for actuarially equivalent and basic alternative plans (0.97 versus 0.96). Among enhanced plans, the mean risk scores are broadly similar for demonstration versus non-demonstration plans (0.99 versus 0.98), and this pattern holds for both enhanced PDP plans and for enhanced MA-PD plans. For basic and enhanced plans, the mean risk scores for PDP versus MA-PD plans follow a similar pattern as for the Part D program as a whole, with the mean risk score for PDP plans substantially higher than for MA-PD plans. For basic plans, the mean risk score for PDP plans is 1.09, compared to only 0.98 for MA-PD plans. For enhanced plans, the mean risk score for PDP plans is 1.04, compared to only 0.95 for MA-PD plans.

Table 5-14 presents the distribution of Part D risk scores. For beneficiaries enrolled in Part D, the median risk score is 1.00, and the 95th percentile is 1.79. Therefore half of Part D enrollees have predicted drug costs higher than the average Medicare beneficiary, and five percent of Part D enrollees have predicted drug costs at least 79 percent higher than the average Medicare beneficiary. This can be compared to beneficiaries not enrolled in Part D, where the median is 0.91 and the 95th percentile is 1.61. More importantly for the evaluation of the demonstration, the median and 95th percentile risk scores for basic plans are 1.03 and 1.85, compared with 0.94 and 1.64 for enhanced plans (with demonstration and non-demonstration enhanced plans having similar risk score distributions).

Tables 5-15 and **5-16** show the Part D risk score distribution separately for PDP plans and MA-PD plans. For PDP basic plans, the median and 95th percentile risk scores are 1.04 and 1.87, and for PDP enhanced plans they are 0.99 and 1.70 (Table 5-15). For MA-PD basic plans, the median and 95th percentile risk scores are 0.93 and 1.68, and for MA-PD enhanced plans they are 0.91 and 1.59 (Table 5-16).

Table 5-14
Medicare Part D risk score distribution, 2006

Variable	All plans	Basic benefit plans—All basic	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—All enhanced	Enhanced alternative plans—Non-demo	Enhanced alternative plans—All demo	Enhanced alternative plans—Demo flexible capitation	Enhanced alternative plans—Fixed capitation	Non-Part D	Medicare population (Part D + Non-Part D)
Mean	1.05	1.08	1.06	1.11	1.07	0.99	0.98	0.99	1.00	0.92	0.95	1.00
Standard error	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Percentiles												
100% max	6.07	6.07	6.07	5.64	5.82	5.32	5.32	5.16	5.16	4.94	5.40	6.07
99%	2.31	2.42	2.46	2.51	2.36	2.03	2.01	2.05	2.06	1.96	1.98	2.16
95%	1.79	1.85	1.86	1.91	1.82	1.64	1.63	1.66	1.67	1.56	1.61	1.71
90%	1.58	1.63	1.63	1.69	1.61	1.47	1.45	1.48	1.49	1.39	1.44	1.51
75% Q3	1.27	1.31	1.29	1.35	1.30	1.21	1.20	1.22	1.22	1.13	1.18	1.23
50% median	1.00	1.03	1.00	1.07	1.02	0.94	0.94	0.95	0.96	0.89	0.91	0.95
25%	0.76	0.78	0.74	0.80	0.78	0.74	0.74	0.74	0.74	0.66	0.69	0.74
10%	0.53	0.55	0.52	0.56	0.56	0.52	0.52	0.52	0.53	0.45	0.45	0.49
5%	0.44	0.44	0.43	0.44	0.45	0.43	0.43	0.43	0.43	0.39	0.38	0.41
1%	0.35	0.35	0.35	0.35	0.35	0.35	0.34	0.35	0.35	0.34	0.34	0.34
0% min	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26

NOTES:

1. 2006 Medicare Part D prospective risk scores based on 2005 all-encounter diagnoses.

2. We exclude employer-only plans, PACE plans, and enrollment in Puerto Rico and U.S. Territories.

3. Enrollment as of July 1, 2006.

4. Mean risk score for Medicare population normalized to 1.00.

SOURCE: RTI analysis of 2006 Medicare Rx Risk Score File.

Table 5-15
PDP plans' Medicare Part D risk score distribution, 2006

Variable	All plans	Basic benefit plans—All basic	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—All enhanced	Enhanced alternative plans—Non-demo	Enhanced alternative plans—All demo	Enhanced alternative plans—Demo flexible capitation	Enhanced alternative plans—Fixed capitation
Mean	1.08	1.09	1.06	1.13	1.09	1.04	1.04	1.04	1.04	—
Standard Error	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—
Percentiles										
100% Max	6.07	6.07	6.07	5.64	5.82	5.16	5.11	5.16	5.16	—
99%	2.39	2.44	2.45	2.54	2.40	2.10	2.07	2.11	2.11	—
95%	1.84	1.87	1.86	1.93	1.85	1.70	1.69	1.71	1.71	—
90%	1.62	1.65	1.63	1.71	1.63	1.52	1.51	1.53	1.53	—
75% Q3	1.31	1.32	1.29	1.37	1.31	1.26	1.25	1.27	1.27	—
50% Median	1.03	1.04	1.00	1.09	1.04	0.99	0.99	0.99	0.99	—
25%	0.79	0.79	0.74	0.82	0.80	0.78	0.79	0.77	0.77	—
10%	0.57	0.56	0.52	0.57	0.58	0.59	0.61	0.58	0.58	—
5%	0.45	0.44	0.43	0.45	0.45	0.47	0.49	0.46	0.46	—
1%	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	—
0% Min	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	—

NOTES:

1. 2006 Medicare Part D prospective risk scores based on 2005 all-encounter diagnoses.

2. We exclude employer-only plans, PACE plans, and enrollment in Puerto Rico and U.S. Territories.

3. Enrollment as of July 1, 2006.

4. Mean risk score for Medicare population normalized to 1.00.

SOURCE: RTI analysis of 2006 Medicare Rx Risk Score File.

Table 5-16
MA-PD plans' Medicare Part D risk score distribution, 2006

Variable	All plans	Basic benefit plans—All basic	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—All enhanced	Enhanced alternative plans—Non-demo	Enhanced alternative plans—All demo	Enhanced alternative plans—Demo flexible capitation	Enhanced alternative plans—Fixed capitation
Mean	0.96	0.98	1.06	0.97	0.96	0.95	0.96	0.94	0.95	0.92
Standard Error	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Percentiles										
100% Max	5.32	5.28	5.28	4.44	5.09	5.32	5.32	4.94	4.94	4.94
99%	2.02	2.14	2.54	1.99	2.04	1.97	1.97	1.97	1.97	1.96
95%	1.62	1.68	1.85	1.60	1.63	1.59	1.60	1.59	1.60	1.56
90%	1.44	1.48	1.62	1.43	1.45	1.42	1.43	1.41	1.42	1.39
75% Q3	1.18	1.21	1.30	1.18	1.18	1.17	1.18	1.16	1.17	1.13
50% Median	0.92	0.93	1.01	0.93	0.91	0.91	0.92	0.90	0.91	0.89
25%	0.72	0.72	0.75	0.73	0.71	0.71	0.72	0.70	0.71	0.66
10%	0.48	0.49	0.52	0.51	0.48	0.47	0.48	0.45	0.46	0.45
5%	0.41	0.42	0.43	0.43	0.41	0.41	0.41	0.40	0.41	0.39
1%	0.34	0.34	0.35	0.35	0.34	0.34	0.34	0.34	0.34	0.34
0% Min	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26

NOTES:

1. 2006 Medicare Part D prospective risk scores based on 2005 all-encounter diagnoses.

2. We exclude employer-only plans, PACE plans, and enrollment in Puerto Rico and U.S. Territories.

3. Enrollment as of July 1, 2006.

4. Mean risk score for Medicare population normalized to 1.00.

SOURCE: RTI analysis of 2006 Medicare Rx Risk Score File.

5.8.2 Part D Risk Scores by Beneficiary Characteristics

Table 5-17 shows mean risk score results by beneficiary characteristics. For the Medicare population, beneficiaries entitled to Medicare by disability (age 0-64) have higher predicted drug costs than beneficiaries entitled to Medicare by age (age 65+). The mean risk score for beneficiaries age 0-64 is 1.14, meaning that drug costs for these beneficiaries are predicted to be 14 percent higher than the average beneficiary. This may have to do with the health status of non-elderly disabled Medicare beneficiaries, many of whom have mental disorders that require expensive psychiatric drugs. The age group with the lowest predicted drug costs are the young elderly (age 65-74), with a mean risk score of 0.92. Beneficiaries in age group 75-84 and age group 85+ have similar predicted drug costs. With a mean risk score of 1.06, females have higher predicted drug costs than males (mean risk score 0.93). Dual Medicare/Medicaid eligibles have predicted drug costs 15 percent higher than the average beneficiary, whereas non-duals have predicted drug costs that are 3 percent lower than average. The patterns of predicted costs by beneficiary subpopulation are similar for the Part D population as for the Medicare population. For the Part D population, beneficiaries eligible by disability, females, and dual eligibles have the highest predicted drug costs.

Given dually eligible Medicare/Medicaid beneficiaries are generally auto-enrolled into Part D basic plans, and that these beneficiaries have relatively high predicted drug costs, including dual eligibles in our selection bias analysis could be skewing the results. To account for this, we examine risk score distributions for non-dual eligibles. **Table 5-18** shows the risk score distribution for non-dual eligibles. As expected, non-dual eligibles have lower predicted drug costs than the average Medicare beneficiary (risk score = 0.97). The mean risk score for non-duals enrolled in the Part D program is 1.00, compared to 0.95 for non-duals not enrolled in Part D. In other words, among non-duals, Part D enrollee drug costs are predicted to be 5 percent higher than for beneficiaries not enrolled in Part D. Thus even among non-duals, there appears to be some adverse selection into the Part D program, although to a lesser degree than for the Medicare population as a whole (duals + non-duals).

Table 5-17
Medicare Part D mean risk scores, by beneficiary characteristics, 2006

Variable	All plans	Basic benefit plans—All basic	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—All enhanced	Enhanced alternative plans—Non-demo	Enhanced alternative plans—All demo	Enhanced alternative plans—Demo flexible capitation	Enhanced alternative plans—Fixed capitation	Non-Part D	Medicare population (Part D + Non-Part D)
Age 0-64	1.19	1.20	1.20	1.20	1.20	1.17	1.17	1.18	1.18	1.13	1.03	1.14
PDP	1.20	1.20	1.20	1.20	1.20	1.21	1.23	1.21	1.21	—	—	—
MA-PD	1.16	1.18	1.19	1.18	1.16	1.14	1.15	1.14	1.14	1.13	—	—
Age 65-74	0.96	0.98	0.96	1.03	0.98	0.93	0.93	0.92	0.93	0.86	0.89	0.92
PDP	0.99	1.00	0.95	1.05	1.00	0.96	0.97	0.96	0.96	—	—	—
MA-PD	0.90	0.91	0.99	0.91	0.89	0.90	0.91	0.88	0.89	0.86	—	—
Age 75-84	1.05	1.08	1.05	1.11	1.08	1.01	1.00	1.02	1.02	0.94	0.99	1.02
PDP	1.09	1.09	1.05	1.13	1.10	1.08	1.08	1.08	1.08	—	—	—
MA-PD	0.97	0.98	1.04	0.98	0.97	0.96	0.97	0.95	0.96	0.94	—	—
Age 85+	1.06	1.08	1.05	1.08	1.09	1.01	1.00	1.02	1.03	0.95	0.98	1.02
PDP	1.09	1.09	1.06	1.09	1.10	1.08	1.08	1.08	1.08	—	—	—
MA-PD	0.97	1.00	1.02	0.97	1.01	0.96	0.96	0.95	0.95	0.95	—	—
Male	0.98	1.00	0.98	1.03	1.00	0.92	0.92	0.93	0.94	0.86	0.88	0.93
PDP	1.01	1.01	0.98	1.05	1.02	0.98	0.98	0.98	0.98	—	—	—
MA-PD	0.89	0.91	0.99	0.90	0.89	0.88	0.89	0.88	0.88	0.86	—	—
Female	1.09	1.12	1.11	1.16	1.11	1.03	1.03	1.04	1.05	0.96	1.01	1.06
PDP	1.12	1.13	1.11	1.17	1.13	1.08	1.08	1.08	1.08	—	—	—
MA-PD	1.01	1.03	1.11	1.01	1.00	1.00	1.01	0.99	1.00	0.96	—	—
Medicaid	1.16	1.16	1.16	1.16	1.16	1.10	1.10	1.11	1.12	1.04	1.05	1.15
PDP	1.16	1.16	1.17	1.16	1.16	1.23	1.24	1.22	1.22	—	—	—
MA-PD	1.09	1.12	1.10	1.12	1.14	1.07	1.07	1.07	1.08	1.04	—	—
Non-Medicaid	1.00	1.01	0.97	1.05	1.02	0.98	0.97	0.98	0.99	0.90	0.95	0.97
PDP	1.03	1.02	0.97	1.07	1.04	1.03	1.03	1.03	1.03	—	—	—
MA-PD	0.94	0.94	0.97	0.95	0.93	0.94	0.94	0.93	0.94	0.90	—	—

NOTES:

1. 2006 Medicare Part D prospective risk scores based on 2005 all-encounter diagnoses.
2. We exclude employer-only plans, PACE plans, and enrollment in Puerto Rico and U.S. Territories.
3. Enrollment as of July 1, 2006.
4. Mean risk score for Medicare population normalized to 1.00.

SOURCE: RTI analysis of 2006 Medicare Rx Risk Score File.

Table 5-18
Medicare Part D risk score distribution, non-Medicaid, 2006

Variable	All plans	Basic benefit plans—All basic	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—All enhanced	Enhanced alternative plans—Non-demo	Enhanced alternative plans—All demo	Enhanced alternative plans—Demo flexible capitation	Enhanced alternative plans—Fixed capitation	Non-Part D	Medicare population (Part D + Non-Part D)
Mean	1.00	1.01	0.97	1.05	1.02	0.98	0.97	0.98	0.99	0.90	0.95	0.97
Standard error	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Percentiles												
100% max	5.60	5.60	5.53	5.60	5.41	4.98	4.83	4.98	4.98	4.74	5.40	5.60
99%	2.06	2.11	2.09	2.22	2.09	1.99	1.96	2.02	2.03	1.89	1.98	2.02
95%	1.66	1.69	1.65	1.76	1.69	1.62	1.60	1.64	1.65	1.53	1.61	1.63
90%	1.48	1.50	1.45	1.56	1.50	1.45	1.43	1.46	1.47	1.36	1.44	1.45
75% Q3	1.22	1.23	1.18	1.27	1.24	1.20	1.19	1.21	1.21	1.11	1.18	1.19
50% Median	0.95	0.97	0.92	1.01	0.98	0.94	0.93	0.94	0.95	0.89	0.91	0.93
25%	0.74	0.74	0.72	0.77	0.76	0.74	0.74	0.74	0.74	0.65	0.69	0.72
10%	0.53	0.53	0.49	0.55	0.56	0.51	0.51	0.51	0.53	0.44	0.45	0.47
5%	0.43	0.44	0.42	0.44	0.44	0.43	0.43	0.43	0.43	0.39	0.38	0.41
1%	0.35	0.35	0.35	0.35	0.35	0.35	0.34	0.35	0.35	0.34	0.34	0.34
0% min	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26

NOTES:

1. 2006 Medicare Part D prospective risk scores based on 2005 all-encounter diagnoses.

2. We exclude employer-only plans, PACE plans, and enrollment in Puerto Rico and U.S. Territories.

3. Enrollment as of July 1, 2006.

4. Mean risk score for Medicare population normalized to 1.00.

SOURCE: RTI analysis of 2006 Medicare Rx Risk Score File.

For non-dual eligibles enrolled in Part D, the mean risk score for basic plans is higher than for enhanced plans (1.01 versus 0.98).[31] Thus, even among non-duals, enhanced plans appear to be experiencing some favorable selection relative to basic plans. However, this last result might be an artifact of the distributions of basic and enhanced enrollment. For basic plans, PDP plans comprise the vast majority of enrollment (89 percent—Table 5-3), whereas for enhanced plans, MA-PD plans comprise the majority of enrollment (57 percent—Table 5-3).[32] Given the favorable selection for MA-PDs, it is not too surprising that the mean risk score for enhanced plans is lower than for basic plans. To account for this, **Tables 5-19** and **5-20** show the non-dual Part D risk score distributions separately for PDP plans and MA-PD plans. The mean risk scores for non-duals enrolled in PDP basic and enhanced plans are broadly similar (1.02 versus 1.03—Table 5-19). Therefore, for non-duals enrolled in PDP plans, there does not appear to be selection bias for enhanced plans relative to basic plans. Similar results apply to MA-PDs. The mean risk scores for MA-PD basic and enhanced plans are identical at 0.94 (Table 5-20). Thus for non-duals enrolled in MA-PD plans, enhanced plans do not seem to be experiencing a selection bias relative to basic plans. We find these results counterintuitive given the hypothesis that chronic users of prescription drugs will be more likely to enroll in enhanced plans. Further, these results are inconsistent with our site visit findings, in which demonstration plans claimed to have experienced adverse selection. Possibly enhanced plans are not a better deal for beneficiaries in poorer health because they "pay for" enhanced benefits with higher premiums.

5.9 Factors Determining Part D Enrollment

Using a multivariate framework we examined the factors determining Part D enrollment. We used a 5 percent sample of beneficiaries enrolled in Medicare Part D in July 2006 to estimate a logistic regression model of beneficiary choice between basic and enhanced coverage. Because the vast majority of dual Medicare/Medicaid beneficiaries are automatically enrolled in basic plans, conceptually it is not appropriate to include these beneficiaries in an enrollment choice model. Further, because the process of MA enrollees' choice of Part D plans may be different from the choice process of FFS beneficiaries (MA enrollees must choose among those Part D plans offered by their MA plan[33]), we excluded MA beneficiaries from the analysis as well. We also used the multivariate framework to examine the factors determining enrollment in demonstration versus non-demonstration plans, and in Part D versus Non-Part D.

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[31] For non-duals, mean risk scores for demonstration and non-demonstration plans are broadly similar, both overall and for PDP and MA-PD plans.

[32] For demonstration enhanced plans, MA-PDs comprise less than a majority of enrollment.

[33] If a PFFS does not offer a Part D plan, then beneficiaries enrolled in that PFFS may enroll in any standalone PDP serving the beneficiary's area.

Table 5-19
PDP plans' Medicare Part D risk score distribution, non-Medicaid, 2006

Variable	All plans	Basic benefit plans—All basic	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—All enhanced	Enhanced alternative plans—Non-demo	Enhanced alternative plans—All demo	Enhanced alternative plans—Demo flexible capitation	Enhanced alternative plans—Fixed capitation
Mean	1.03	1.02	0.97	1.07	1.04	1.03	1.03	1.03	1.03	—
Standard Error	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—
Percentiles										
100% Max	5.60	5.60	5.53	5.60	5.41	4.98	4.61	4.98	4.98	—
99%	2.11	2.13	2.09	2.28	2.11	2.07	2.03	2.08	2.08	—
95%	1.70	1.71	1.65	1.80	1.71	1.69	1.66	1.70	1.70	—
90%	1.51	1.52	1.45	1.59	1.52	1.51	1.49	1.52	1.52	—
75% Q3	1.25	1.25	1.18	1.29	1.26	1.25	1.24	1.26	1.26	—
50% Median	0.98	0.98	0.92	1.04	1.00	0.99	0.99	0.99	0.99	—
25%	0.76	0.76	0.72	0.79	0.78	0.77	0.79	0.77	0.77	—
10%	0.56	0.55	0.49	0.56	0.58	0.59	0.61	0.58	0.58	—
5%	0.45	0.44	0.43	0.44	0.45	0.47	0.49	0.45	0.45	—
1%	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	—
0% Min	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	—

NOTES:

1. 2006 Medicare Part D prospective risk scores based on 2005 all-encounter diagnoses.

2. We exclude employer-only plans, PACE plans, and enrollment in Puerto Rico and U.S. Territories.

3. Enrollment as of July 1, 2006.

4. Mean risk score for Medicare population normalized to 1.00.

SOURCE: RTI analysis of 2006 Medicare Rx Risk Score File.

Table 5-20
MA-PD plans' Medicare Part D risk score distribution, non-Medicaid, 2006

Variable	All plans	Basic benefit plans—All basic	Basic benefit plans—Defined standard	Basic benefit plans—Actuarially equivalent	Basic benefit plans—Basic alternative	Enhanced alternative plans—All enhanced	Enhanced alternative plans—Non-demo	Enhanced alternative plans—All demo	Enhanced alternative plans—Demo flexible capitation	Enhanced alternative plans—Fixed capitation
Mean	0.94	0.94	0.97	0.95	0.93	0.94	0.94	0.93	0.94	0.90
Standard Error	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Percentiles										
100% Max	5.09	5.09	4.99	4.25	5.09	4.83	4.83	4.74	4.61	4.74
99%	1.92	1.94	2.14	1.90	1.92	1.92	1.91	1.92	1.92	1.89
95%	1.56	1.57	1.67	1.55	1.56	1.56	1.56	1.56	1.57	1.53
90%	1.39	1.39	1.47	1.39	1.39	1.39	1.40	1.39	1.39	1.36
75% Q3	1.15	1.15	1.19	1.15	1.14	1.15	1.16	1.14	1.15	1.11
50% Median	0.90	0.90	0.92	0.91	0.89	0.90	0.91	0.89	0.89	0.89
25%	0.70	0.70	0.71	0.72	0.69	0.70	0.71	0.69	0.70	0.65
10%	0.47	0.47	0.48	0.50	0.46	0.46	0.48	0.45	0.45	0.44
5%	0.41	0.41	0.42	0.43	0.41	0.41	0.41	0.40	0.40	0.39
1%	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34
0% Min	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26

NOTES:

1. 2006 Medicare Part D prospective risk scores based on 2005 all-encounter diagnoses.

2. We exclude employer-only plans, PACE plans, and enrollment in Puerto Rico and U.S. Territories.

3. Enrollment as of July 1, 2006.

4. Mean risk score for Medicare population normalized to 1.00.

SOURCE: RTI analysis of 2006 Medicare Rx Risk Score File.

5.9.1 Basic Versus Enhanced

Table 5-21 presents the logistic regression model results for factors determining enrollment in basic versus enhanced coverage. The dependent variable in the model is a binary variable equal to 1 if the beneficiary was enrolled in an enhanced plan in July 2006, and equal to 0 if the beneficiary was enrolled in a basic plan. The explanatory variables include beneficiary demographic and health status characteristics, and for the beneficiaries' area of residence, geographic and plan characteristics.[34] Categorical variables include age (reference group age 65-74), sex (reference group male), census region (reference group Northeast), and urbanicity (reference group large urban). Continuous variables include the Rx Risk Score, income per capita, percentage of workforce government, percentage of workforce manufacturing, percentage of adults with high school education, number of Medicare FFS beneficiaries, population density, average (un-weighted) plan premium, and finally number of plans. The table provides point estimates for odds ratios, along with the corresponding p-values. Odds ratios are interpreted differently for categorical and continuous variables. For categorical variables, odds ratios are interpreted relative to the reference group. For continuous variables, odds ratios are interpreted relative to a 1 unit change in the continuous variable (UCLA, 2008).

Similar to what we found in the descriptive analysis (see Sections 3 and 4), compared to the reference group of young elderly beneficiaries age 65-74, beneficiaries eligible by disability, and older elderly beneficiaries, have a lower odds of enrolling in enhanced coverage. Females also have a lower odds of enrolling in enhanced coverage compared to males (odds ratio = 0.95). Beneficiaries residing in the Midwest, South, and West census regions, and also beneficiaries in more rural areas, have higher odds of enrolling in enhanced coverage. Sicker beneficiaries tend to enroll in enhanced plans more than basic plans (odds ratio = 1.29), meaning that if the risk score is increased by 1.00, the odds of enrolling in an enhanced plan increases by 29 percent.

Note however that although we found several statistically significant results, it is important to consider population averages as well as incremental effects holding other variables constant (which is what the regression coefficients show). For example, although we found a statistically significant result that sicker Part D enrollees have a higher odds of enrolling in enhanced coverage, we also found that the mean risk score for enhanced plan enrollees was broadly similar to basic plan enrollees (1.03 versus 1.02—Table 4-7).[35] Our multivariate finding on risk score makes some intuitive sense as beneficiaries with greater health care needs are more likely to need more extensive drug coverage, and hence more likely to choose a richer benefit package. However, while we do find evidence that sicker beneficiaries are more likely to enroll in enhanced plans, the substantive differences are small and arguably not large enough to be considered evidence of selection bias.

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[34] As previously discussed, in addition to plan premium, we would have ideally included a measure of plan generosity. However, due to data limitations, this was not possible.

[35] One caveat to this result is that because of data limitations we used dual eligibility as a proxy for LIS status, and this proxy will underestimate the number of beneficiaries with LIS status, which could be biasing upward the mean risk score for basic plans.

Table 5-21
Logistic regression of enrollment in basic versus enhanced

Variable	Odds ratio	P-value
Age		
0-64	0.60	<0.01
75-84	0.87	<0.01
85+	0.79	<0.01
Sex		
Female	0.95	<0.01
Census region		
Midwest	1.80	<0.01
South	1.77	<0.01
West	1.93	<0.01
Urbanicity		
Medium urban	1.08	—
Small urban	1.17	<0.01
Rural—Urban adjacent	1.09	<0.05
Rural—Non adjacent	1.23	<0.01
Risk score	1.29	<0.01
Income per capita	1.00	
% Workforce government	0.34	<0.01
% Workforce manufacturing	1.69	<0.01
% Adults with high school education	1.00	—
# of Medicare FFS beneficiaries	0.97	—
Population density	0.98	<0.01
Plan premium—Basic plans	1.07	<0.01
Plan premium—Enhanced plans	0.96	<0.01
# Basic plans	1.01	—
# Enhanced plans	1.06	<0.01

NOTES:

1. Dependent variable equals 1 if enrolled in an enhanced plan, and 0 if enrolled in a basic plan.

2. Analytic sample is 5% sample of FFS, Non-Medicaid, Non-Institutional beneficiaries enrolled in Medicare Part D in July 2006.

3. We exclude employer-only plans, PACE plans, and enrollment in Puerto Rico and U.S. Territories.

SOURCE: RTI analysis of 2006 Medicare Beneficiary Database.

The logistic regression results show that the higher the average enhanced plan premium in a beneficiary's area, the lower the odds of enrolling in an enhanced plan. Likewise, the results show that the higher the average basic plan premium in a beneficiary's area, the higher the odds of enrolling in an enhanced plan. These plan premium results are consistent with standard economic theory suggesting that consumers are price sensitive to monthly premiums and make their enrollment decisions in part based on these relative prices. These findings are also consistent with the results of focus groups conducted earlier in this project (Greenwald, et al, 2007). In these focus groups, we found beneficiaries did not always grasp many of the details of the Part D program or their particular plan. However, beneficiaries were able to accurately report their monthly premium, and were quite aware of the costs of competing options.

Finally, measures of plan access suggest that beneficiaries with greater access to enhanced coverage are more likely to enroll in enhanced coverage. This seems to suggest that the more enhanced plan choices a beneficiary has, the more apt the beneficiary will be to choose enhanced coverage.[36]

5.9.2 Demonstration versus Non-Demonstration

Table 5-22 presents the logistic regression model results for factors determining enrollment in demonstration versus non-demonstration enhanced coverage. The dependent variable in the model is a binary variable equal to 1 if the beneficiary was enrolled in a demonstration enhanced plan in July 2006, and equal to 0 if the beneficiary was enrolled in a non-demonstration enhanced plan. In other words, we have attempted to model factors influencing the plan choice behavior for beneficiaries who chose among the various enhanced plan products.

Again, similar to what we found in the descriptive analysis, compared to the reference group of young elderly beneficiaries age 65-74, beneficiaries eligible by disability, and older elderly beneficiaries, have a higher odds of enrolling in demonstration enhanced coverage. Females also have a lower odds of enrolling in demonstration enhanced coverage compared to males (odds ratio = 0.96). Beneficiaries residing in the Midwest, South, and West census regions, and also beneficiaries in more rural areas, have higher odds of enrolling in demonstration enhanced coverage. Interestingly, beneficiaries in areas with higher income have higher odds of enrolling in enhanced plans (demand for supplemental coverage partly depends on income). Sicker beneficiaries tend to enroll in demonstration enhanced plans more than non-demonstration enhanced plans (odds ratio = 1.11). This may indicate the desire among this group for benefits which we found in an earlier report (Greenwald, et al., 2008) are possibly more generous for beneficiaries who rate themselves as in the poorest health. However, again it is important to consider population averages as well as incremental effects holding other factors constant, and as we showed previously, the mean risk score for demonstration versus non-demonstration enhanced enrollees were broadly similar (Table 4-7).

[36] This result assumes that the supply of enhanced plans is exogenous in the logistic regression model.

Table 5-22
Logistic regression of enrollment in demo enhanced versus non-demo enhanced

Variable	Odds ratio	P-value
Age		
0-64	1.46	<0.01
75-84	1.02	
85+	1.07	<0.01
Sex		
Female	0.96	<0.01
Census region		
Midwest	1.44	<0.01
South	1.30	<0.05
West	1.82	<0.01
Urbanicity		
Medium urban	1.01	—
Small urban	1.31	<0.01
Rural—Urban adjacent	1.27	<0.01
Rural—Non adjacent	1.50	<0.01
Risk score	1.11	<0.01
Income per capita	1.01	<0.05
% Workforce government	0.28	<0.05
% Workforce manufacturing	0.10	<0.01
% Adults with high school education	0.99	<0.01
# of Medicare FFS beneficiaries	0.93	<0.05
Population density	1.01	—
Plan premium—Demo plans	0.92	<0.01
Plan premium—Non-demo plans	1.05	<0.01
# Demo plans	1.23	<0.01
# Non-demo plans	0.83	<0.01

NOTES:

1. Dependent variable equals 1 if enrolled in a demo enhanced plan, and 0 if enrolled in a non-demo enhanced plan.

2. Analytic sample is 5% sample of FFS, Non-Medicaid, Non-Institutional beneficiaries enrolled in Medicare Part D Enhanced in July 2006.

3. We exclude employer-only plans, PACE plans, and enrollment in Puerto Rico and U.S. Territories.

SOURCE: RTI analysis of 2006 Medicare Beneficiary Database.

The logistic regression results show that the higher the average demonstration enhanced plan premium in a beneficiary's area, the lower the odds of enrolling in a demonstration enhanced plan. This underscores earlier findings that beneficiaries are price sensitive to monthly premium, and tend to use this as a critical point of comparison on making a Part D plan choice. However, the results of this regression analysis also suggest that the availability of demonstration plans also affects odds of enrolling. The logistic regression model shows that beneficiaries with greater access to demonstration enhanced plans are more apt to enroll in a demonstration enhanced plan.

5.9.3 Part D versus Non-Part D

Table 5-23 presents the logistic regression model results for factors determining enrollment in Part D versus Non-Part D. The dependent variable in the model is a binary variable equal to 1 if the beneficiary was enrolled in Part D in July 2006, and equal to 0 if the beneficiary was not enrolled in Part D. Because we do not have premium and access information for alternatives to Part D, we do not include variables for Part D plan premium and access.

The results are generally consistent with the descriptive results presented in Sections 3 and 4. Beneficiaries having a higher odds of enrolling in Part D include sicker beneficiaries, younger beneficiaries eligible by disability (age 0-64), older beneficiaries (age 85+), beneficiaries in the Midwest, South, and West census regions, and beneficiaries in more rural areas.

Interestingly, beneficiaries in areas with a higher percentage of government and manufacturing workers have a lower odds of enrolling in Part D. This result makes sense conceptually, because beneficiaries in these areas will be more likely to have retiree drug coverage.

Table 5-23
Logistic regression of enrollment in Part D versus non-Part D

Variable	Odds ratio	P-value
Age		
0-64	1.18	<0.01
75-84	0.92	<0.01
85+	1.02	<0.05
Sex		
Female	1.47	<0.01
Census region		
Midwest	1.49	<0.01
South	1.23	<0.01
West	1.19	<0.01
Urbanicity		
Medium urban	1.00	—
Small urban	1.26	<0.01
Rural—Urban adjacent	1.41	<0.01
Rural—Non adjacent	1.82	<0.01
Risk score	1.56	<0.01
Income per capita	1.01	<0.01
% Workforce government	0.15	<0.01
% Workforce manufacturing	0.64	<0.05
% Adults with high school education	0.98	<0.01
# of Medicare FFS beneficiaries	0.97	—
Population density	1.00	—

NOTES:

1. Dependent variable equals 1 if enrolled in Part D, and 0 if not enrolled in Part D.

2. Analytic sample is 5% sample of FFS, Non-Medicaid, Non-Institutional beneficiaries enrolled in Medicare in July 2006.

3. We exclude employer-only plans, PACE plans, and enrollment in Puerto Rico and U.S. Territories.

SOURCE: RTI analysis of 2006 Medicare Beneficiary Database.

SECTION 6
COST AND UTILIZATION

As part of our analyses for the Part D Payment Demonstration Evaluation, we conducted an analysis of Part D expenditure and utilization in demonstration versus non-demonstration plans. We compared beneficiary response to the different plan options by evaluating expenditures and utilization by the range of plan types, including the non-enhanced benefit packages (i.e., the three basic plan variants), and demonstration and non-demonstration enhanced benefit packages. We also differentiated expenditures and utilization for demonstration enhanced benefit plans by fixed versus flexible demonstration options. The report analyzes expenditures and utilization in demonstration versus non-demonstration benefit plans by various beneficiary characteristics, including demographics, health status, disease groups, and drug classes.

The purpose of the expenditures and utilization analysis was to answer the following research questions:

1. How did expenditures and utilization for Part D covered drugs in demonstration plans compare to non-demonstration plans?

2. Did expenditures and utilization for Part D covered drugs in demonstration versus non-demonstration plans vary by beneficiary demographic, health status, disease group, and drug class characteristics?

3. What factors influenced expenditures and utilization for demonstrations plans compared to non-demonstration plans?

4. To what extent has the Part D reinsurance demonstration caused induced demand for Part D covered drugs?

We now outline the methods and data we use to answer these research questions.

6.1 Methods

Our expenditure and utilization analysis was conducted on 2007 Part D enrollees meeting the following criteria:

- No low-income or long-term institutional Part D months in 2007

- No enrollment in Part D employer, cost, or PACE plans in 2007

- 12 months of Part A and B enrollment during 2006

- Continuous Part D enrollment throughout 2007 (or if died, through month of death)

- No switching between PDP and MAPD plans in 2007

- No enrollment in Part D plans serving Puerto Rico, Virgin Islands, or Guam in 2007

The reasons for these criteria are varied. Importantly, the sample excludes beneficiaries receiving the Part D low-income subsidy. These beneficiaries are by definition low-income, and except in special circumstances, are not likely to enroll in enhanced benefit plans (which tend to have positive supplemental premiums).[37] Part D employer, cost, and PACE plans are excluded because these plans are not eligible for the Part D reinsurance demonstration. Requiring 12 months of 2006 Part A and B excludes new Medicare beneficiaries from the sample, who do not have a full year of prior year diagnoses. Requiring continuous Part D enrollment throughout 2007 (or if died, through month of death), and no switching between PDP and MAPD plans in 2007, are not expected to change the qualitative results, but do make the analytic file construction more tractable. For example, these restrictions increase the likelihood that a beneficiary is not enrolled in more than one Part D plan in 2007.[38] Finally, beneficiaries enrolled in plans serving U.S. territories are excluded because there are some questions on the comparability of the data for these beneficiaries. After all the sample criteria are applied, the sample size is N = 10,968,984.

The purpose of the expenditure and utilization analysis was to determine the impact of the Part D reinsurance demonstration on Part D expenditures and utilization for covered drugs. The dimensions of the analysis are thus plan benefit type and expenditures/utilization. We created indicator variables for plan benefit type, including:[39]

- Non-Enhanced Plans—Plans that do not offer supplemental coverage (includes standard defined benefit plans, actuarially equivalent plans, and basic alternative plans).

- Enhanced Plans—Plans that offer supplemental coverage (includes non-demo enhanced plans and demo enhanced plans).

- Non-Demo Enhanced Plans—Non-demo plans that offer supplemental coverage.

- Demo Enhanced Plans—Demo plans, which by definition offer supplemental coverage.

In addition to plan benefit type, we also differentiated between PDP and MAPD plans in the expenditure and utilization analysis. We present findings separately for the PDP sample and for the MAPD sample, as well as presenting findings for the combined PDP+MAPD sample.

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37 One special circumstance that would make it possible for a low-income beneficiary to enroll in an enhanced coverage plan is if an MAPD enhanced coverage plan was offered with a supplemental premium equal to $0.

38 Even with these sample criteria, a relatively small number of beneficiaries were enrolled in more than one Part D plan in 2007. In these cases, we identified the beneficiary's Part D plan as the plan they were enrolled in for more months than any other plan (i.e., plurality). Ties were broken by enrollment dates, with latter dates trumping earlier dates.

39 For additional details on these plan benefit types, see Chapter 1.

The variables of interest for the expenditure and utilization analysis are Part D total expenditures and number of 30-day scripts:

- Total Expenditures—We examine Part D total expenditures at the beneficiary-level. Total expenditures include the amount paid for covered Part D drugs, regardless of payer, toward allowable point of sale costs. We created a total expenditure variable from the Prescription Drug Event (PDE) database (see Section 2.4 for details on the PDE) by summing the variables "below_oop_thrhld" (GDCB) and "above_oop_thrhld" (GDCA) in the PDE. We then (i) annualized the total expenditure variable by dividing it by the fraction of months in 2007 the beneficiary was enrolled in Part D, and then (ii) weighted by this "eligibility fraction". For example, in 2007 if a beneficiary's total expenditures was $1,000 and they were enrolled in Part D for six months, then their eligibility fraction would be 0.5 (6 / 12 = 0.5) and their annualized total expenditures would be $2,000 ($1,000 / 0.5 = $2,000).

- 30-day Scripts—We also examine Part D number of 30-day scripts at the beneficiary-level. 30-day scripts are defined as the total number of days supplied for covered drugs, divided by 30. In the PDE database there is a variable for the number of days of medication provided by the current prescription, which is called "days_supply". As with total expenditures, number of 30-day scripts is annualized and then weighted by the eligibility fraction.

The analysis examined expenditures and utilization by plan benefit type for the overall sample, as well as by selected beneficiary characteristics, including:

- Age (0-64, 65-74, 75-84, and 85+)
- Sex (female/male)
- Race (black, white, other)
- Census region for beneficiary residence (northeast, south, midwest, west)
- Urbanicity for beneficiary residence (urban/rural)
- Current reason for Medicare entitlement (aged/disability/ESRD)[40]
- Mortality (decedent in 2007/survived throughout 2007)
- RxHCC risk score percentiles (0-5%, 5-25%, 25-50%, 50-75%, 75-95%, 95-100%)
- Medicare RxHCC disease groups (84 disease groups)

[40] The current reason for Medicare entitlement variable underestimates the number of end-stage renal disease (ESRD) beneficiaries. In the final report we will attempt to incorporate a more accurate marker for ESRD.

- American Hospital Formulary Service (AHFS) drug classes (30 drug classes)

RxHCC disease groups and risk scores are derived from the RxHCC Risk Adjustment model used for Part D capitation payments. In the RxHCC model, demographics and diagnoses are used to predicted Part D expenditures. Specifically, 84 disease groups, or RxHCCs, from year 1 are used to predict Part D expenditures in year 2. The Rx-HCC risk score is an expenditure-weighted index of a beneficiary's diagnoses that predicts the relative risk of future Medicare Part D expenditures. An RxHCC risk score greater than 1.0 indicates the beneficiary has higher predicted Part D expenditures than the national average, and an RxHCC risk score less than 1.0 indicates lower than average.

The AHFS Pharmacologic-Therapeutic Classification has been in use in hospitals in the United States since its inception in 1959. An integral part of the American Hospital Formulary Service, the AHFS classification allows the grouping of drugs with similar pharmacologic, therapeutic, and/or chemical characteristics in a 4-tier hierarchy. There are 30 primary classifications, 183 secondary classifications, 252 tertiary classifications, and 88 quaternary classifications represented by coding and a text description. Today, the AHFS classification is used by many people outside of hospitals. Because of time and resource constraints, in this study we only use the 30 primary classifications.

6.1.1 Descriptive Analysis

The descriptive analysis compares expenditures and utilization by plan benefit type, and incorporates the following descriptive elements:

- Plan benefit type (non-enhanced vs. enhanced; non-demo enhanced vs. demo enhanced; demo enhanced flexible vs. demo enhanced fixed)

- Expenditures and utilization (total expenditures, utilization rate, number of scripts, number of 30-day scripts, initial coverage range, gap coverage range, catastrophic coverage range)

- Part D standalone plans (PDP plans) versus Part D plans that are integrated in a Medicare Advantage private plan (MAPD plans)

- Geographic area (urban/rural, census region)

- Demographics/enrollment (age, sex, race, current reason for Medicare entitlement)

- Diagnoses (RxHCC disease groups, RxHCC risk scores)

- Drug Classes (AHFS drug classes)

6.1.2 Multivariate Analysis

To identify the factors determining Part D expenditures and utilization, we use multivariate modeling. The basic regression model can be expressed in the following manner:

$$Y = \beta_0 + \beta_1 X + \beta_2 M + \beta_3 E + \beta_4 D + \varepsilon$$

In the above equation, *Y* is the variable of interest, either expenditures or utilization. The beneficiary characteristics, represented by *X*, include demographic/enrollment characteristics (age, sex, race, current reason Medicare entitlement), geographic area of residence (urban/rural, census region), and the Rx-HCC risk score, which is used to control for predicted drug costs. Whether the beneficiary is enrolled in a PDP or MAPD was used as a proxy for medical plan characteristics, represented by *M*.[41]

The model also includes an indicator variable, represented by *E*, for enrollment in an enhanced plan. Other things equal, if enhanced drug coverage results in higher expenditures and utilization for covered drugs (induced demand), then the coefficient on the enhanced plan indicator, β_3, would be positive. Note that the coefficient β_3 is the "main effect" for having enhanced coverage. The model also includes an indicator variable, represented by *D*, for enrollment in a demo enhanced plan. The coefficient on the demo enhanced plan indicator, β_4, is the marginal effect of having demo enhanced coverage, and would be positive if demo enhanced coverage had more of an impact on expenditures and utilization than did non-demo enhanced coverage.

6.1.3 Data

The data sources for the expenditures and utilization analysis include:

- *Prescription Drug Event (PDE) Standard Analytic File (SAF).* The PDE is a prescription drug event level CMS database that has Part D claims information for 100% of Medicare Part D enrollees, including NDC code, days supplied, and total expenditures. For this study we used the 2007 PDE SAF.

- *CME Database.* The CME database is a beneficiary-level database that contains extensive information about Medicare beneficiaries, including Medicare program enrollment information, Medicare health plan enrollment, Part D enrollment, and beneficiary demographic characteristics.

- *CMS Health Plan Management System (HPMS).* The HPMS collects service area, premium, and benefit information for MA and Part D plans. This information is submitted by plans annually, or more frequently if the data change. The HPMS Plan Benefit Package (PBP) datasets are available for each month and contain information describing the benefit package provided by each plan.

- *CMS Rx-HCC Risk Score File.* The Rx-HCC Risk Score File contains Part D risk scores for 100% of the Medicare population. For each beneficiary, the file provides an Rx-HCC risk score, which is the predicted drug costs for that year based on prior

[41] We did consider also including a variable for plan generosity, and in fact included one in preliminary versions of the multivariate models. However, given inclusion of plan generosity didn't change the qualitative results, coupled with endogeneity concerns, we decided not to include plan generosity in our final multivariate models.

year diagnoses, and the 84 RxHCC disease groups. The payment year 2007 (based on 2006 diagnoses) Rx-HCC Risk Score File is used in this study.

Developing the analytical data files for this report required merging multiple data sources from the PDE, CME, HPMS, and other data sources. The data from different source files were not always fully consistent (e.g., a small number of plans or counties might not match between data files). We merged files and reconciled data as completely as possible, and merges were usually perfect or nearly so. In some cases, we found that variables were not reported accurately in the source data. For example, not all Part D plans may have responded to certain items on the HPMS, and certain CME fields might not have contained usable data. If data fields did not appear to be substantially complete and accurate, we did not use them in our analyses.

6.2 Descriptive Analysis

In this section, a series of descriptive analyses are presented to examine whether there were systematic differences between reinsurance demonstration and non-demonstration plan enrollees' use of, and expenditures for, Medicare Part D prescription drugs. In theory, because demonstration plans had the advantage of increased up front reimbursement from Medicare, they had the ability to offer richer benefits to enrollees; richer benefits may be reflected in higher expenditures and utilization of drugs. While our previous analyses show some evidence that the Part D reinsurance demonstration plans provided marginally improved benefits (Greenwald, et al., 2008), this analysis considers whether there were differences between the actual benefits utilized by enrollees.

6.2.1 Expenditures and Utilization Summary

Table 6-1 summarizes a range of expenditure and utilization variables, presented for enrollees in non-enhanced, all enhanced, non-demonstration enhanced, and demonstration enhanced plans. Overall, enrollees in demonstration enhanced plans had the highest total annualized expenditures ($1,916), compared to non-demonstration enhanced plans ($1,765) or non-enhanced plans ($1,764). Due to the distribution of enrollees in plans[42], the patterns did not hold when PDPs and MAPDs were analyzed separately. Among PDPs, non-demonstration enhanced plan enrollees had higher annualized expenditures ($2,382) compared to demonstration enhanced plans ($2,260). For MAPDs, the mean non-demonstration expenditures were $1,444 compared to $1,387 for demonstration plans. We can conclude that, while overall demonstration enhanced enrollees had higher total expenditures, the results contain variation and are highly sensitive to the distribution of enrollees in specific plans. Across all categories, enrollees in enhanced plans had higher annualized expenditures compared to enrollees in non-enhanced plans.

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42 It is possible for the overall means for two groups to follow a different pattern than the PDP and MAPD means for those groups. For example, while the overall mean (for total expenditures) for demo enhanced is greater than for non-demo enhanced ($1,916 vs. $1,765), both the PDP and MAPD means for demo enhanced are less than PDP and MAPD means for non-demo enhanced ($2,260 vs. $2,382 for PDP; and $1,378 vs. 1,444 for MAPD). The reason for this is because it is possible for the distributions of PDP vs. MAPD for two groups to follow a different pattern. For example, for demo enhanced the distribution of PDP vs. MAPD is 61.1 percent and 38.9 percent, respectively, whereas for non-demo enhanced the distribution of PDP vs. MAPD is 34.3 percent and 65.7 percent, respectively.

Table 6-1
Part D beneficiary cost and use

Plan Type	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
Observations							
Overall—N	10,968,984	5,265,591	5,703,393	3,216,137	2,487,256	2,431,955	55,301
PDP—N	7,107,902	4,486,284	2,623,561	1,103,135	1,519,713	1,519,972	—
PDP—%	64.8	85.2	46.0	34.3	61.1	62.5	—
MAPD—N	3,861,082	779,307	3,079,832	2,113,002	967,543	911,983	55,301
MAPD—%	35.2	14.8	54.0	65.7	38.9	37.5	100.0
Total Expenditures							
Overall	1,799	1,764	1,831	1,765	1,916	1,925	1,557
PDP	2,019	1,848	2,312	2,382	2,260	2,260	—
MAPD	1,396	1,286	1,424	1,444	1,378	1,367	1,557
Utilization Rate							
Overall	93.2%	92.7%	93.7%	93.4%	94.2%	94.3%	88.7%
PDP	94.0	92.8	96.1	96.1	96.1	96.1	—
MAPD	91.7	91.7	91.7	92.0	91.0	91.2	88.7
# of Prescriptions							
Overall	32.4	31.5	33.2	32.0	34.8	35.0	27.2
PDP	35.0	32.9	38.6	39.4	38.0	38.0	—
MAPD	27.6	23.5	28.7	28.2	29.8	30.0	27.2

(continued)

Table 6-1 (continued)
Part D beneficiary cost and use

Plan Type	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
# of 30-Day Supplies							
Overall	37.8	37.2	38.3	37.9	38.9	39.0	35.1
PDP	39.9	37.6	43.7	45.5	42.4	42.4	—
MAPD	34.0	34.7	33.8	33.9	33.5	33.4	35.1
Initial Coverage Range							
Overall	74.6%	75.4%	73.9%	75.2%	72.3%	72.2%	79.7%
PDP	70.3	73.7	64.7	63.0	66.0	66.0	—
MAPD	82.5	85.2	81.8	81.6	82.3	82.4	79.7
Coverage Gap Range							
Overall	21.5%	21.1%	21.9%	21.2%	22.8%	23.0%	16.6%
PDP	24.8	22.5	28.8	30.7	27.3	27.3	—
MAPD	15.5	12.9	16.1	16.3	15.8	15.8	16.6
Catastrophic Range							
Overall	3.9%	3.6%	4.1%	3.6%	4.9%	4.9%	3.7%
PDP	4.9	3.9	6.6	6.3	6.7	6.7	—
MAPD	2.0	1.9	2.1	2.1	1.9	1.8	3.7

(continued)

Table 6-1 (continued)
Part D beneficiary cost and use

NOTES:

1. Analytic sample is restricted to Part D beneficiaries meeting the following criteria:
   (a) Continuous Part D enrollment throughout 2007 (or if died, through month of death)
   (b) 12 months of Part A and B during 2006
   (c) No switching between PDP and MAPD plans in 2007
   (d) No low-income or long-term institutional Part D months in 2007
   (e) No enrollment in Part D employer, cost, or PACE plans in 2007
   (f) No enrollment in Part D plans serving Puerto Rico, Virgin Islands, or Guam in 2007
2. Total expenditures include amount paid for covered Part D drugs, regardless of payer.
3. Total expenditures are (i) annualized by dividing by the fraction of months in 2007 the beneficiary was enrolled in Part D, and then (ii) weighted by this fraction.
4. Plan liability defined as CPP - 0.8*GDCA. Plan liability annualized and weighted.
5. Number of prescriptions annualized and weighted.
6. Number of 30-day supplies calculated by first summing total number of days supplied for covered drugs, and then dividing by 30. Number of 30-day supplies annualized and weighted.
7. Coverage gap ranges definitions based on unannualized total expenditures (UATE) and 2007 standard defined benefit:
   (a) Initial coverage range if UATE <= $2,400
   (b) Coverage gap range if $2,400 < UATE <= $5,451.25
   (c) Catastrophic range if UATE > $5,451.25

SOURCE: RTI analysis of 2007 PDE, CME, HPMS, Denominator, and RxHCC Files.

Utilization rates (defined as the percentage of enrollees filling at least one prescription) varied only slightly between demonstration and non-demonstration enhanced plans. The analysis also considered the mean annualized number of prescriptions filled. Again, there was minimal variation between demonstration and non-demonstration enhanced plans. Overall, demonstration enhanced enrollees filled an average of 34.8 prescriptions per year, compared to 32.0 for the non-demonstration enhanced enrollees. Enrollees in all enhanced plans filled a larger number of prescriptions (33.2) compared to enrollees in non-enhanced plans (31.5). Similar patterns were noted for utilization as measured by mean number of 30-day supplies. Interestingly, across all these measures, enrollees in MAPDs across all types of plans had lower expenditures and had lower mean utilization rates compared to enrollees in PDP plans.

The analysis presented in Table 6-1 also considered the proportion of beneficiaries by prescription drug utilization in coverage ranges: (1) utilization only in the initial coverage range (unannualized[43] total expenditures less than $2,400); (2) utilization in the initial coverage range and in the coverage gap (between $2,400 and $5,451.25); and (3) utilization in the initial coverage range, in the coverage gap, and in the catastrophic range (over $5,451.25 in total expenditures). As expected, across all plans, the greatest proportion of beneficiaries fell within the initial coverage range. Demonstration enhanced plans (at 72.3 percent) had a lower proportion of their beneficiaries fall into the initial coverage range compared to non-demonstration enhanced plans (75.2 percent). Overall, all enhanced plans had a lower (73.9 percent) proportion of beneficiaries in the initial coverage range compared to non-enhanced plans (75.4 percent), suggesting that enrollees in enhanced plans are incurring higher total expenditures that are more likely to fall in the coverage gap or catastrophic coverage range. Across all plan types, enrollees in MAPDs had higher proportions of beneficiaries in the initial coverage range compared to PDPs. This is consistent with the finding that enrollees in MAPDs had overall lower expenditures and filled fewer prescriptions on average – all of which made enrollees in managed care plans less likely to have spending that fell in the higher categories. The findings for proportion of beneficiaries in the catastrophic range confirm this; enrollees in all MAPD plan types had a smaller proportion (by about 2 percentage points) of beneficiaries in the catastrophic range compared to PDP plan types. Demonstration enhanced plans had a greater proportion (4.9 percent) of enrollees in the catastrophic range compared to non-demonstration enhanced plans (3.6 percent).

[43] Unannualized expenditures is the actual expenditures incurred in a given year, not corrected for instances when individual enrollees may not have been eligible and/or enrolled for a full 12 months. In contrast, annualized expenditures are estimated by dividing by the fraction of months the beneficiary was enrolled in Part D, and then weighted by this fraction.

6.2.2 Expenditures by Beneficiary Characteristics

One explanation for the differences in expenditures and prescription drug utilizations observed between different plan types in Table 6-1 is an underlying difference in the spending for subpopulations enrolled in these plans. Different subpopulation groups (such as older enrollees) are associated with higher spending. **Table 6-2** shows annualized mean total expenditures by key subpopulations of enrollees for all Part D plans. By comparing expenditures across different subpopulations, we can determine whether there were any systematic differences in spending that might be attributable to plan type.

Table 6-2 presents findings for total expenditures by beneficiary characteristics for all Part D plans. Across all age subpopulations, enrollees in demonstration enhanced plans had higher annualized expenditures compared to non-demonstration enhanced plans. For example, the oldest age group of enrollees over age 85 had annualized expenditures of $2,103 for demonstration enhanced plans compared to $1,836 for non-demonstration enhanced plans. Comparing all enhanced plans to non-enhanced plans, we found a mixed pattern among the age subpopulations. Among enrollees aged 64 and under, enhanced plan enrollees had annualized expenditures of $2,560 compared to $2,272 for non-enhanced enrollees. However, among the oldest enrollees (85 and older), non-enhanced plans had higher expenditures ($2,014) compared to enhanced plans ($1,947). Findings for additional subpopulations (including sex, race, current reason for Medicare entitlement, mortality, and risk score category) consistently showed that average annualized expenditures among demonstration enhanced plans were higher compared to non-demonstration plans in all sub-categories. For example, spending for both males and females among demonstration enhanced plans were more than $100 annually compared to non-demonstration enhanced plans. This persistent trend suggests that demonstration enhanced plan spending is higher as a function of benefit structure and enrollment mix, not as a result of higher spending within a particularly high or low risk sub-population.

Table 6-2 also examined some geographic subgroups; the findings suggest some differences between the spending patterns among the geographic subpopulations. We found that demonstration enhanced plans enrollees had higher spending compared to non-demonstration enhanced plans in all census regions except the South – despite the fact that Southern demonstration enhanced plans overall had higher annualized spending compared to non-demonstration enhanced plans. This suggests some slightly different benefit and/or plan behavioral responses in Southern demonstration enhanced plans. Also, findings from Table 6-2 show that demonstration enhanced plans had higher spending compared to non-demonstration enhanced plans in large and medium urban counties, but the trend reverses for small urban and all rural counties. This finding suggests that the geographic location of the plan plays a particular role in annualized expenditures across all plan types.

Analysis of total expenditures also found some notable differences between non-enhanced and enhanced plan spending. Across most subpopulation categories, enhanced plan enrollees had higher annualized spending compared to non-enhanced plans. There were some exceptions, however. Older enrollees (those over age 85) in non-enhanced plans had higher expenditures (by $67) compared to enrollees in enhanced plans.

Table 6-2
Part D total expenditures by beneficiary demographic and health status characteristics

Variable	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
Total	1,799	1,764	1,831	1,765	1,916	1,924	1,557
Age							
0-64	2,434	2,272	2,560	2,513	2,607	2,609	2,501
65-74	1,625	1,558	1,685	1,642	1,738	1,745	1,446
75-84	1,840	1,847	1,833	1,759	1,938	1,947	1,551
85+	1,982	2,014	1,947	1,836	2,103	2,113	1,564
Sex							
Female	1,857	1,816	1,896	1,829	1,984	1,992	1,633
Male	1,712	1,681	1,739	1,675	1,822	1,830	1,467
Race/Ethnicity							
White, non-Hispanic	1,830	1,787	1,871	1,806	1,953	1,960	1,580
Black, non-Hispanic	1,490	1,520	1,467	1,424	1,523	1,522	1,542
Other, non-Hispanic	1,462	1,416	1,498	1,416	1,649	1,670	1,328
Hispanic, all races	1,426	1,435	1,422	1,381	1,498	1,500	1,431
Census Region							
Northeast	1,966	1,999	1,928	1,796	2,385	2,417	1,843
Midwest	1,766	1,636	1,898	1,865	1,925	1,925	1,182
South	1,891	1,873	1,907	1,923	1,890	1,890	1,630
West	1,556	1,518	1,586	1,479	1,768	1,794	1,483

(continued)

Table 6-2 (continued)
Part D total expenditures by beneficiary demographic and health status characteristics

Variable	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
Urbanicity							
Urban	1,805	1,809	1,801	1,719	1,925	1,936	1,566
Large Urban	1,802	1,853	1,762	1,673	1,915	1,929	1,600
Medium Urban	1,801	1,772	1,827	1,749	1,939	1,946	1,161
Small Urban	1,828	1,702	1,973	2,013	1,942	1,942	1,611
Rural	1,776	1,626	1,963	2,075	1,890	1,892	1,430
Rural-adjacent	1,793	1,668	1,948	2,045	1,875	1,879	1,434
Rural non-adjacent	1,747	1,553	1,991	2,138	1,913	1,913	1,330
Current Reason for Medicare Entitlement							
Age	1,752	1,730	1,773	1,712	1,853	1,861	1,497
Disability	2,406	2,243	2,533	2,483	2,583	2,585	2,476
ESRD	3,809	3,481	4,217	4,352	4,088	4,080	5,037
Mortality							
Died in 2007	2,689	2,673	2,704	2,555	2,903	2,917	2,340
Survived 2007	1,771	1,736	1,804	1,740	1,886	1,894	1,530

(continued)

Table 6-2 (continued)
Part D total expenditures by beneficiary demographic and health status characteristics

Variable	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
RxHCC Risk Score Percentiles							
0-5% (lowest)	419	417	421	417	428	433	316
5-25%	898	878	917	905	932	937	723
25-50%	1,451	1,444	1,459	1,424	1,503	1,509	1,263
50-75%	1,982	1,961	2,001	1,933	2,090	2,095	1,856
75-95%	2,723	2,689	2,751	2,633	2,903	2,908	2,675
95-100% (highest)	4,119	4,158	4,087	3,892	4,321	4,324	4,172

NOTES:

1. Analytic sample is restricted to Part D beneficiaries meeting the following criteria:
   (a) Continuous Part D enrollment throughout 2007 (or if died, through month of death)
   (b) 12 months of Part A and B during 2006
   (c) No switching between PDP and MAPD plans in 2007
   (d) No low-income or long-term institutional Part D months in 2007
   (e) No enrollment in Part D employer, cost, or PACE plans in 2007
   (f) No enrollment in Part D plans serving Puerto Rico, Virgin Islands, or Guam in 2007
2. Total expenditures include amount paid for covered Part D drugs, regardless of payer.
3. Total expenditures are (i) annualized by dividing by the fraction of months in 2007 the beneficiary was enrolled in Part D, and then (ii) weighted by this fraction.
4. RxHCC risk scores for payment year 2007 (2006 diagnoses).
5. Percentiles are defined according to unweighted score_rx percentiles in the combined MA&PDP file

SOURCE: RTI analysis of 2007 PDE, CME, HPMS, Denominator, and RxHCC Files.

Table 6-3 and **Table 6-4** repeat the analysis of expenditures by population subgroup for PDP and MAPD plans, respectively. The findings for PDPs (Table 6-3) are more mixed than for the overall Part D analysis and with a general trend opposite that of total Part D enrollees; PDP enrollees in non-demonstration enhanced plans tend to have higher total expenditures than PDP enrollees in demonstration enhanced plans. For example, among age groups, younger enrollees (under age 64) in non-demonstration enhanced plans had higher annualized expenditures (at $3,316) compared to demonstration enhanced plan enrollees ($3,164). This same pattern occurs across other sub-population groupings as well, with a few exceptions including black non-hispanic enrollees and the two highest risk score groupings. Interestingly, differences observed among geographic subgroups for all Part D enrollees largely disappear among PDP enrollees. Patterns in findings for MAPD enrollees (Table 6-4) are similar to the PDP results. In general, MAPD enrollees have lower Part D total expenditures relative to PDP enrollees. However, similar to PDP enrollees, MAPD enrollees in non-demonstration enhanced plans almost universally have higher annualized spending compared to demonstration enhanced enrollees. The one exception was MAPD enrollees in the Northeast (where demonstration enhanced enrollees had higher total expenditures than non-demonstration enhanced enrollees by $140 annually).

6.2.3 Prescription Drug Utilization by Beneficiary Characteristics

The next part of our descriptive analysis repeated the beneficiary characteristic analysis using an alternative metric: annualized number of Part D 30-day supply prescriptions. **Table 6-5** presents findings for all Part D enrollees. Similar to the findings for annualized expenditures, enrollees in the demonstration enhanced plans persistently have higher average annualized numbers of Part D 30-day prescriptions. Overall, enrollees in demonstration enhanced plans used 38.9 prescriptions annually, compared to 37.9 for non-demonstration enhanced enrollees. These patterns persisted among most subpopulations, though sometimes the substantive differences were small. For example, females enrolled in demonstration enhanced plans had 41.0 prescriptions compared to 39.8 among female non-demonstration enhanced enrollees. There were a few exceptions to the pattern of higher utilization among demonstration compared to non-demonstration enrollees. Non-demonstration enhanced enrollees in the Midwest and South consumed a greater number of 30-day supply prescriptions compared to demonstration enhanced enrollees in the same census regions. Also, similar to the findings of expenditures, non-demonstration enhanced enrollees in small urban and rural counties also consumed more prescriptions on average than their demonstration enhanced counterparts. As with the analysis of expenditures, these findings suggest that there is a geographic component that impacts both total expenditures and utilization of drugs that differs from the patterns observed among national population groups.

The findings of PDP and MAPD analyses of 30-day prescriptions are similar to the analyses for annualized expenditures. **Table 6-6** shows results for PDPs. Like the trends for expenditures, enrollees in non-demonstration enhanced plans had higher average numbers of 30-day prescription drugs across all age, sex, race, urbanicity and eligibility groupings than in demonstration enhanced plans. The pattern remained for most other subgroups with some exceptions. Utilization was higher among non-demonstration enhanced enrollees in the Midwest, South and West, but not in the Northeast. Demonstration enhanced enrollees who died in 2007 and who were in the highest risk categories also had higher utilization relative to the non-demonstration enhanced enrollee counterparts, but only slightly. The table also shows that,

across all the subpopulation groups, enrollees in enhanced plans had higher utilization than enrollees in non-enhanced plans.

Table 6-7 repeats this analysis for MAPD plans. In general, enrollees in MAPD plans utilize about five fewer 30-day supply prescriptions annually compared to enrollees electing PDPs. The observed relationship between demonstration and non-demonstration enhanced plans is generally repeated for MAPDs, though there is more variation within the categories, and differences are not substantively large. For example, utilization among non-demonstration enhanced plans is higher than in demonstration enhanced plans for the youngest (age <= 64) and oldest (age >=85) MAPD enrollees, and lower in the middle two age groups. Demonstration enhanced plan enrollees in the Northeast have the highest (at 36.1) number of 30-day supply prescriptions of all the census regions. Non-demonstration enhanced enrollees in the lowest two RxHCC risk score categories have higher utilization compared to demonstration enhanced enrollees. In the middle category (25-50% percentile) the demonstration and non-demonstration enhanced plan enrollee utilization is the same, and then the trend reverses with demonstration enhanced enrollees consuming higher number of prescriptions in the higher risk score percentile groups.

6.2.4 Prescription Drug Expenditures and Utilization by RxHCC Disease Category

The next set of analyses examine total annualized Part D drug expenditures and utilization of 30-day supplies of drugs by RxHCC disease categories. The RxHCC disease categories are used in the Medicare Part D payment systems to risk adjust reimbursements to Part D drug plans. RxHCC disease categories are essentially clinical categories that are relevant in predicting future financial risk for prescription drugs. Individuals assigned to an RxHCC disease category are a subset of Medicare beneficiaries with known chronic conditions most likely to require use of prescription drugs in future years. Comparing expenditures and utilization within the RxHCC disease categories can indicate whether enrollees with known clinical conditions and predicted prescription drug utilization had different experiences in different plan types.

Table 6-8 shows total annualized Part D expenditures by RxHCC disease categories. In general, as expected, enrollees placed in an RxHCC disease category have higher annualized total expenditures than the average Part D enrollee.[44] RxHCC subgroups in non-enhanced plans generally had lower expenditures than similar enrollees in enhanced plans, with 75 out of 84 RxHCCs having lower expenditures. Across almost every RxHCC disease category (82 out of 84 RxHCCs), enrollees in demonstration enhanced plans had higher expenditures than enrollees in non-demonstration enhanced plans. For example, beneficiaries categorized in RxHCC18 (Diabetes without Complications) enrolled in demonstration enhanced plans had average annualized expenditures of $2,425, compared to $2,191 for non-demonstration enhanced plans. There were a couple of exceptions: non-demonstration enhanced plans enrollees in RxHCC1 (HIV/AIDs) had slightly higher expenditures (at $13,745) compared to demonstration enhanced plans ($13,235), as was also the case for RxHCC132 (Kidney Transplant Status) ($4,273 vs. $3,934).

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[44] In Table 3-8, compared to the overall mean of $1,799, the average RxHCC subgroup is 62 percent higher, and the median RxHCC subgroup is 43 percent higher.

Table 6-3
Part D total expenditures by beneficiary demographic and health status characteristics—PDP

Variable	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
Total	2,019	1,848	2,311	2,382	2,260	2,260	—
Age							
0-64	2,678	2,303	3,225	3,316	3,164	3,164	—
65-74	1,817	1,639	2,105	2,202	2,036	2,036	—
75-84	2,085	1,938	2,349	2,406	2,306	2,306	—
85+	2,217	2,090	2,471	2,463	2,477	2,477	—
Sex							
Female	2,051	1,891	2,331	2,394	2,285	2,285	—
Male	1,966	1,775	2,281	2,364	2,222	2,222	—
Race/Ethnicity							
White, non-Hispanic	2,037	1,863	2,332	2,409	2,277	2,277	—
Black, non-Hispanic	1,729	1,625	1,936	1,899	1,976	1,976	—
Other, non-Hispanic	1,793	1,632	2,072	2,216	1,992	1,992	—
Hispanic, all races	1,713	1,607	1,925	2,052	1,838	1,838	—
Census Region							
Northeast	2,193	2,120	2,364	2,237	2,492	2,492	—
Midwest	1,884	1,651	2,266	2,275	2,260	2,260	—
South	2,092	1,917	2,370	2,497	2,257	2,257	—
West	1,911	1,730	2,209	2,388	2,127	2,127	—

(continued)

Table 6-3 (continued)
Part D total expenditures by beneficiary demographic and health status characteristics—PDP

Variable	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
Urbanicity							
Urban	2,091	1,928	2,383	2,426	2,351	2,351	—
Large Urban	2,172	2,020	2,465	2,474	2,457	2,457	—
Medium Urban	2,041	1,859	2,355	2,389	2,328	2,328	—
Small Urban	1,923	1,732	2,211	2,344	2,128	2,128	—
Rural	1,840	1,640	2,150	2,272	2,071	2,071	—
Rural-adjacent	1,870	1,687	2,161	2,293	2,069	2,069	—
Rural non-adjacent	1,792	1,560	2,133	2,237	2,074	2,074	—
Current Reason for Medicare Entitlement							
Age	1,972	1,817	2,240	2,312	2,187	2,187	—
Disability	2,647	2,273	3,195	3,278	3,139	3,139	—
ESRD	3,860	3,480	4,386	4,544	4,257	4,257	—
Mortality							
Died in 2007	2,964	2,757	3,296	3,206	3,367	3,367	—
Survived 2007	1,988	1,819	2,278	2,353	2,224	2,224	—

(continued)

Table 6-3 (continued)
Part D total expenditures by beneficiary demographic and health status characteristics—PDP

Variable	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
RxHCC Risk Score Percentiles							
0-5% (lowest)	507	444	662	729	622	622	—
5-25%	1,014	926	1,192	1,320	1,116	1,116	—
25-50%	1,599	1,502	1,777	1,866	1,714	1,714	—
50-75%	2,156	2,023	2,376	2,402	2,357	2,357	—
75-95%	2,938	2,755	3,205	3,147	3,251	3,251	—
95-100% (highest)	4,385	4,200	4,622	4,438	4,766	4,766	—

NOTES:

1. Analytic sample is restricted to Part D beneficiaries meeting the following criteria:
   (a) Continuous Part D enrollment throughout 2007 (or if died, through month of death)
   (b) 12 months of Part A and B during 2006
   (c) No MAPD months in 2007
   (d) No low-income or long-term institutional Part D months in 2007
   (e) No enrollment in Part D employer, cost, or PACE plans in 2007
   (f) No enrollment in Part D plans serving Puerto Rico, Virgin Islands, or Guam in 2007
2. Total expenditures include amount paid for covered Part D drugs, regardless of payer.
3. Total expenditures are (i) annualized by dividing by the fraction of months in 2007 the beneficiary was enrolled in Part D, and then (ii) weighted by this fraction.
4. RxHCC risk scores for payment year 2007 (2006 diagnoses).
5. Percentiles are defined according to unweighted score_rx percentiles in the combined MA&PDP file

SOURCE: RTI analysis of 2007 PDE, CME, HPMS, Denominator, and RxHCC Files.

Table 6-4
Part D total expenditures by beneficiary demographic and health status characteristics—MAPD

Variable	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
Total	1,396	1,286	1,424	1,444	1,378	1,367	1,557
Age							
0-64	2,031	2,104	2,015	2,063	1,947	1,927	2,501
65-74	1,280	1,140	1,318	1,343	1,266	1,255	1,446
75-84	1,401	1,312	1,423	1,447	1,363	1,351	1,551
85+	1,450	1,398	1,462	1,486	1,399	1,390	1,564
Sex							
Female	1,466	1,347	1,497	1,515	1,456	1,446	1,633
Male	1,305	1,206	1,329	1,351	1,285	1,274	1,467
Race/Ethnicity							
White, non-Hispanic	1,419	1,316	1,445	1,470	1,390	1,379	1,580
Black, non-Hispanic	1,259	1,182	1,278	1,257	1,308	1,290	1,542
Other, non-Hispanic	1,190	1,006	1,260	1,262	1,254	1,242	1,328
Hispanic, all races	1,297	1,058	1,335	1,313	1,384	1,381	1,431
Census Region							
Northeast	1,626	1,530	1,661	1,654	1,794	1,765	1,843
Midwest	1,354	1,293	1,360	1,436	1,275	1,275	1,182
South	1,414	1,314	1,427	1,414	1,444	1,444	1,630
West	1,265	1,143	1,314	1,318	1,304	1,261	1,483

(continued)

Table 6-4 (continued)
Part D total expenditures by beneficiary demographic and health status characteristics—MAPD

Variable	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
Urbanicity							
Urban	1,401	1,282	1,432	1,444	1,401	1,390	1,566
Large Urban	1,409	1,275	1,442	1,448	1,429	1,414	1,600
Medium Urban	1,381	1,282	1,405	1,427	1,351	1,355	1,161
Small Urban	1,387	1,362	1,395	1,470	1,295	1,294	1,611
Rural	1,329	1,340	1,327	1,448	1,239	1,234	1,430
Rural-adjacent	1,355	1,368	1,351	1,447	1,265	1,258	1,434
Rural non-adjacent	1,246	1,172	1,257	1,451	1,185	1,185	1,330
Current Reason for Medicare Entitlement							
Age	1,346	1,230	1,376	1,402	1,317	1,306	1,497
Disability	2,018	2,078	2,005	2,051	1,939	1,920	2,476
ESRD	3,514	3,492	3,530	3,814	2,990	2,853	5,037
Mortality							
Died in 2007	2,119	2,121	2,118	2,149	2,046	2,024	2,340
Survived 2007	1,375	1,263	1,403	1,423	1,360	1,350	1,530

(continued)

Table 6-4 (continued)
Part D total expenditures by beneficiary demographic and health status characteristics—MAPD

Variable	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
RxHCC Risk Score Percentiles							
0-5% (lowest)	330	330	330	350	292	291	316
5-25%	719	666	735	755	695	693	723
25-50%	1,184	1,117	1,201	1,210	1,181	1,176	1,263
50-75%	1,631	1,552	1,650	1,658	1,633	1,620	1,856
75-95%	2,247	2,201	2,257	2,274	2,219	2,191	2,675
95-100% (highest)	3,448	3,799	3,378	3,427	3,270	3,214	4,172

NOTES:

1. Analytic sample is restricted to Part D beneficiaries meeting the following criteria:
   (a) Continuous Part D enrollment throughout 2007 (or if died, through month of death)
   (b) 12 months of Part A and B during 2006
   (c) No MAPD months in 2007
   (d) No low-income or long-term institutional Part D months in 2007
   (e) No enrollment in Part D employer, cost, or PACE plans in 2007
   (f) No enrollment in Part D plans serving Puerto Rico, Virgin Islands, or Guam in 2007
2. Total expenditures include amount paid for covered Part D drugs, regardless of payer.
3. Total expenditures are (i) annualized by dividing by the fraction of months in 2007 the beneficiary was enrolled in Part D, and then (ii) weighted by this fraction.
4. RxHCC risk scores for payment year 2007 (2006 diagnoses).
5. Percentiles are defined according to unweighted score_rx percentiles in the combined MA&PDP file

SOURCE: RTI analysis of 2007 PDE, CME, HPMS, Denominator, and RxHCC Files.

Table 6-5
Number of Part D 30-day supplies by beneficiary demographic and health status characteristics

Variable	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
Total	37.8	37.2	38.3	37.9	38.9	39.0	35.1
Age							
0-64	37.8	34.8	40.2	40.1	40.4	40.3	43.0
65-74	34.3	33.1	35.4	35.2	35.6	35.7	32.8
75-84	40.1	40.1	40.2	39.4	41.2	41.3	36.6
85+	44.2	44.8	43.6	42.3	45.4	45.6	36.8
Sex							
Female	39.6	39.0	40.3	39.8	41.0	41.1	37.2
Male	35.0	34.3	35.6	35.2	36.0	36.1	32.5
Race/Ethnicity							
White, non-Hispanic	38.3	37.6	39.0	38.6	39.5	39.6	36.1
Black, non-Hispanic	32.4	32.2	32.5	31.8	33.3	33.4	31.6
Other, non-Hispanic	30.6	31.1	30.2	29.6	31.3	31.4	29.6
Hispanic, all races	32.5	30.6	33.4	33.2	33.8	33.8	31.3
Census Region							
Northeast	37.4	37.5	37.4	35.9	42.7	43.2	34.1
Midwest	38.5	36.9	40.1	40.5	39.7	39.7	33.3
South	38.6	37.8	39.2	39.6	38.8	38.8	33.8
West	36.1	36.3	35.9	35.6	36.4	36.5	35.3

(continued)

Table 6-5 (continued)
Number of Part D 30-day supplies by beneficiary demographic and health status characteristics

Variable	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
Urbanicity							
Urban	37.6	37.4	37.8	37.1	38.9	39.0	35.2
Large Urban	37.5	37.6	37.3	36.4	38.9	39.1	35.5
Medium Urban	37.5	37.1	37.9	37.4	38.5	38.5	32.0
Small Urban	38.6	37.1	40.4	41.6	39.3	39.3	35.0
Rural	38.4	36.5	40.7	43.3	39.0	39.1	32.8
Rural-adjacent	38.6	37.1	40.6	42.7	38.9	39.0	32.8
Rural non-adjacent	38.0	35.6	41.0	44.6	39.2	39.2	30.7
Current Reason for Medicare Entitlement							
Age	37.8	37.3	38.2	37.7	38.8	38.9	34.6
Disability	37.6	34.5	39.9	39.8	40.1	40.1	42.6
ESRD	48.1	44.0	53.1	52.4	53.8	53.7	60.6
Mortality							
Died in 2007	45.8	45.7	45.9	44.5	47.7	47.9	39.4
Survived 2007	37.5	36.9	38.1	37.7	38.6	38.7	34.9

(continued)

Table 6-5 (continued)
Number of Part D 30-day supplies by beneficiary demographic and health status characteristics

Variable	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
RxHCC Risk Score Percentiles							
0-5% (lowest)	9.8	10.1	9.7	9.7	9.6	9.7	7.0
5-25%	19.6	19.4	19.7	19.8	19.5	19.6	16.7
25-50%	32.8	33.0	32.7	32.7	32.7	32.8	31.1
50-75%	43.5	43.2	43.8	43.3	44.3	44.3	44.0
75-95%	55.2	54.3	56.0	54.9	57.4	57.4	58.3
95-100% (highest)	68.5	67.1	69.7	67.9	71.8	71.8	73.8

NOTES:

1. Analytic sample is restricted to Part D beneficiaries meeting the following criteria:
   (a) Continuous Part D enrollment throughout 2007 (or if died, through month of death)
   (b) 12 months of Part A and B during 2006
   (c) No switching between PDP and MAPD plans in 2007
   (d) No low-income or long-term institutional Part D months in 2007
   (e) No enrollment in Part D employer, cost, or PACE plans in 2007
   (f) No enrollment in Part D plans serving Puerto Rico, Virgin Islands, or Guam in 2007
2. Number of 30-day supplies calculated by first summing total number of days supplied for covered drugs, and then dividing by 30.
3. Number of 30-day supplies are (i) annualized by dividing by the fraction of months in 2007 the beneficiary was enrolled in Part D, and then (ii) weighted by this fraction.
4. RxHCC risk scores for payment year 2007 (2006 diagnoses).
5. Percentiles are defined according to unweighted score_rx percentiles in the combined MA&PDP file

SOURCE: RTI analysis of 2007 PDE, CME, HPMS, Denominator, and RxHCC Files.

Table 6-6
Number of Part D 30-day supplies by beneficiary demographic and health status characteristics—PDP

Variable	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
Total	39.9	37.6	43.7	45.5	42.4	42.4	—
Age							
0-64	38.7	34.5	44.7	46.5	43.5	43.5	—
65-74	35.9	33.3	40.1	42.2	38.6	38.6	—
75-84	42.6	40.6	46.3	47.9	45.1	45.1	—
85+	46.9	45.3	50.1	50.7	49.6	49.6	—
Sex							
Female	41.4	39.3	45.1	46.8	43.9	43.9	—
Male	37.3	34.8	41.5	43.5	40.0	40.0	—
Race/Ethnicity							
White, non-Hispanic	40.3	38.0	44.2	46.1	42.8	42.8	—
Black, non-Hispanic	34.2	32.8	37.1	37.6	36.6	36.6	—
Other, non-Hispanic	31.9	30.3	34.6	37.4	33.0	33.0	—
Hispanic, all races	30.6	28.9	33.9	36.8	32.0	32.0	—
Census Region							
Northeast	40.1	39.0	42.5	41.1	43.8	43.8	—
Midwest	40.3	37.1	45.6	47.3	44.5	44.5	—
South	40.6	38.4	44.0	46.2	42.1	42.1	—
West	37.1	35.0	40.4	44.8	38.5	38.5	—

(continued)

Table 6-6 (continued)
Number of Part D 30-day supplies by beneficiary demographic and health status characteristics—PDP

Variable	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
Urbanicity							
Urban	40.0	38.0	43.8	45.2	42.7	42.7	—
Large Urban	40.1	38.3	43.7	44.7	42.8	42.8	—
Medium Urban	40.0	37.6	44.1	45.2	43.2	43.2	—
Small Urban	39.9	37.3	43.7	46.5	41.9	41.9	—
Rural	39.4	36.8	43.6	46.4	41.7	41.7	—
Rural-adjacent	39.8	37.4	43.7	46.5	41.8	41.8	—
Rural non-adjacent	38.8	35.7	43.3	46.3	41.6	41.6	—
Current Reason for Medicare Entitlement							
Age	39.9	37.8	43.6	45.5	42.3	42.3	—
Disability	38.4	34.2	44.4	46.3	43.2	43.2	—
ESRD	47.4	43.0	53.6	52.4	54.6	54.6	—
Mortality							
Died in 2007	48.3	46.2	51.8	51.7	51.8	51.8	—
Survived 2007	39.6	37.4	43.4	45.3	42.1	42.1	—

(continued)

Table 6-6 (continued)
Number of Part D 30-day supplies by beneficiary demographic and health status characteristics—PDP

Variable	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
RxHCC Risk Score Percentiles							
0-5% (lowest)	10.7	9.7	13.4	14.3	12.8	12.8	—
5-25%	20.5	19.4	22.7	24.8	21.5	21.5	—
25-50%	33.9	33.0	35.6	37.5	34.3	34.3	—
50-75%	44.6	43.2	47.0	48.1	46.2	46.2	—
75-95%	56.5	54.2	59.8	59.7	59.9	59.9	—
95-100% (highest)	69.8	67.0	73.4	72.0	74.5	74.5	—

NOTES:

1. Analytic sample is restricted to Part D beneficiaries meeting the following criteria:
   (a) Continuous Part D enrollment throughout 2007 (or if died, through month of death)
   (b) 12 months of Part A and B during 2006
   (c) No MAPD months in 2007
   (d) No low-income or long-term institutional Part D months in 2007
   (e) No enrollment in Part D employer, cost, or PACE plans in 2007
   (f) No enrollment in Part D plans serving Puerto Rico, Virgin Islands, or Guam in 2007
2. Number of 30-day supplies calculated by first summing total number of days supplied for covered drugs, and then dividing by 30.
3. Number of 30-day supplies are (i) annualized by dividing by the fraction of months in 2007 the beneficiary was enrolled in Part D, and then (ii) weighted by this fraction.
4. RxHCC risk scores for payment year 2007 (2006 diagnoses).
5. Percentiles are defined according to unweighted score_rx percentiles in the combined MA&PDP file

SOURCE: RTI analysis of 2007 PDE, CME, HPMS, Denominator, and RxHCC Files.

Table 6-7
Number of Part D 30-day supplies by beneficiary demographic and health status characteristics—MAPD

Variable	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
Total	34.0	34.7	33.8	33.9	33.5	33.4	35.1
Age							
0-64	36.5	36.3	36.5	36.5	36.6	36.4	43.0
65-74	31.3	31.6	31.2	31.4	30.8	30.7	32.8
75-84	35.7	37.1	35.3	35.3	35.2	35.1	36.6
85+	38.1	40.4	37.6	37.6	37.5	37.6	36.8
Sex							
Female	36.0	36.6	35.9	35.9	35.8	35.7	37.2
Male	31.3	32.1	31.1	31.3	30.7	30.6	32.5
Race/Ethnicity							
White, non-Hispanic	34.5	35.2	34.3	34.5	33.8	33.7	36.1
Black, non-Hispanic	30.6	30.4	30.6	29.8	31.7	31.7	31.6
Other, non-Hispanic	29.5	32.5	28.4	28.1	29.3	29.3	29.6
Hispanic, all races	33.4	34.2	33.3	32.8	34.3	34.5	31.3
Census Region							
Northeast	33.5	31.3	34.3	34.1	36.1	37.3	34.1
Midwest	32.1	33.0	32.0	33.5	30.4	30.4	33.3
South	33.7	29.3	34.3	33.8	34.9	34.9	33.8
West	35.3	38.5	33.9	34.0	33.7	33.4	35.3

(continued)

Table 6-7 (continued)
Number of Part D 30-day supplies by beneficiary demographic and health status characteristics—MAPD

Variable	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
Urbanicity							
Urban	34.2	34.9	34.0	33.9	34.1	34.1	35.2
Large Urban	34.6	35.2	34.5	34.1	35.5	35.4	35.5
Medium Urban	33.1	33.8	32.9	33.5	31.4	31.4	32.0
Small Urban	32.8	34.6	32.2	33.6	30.3	30.3	35.0
Rural	31.3	32.0	31.1	33.5	29.4	29.3	32.8
Rural-adjacent	31.9	32.5	31.7	33.7	29.9	29.8	32.8
Rural non-adjacent	29.4	29.0	29.4	32.4	28.4	28.3	30.7
Current Reason for Medicare Entitlement							
Age	33.8	34.5	33.6	33.7	33.1	33.1	34.6
Disability	36.3	36.0	36.4	36.3	36.5	36.2	42.6
ESRD	51.7	52.5	51.1	52.3	48.9	48.1	60.6
Mortality							
Died in 2007	40.7	43.0	40.1	40.1	40.2	40.2	39.4
Survived 2007	33.8	34.4	33.6	33.7	33.3	33.2	34.9

(continued)

Table 6-7 (continued)
Number of Part D 30-day supplies by beneficiary demographic and health status characteristics—MAPD

Variable	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
RxHCC Risk Score Percentiles							
0-5% (lowest)	8.9	11.3	8.3	8.7	7.3	7.4	7.0
5-25%	18.1	19.6	17.7	18.0	17.0	17.0	16.7
25-50%	30.9	33.0	30.4	30.4	30.4	30.3	31.1
50-75%	41.2	43.5	40.7	40.5	41.1	40.9	44.0
75-95%	52.4	55.0	51.8	51.5	52.5	52.2	58.3
95-100% (highest)	65.2	67.9	64.7	64.4	65.5	64.9	73.8

NOTES:

1. Analytic sample is restricted to Part D beneficiaries meeting the following criteria:
   (a) Continuous Part D enrollment throughout 2007 (or if died, through month of death)
   (b) 12 months of Part A and B during 2006
   (c) No PDP months in 2007
   (d) No low-income or long-term institutional Part D months in 2007
   (e) No enrollment in Part D employer, cost, or PACE plans in 2007
   (f) No enrollment in Part D plans serving Puerto Rico, Virgin Islands, or Guam in 2007
2. Number of 30-day supplies calculated by first summing total number of days supplied for covered drugs, and then dividing by 30.
3. Number of 30-day supplies are (i) annualized by dividing by the fraction of months in 2007 the beneficiary was enrolled in Part D, and then (ii) weighted by this fraction.
4. RxHCC risk scores for payment year 2007 (2006 diagnoses).
5. Percentiles are defined according to unweighted score_rx percentiles in the combined MA&PDP file

SOURCE: RTI analysis of 2007 PDE, CME, HPMS, Denominator, and RxHCC Files.

Table 6-8
Part D total expenditures by RxHCCs

RXHCC Group	Clinical Group	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
Total		1,799	1,764	1,831	1,765	1,916	1,924	1,557
RxHCCs								
Groups	*Labels*							
RXHCC1	HIV/AIDS	14,068	14,621	13,510	13,745	13,235	13,232	13,379
RXHCC2	Opportunistic Infections	3,865	3,815	3,908	3,619	4,241	4,243	3,988
RXHCC3	Infectious Diseases	2,561	2,455	2,660	2,533	2,807	2,814	2,438
RXHCC8	Acute Myeloid Leukemia	5,659	5,049	6,196	5,406	7,124	7,142	5,183
RXHCC9	Metastatic Cancer, Acute Leukemia, and Severe Cancers	4,121	3,912	4,317	3,948	4,781	4,783	4,626
RXHCC10	Lung, Upper Digestive Tract, and Other Severe Cancers	2,129	2,087	2,168	2,094	2,267	2,265	2,374
RXHCC17	Diabetes with Complications	2,866	2,873	2,860	2,738	3,023	3,026	2,910
RXHCC18	Diabetes without Complication	2,271	2,244	2,293	2,191	2,425	2,434	2,041
RXHCC19	Disorders of Lipoid Metabolism	2,070	2,047	2,091	2,015	2,189	2,194	1,966
RXHCC20	Other Significant Endocrine and Metabolic Disorders	2,805	2,754	2,850	2,714	3,017	3,024	2,591
RXHCC21	Other Specified Endocrine/Metabolic/Nutritional Disorders	2,322	2,270	2,372	2,268	2,503	2,509	2,193
RXHCC24	Chronic Viral Hepatitis	3,094	3,099	3,090	3,013	3,191	3,213	2,677
RXHCC31	Chronic Pancreatic Disease	2,771	2,695	2,840	2,634	3,102	3,113	2,401
RXHCC33	Inflammatory Bowel Disease	2,854	2,815	2,888	2,771	3,037	3,035	3,148

(continued)

Table 6-8 (continued)
Part D total expenditures by RxHCCs

RXHCC Group	Clinical Group	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
RXHCC34	Peptic Ulcer and Gastrointestinal Hemorrhage	2,426	2,407	2,443	2,342	2,577	2,579	2,463
RXHCC37	Esophageal Disease	2,373	2,345	2,398	2,297	2,523	2,530	2,199
RXHCC39	Bone/Joint/Muscle Infections/Necrosis	2,792	2,721	2,853	2,669	3,087	3,077	3,567
RXHCC40	Behçet's Syndrome and Other Connective Tissue Disease	2,881	2,711	3,038	2,846	3,276	3,279	3,009
RXHCC41	Rheumatoid Arthritis and Other Inflammatory Polyarthropathy	2,741	2,686	2,788	2,659	2,947	2,941	3,311
RXHCC42	Inflammatory Spondylopathies	2,566	2,475	2,644	2,551	2,751	2,752	2,657
RXHCC43	Polymyalgia Rheumatica	2,313	2,267	2,362	2,244	2,510	2,512	2,200
RXHCC44	Psoriatic Arthropathy	3,524	3,397	3,635	3,530	3,766	3,739	4,938
RXHCC45	Disorders of the Vertebrae and Spinal Discs	2,195	2,126	2,260	2,167	2,374	2,379	2,110
RXHCC47	Osteoporosis and Vertebral Fractures	2,265	2,243	2,286	2,172	2,437	2,444	2,131
RXHCC48	Other Musculoskeletal and Connective Tissue Disorders	1,973	1,941	2,002	1,928	2,098	2,104	1,806
RXHCC51	Severe Hematological Disorders	3,449	3,320	3,572	3,343	3,857	3,850	4,378
RXHCC52	Disorders of Immunity	4,039	3,816	4,237	4,068	4,422	4,423	4,369
RXHCC54	Polycythemia Vera	2,159	2,146	2,170	2,125	2,227	2,232	1,901
RXHCC55	Coagulation Defects and Other Specified Blood Diseases	2,598	2,539	2,654	2,515	2,832	2,835	2,669
RXHCC57	Delirium and Encephalopathy	3,380	3,317	3,437	3,239	3,680	3,682	3,524
RXHCC59	Dementia with Depression or Behavioral Disturbance	4,099	4,101	4,096	3,895	4,328	4,363	3,009

(continued)

Table 6-8 (continued)
Part D total expenditures by RxHCCs

RXHCC	Clinical Group	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
RXHCC60	Dementia/Cerebral Degeneration	3,083	3,067	3,096	2,930	3,309	3,320	2,696
RXHCC65	Schizophrenia	3,647	3,658	3,638	3,538	3,732	3,735	3,447
RXHCC66	Other Major Psychiatric Disorders	2,623	2,584	2,654	2,526	2,810	2,818	2,409
RXHCC67	Other Psychiatric Symptoms/Syndromes	2,471	2,417	2,520	2,391	2,673	2,686	2,162
RXHCC75	Attention Deficit Disorder	3,151	2,964	3,304	3,082	3,542	3,541	3,611
RXHCC76	Motor Neuron Disease and Spinal Muscular Atrophy	2,938	2,629	3,207	3,021	3,450	3,464	2,547
RXHCC77	Quadriplegia, Other Extensive Paralysis, and Spinal Cord Injuries	2,985	2,917	3,042	2,846	3,283	3,292	2,912
RXHCC78	Muscular Dystrophy	2,369	2,362	2,375	2,211	2,580	2,599	1,810
RXHCC79	Polyneuropathy, except Diabetic	2,802	2,724	2,867	2,713	3,058	3,063	2,747
RXHCC80	Multiple Sclerosis	4,776	4,621	4,893	4,769	5,043	5,051	4,623
RXHCC81	Parkinson's Disease	3,509	3,451	3,556	3,340	3,816	3,827	3,089
RXHCC82	Huntington's Disease	3,264	3,198	3,319	3,180	3,482	3,480	3,724
RXHCC83	Seizure Disorders and Convulsions	2,999	2,931	3,058	2,930	3,218	3,227	2,802
RXHCC85	Migraine Headaches	2,566	2,410	2,700	2,533	2,901	2,908	2,535
RXHCC86	Mononeuropathy, Other Abnormal Movement Disorders	2,630	2,540	2,712	2,575	2,878	2,886	2,360
RXHCC87	Other Neurological Conditions/Injuries	2,287	2,214	2,355	2,250	2,484	2,489	2,198
RXHCC91	Congestive Heart Failure	2,775	2,741	2,805	2,670	2,982	2,986	2,794
RXHCC92	Acute Myocardial Infarction and Unstable Angina	2,488	2,468	2,505	2,396	2,652	2,656	2,425

(continued)

Table 6-8 (continued)
Part D total expenditures by RxHCCs

RXHCC	Clinical Group	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
RXHCC98	Hypertensive Heart Disease or Hypertension	1,938	1,916	1,958	1,887	2,052	2,058	1,763
RXHCC99	Specified Heart Arrhythmias	2,419	2,380	2,457	2,346	2,605	2,610	2,327
RXHCC102	Cerebral Hemorrhage and Effects of Stroke	2,531	2,512	2,548	2,428	2,710	2,718	2,347
RXHCC105	Pulmonary Embolism and Deep Vein Thrombosis	2,711	2,671	2,747	2,612	2,926	2,932	2,663
RXHCC106	Vascular Disease	2,523	2,521	2,525	2,412	2,676	2,682	2,390
RXHCC108	Cystic Fibrosis	2,882	2,670	3,062	2,735	3,611	3,680	1,454
RXHCC109	Asthma and COPD	2,533	2,540	2,527	2,421	2,665	2,673	2,343
RXHCC110	Fibrosis of Lung and Other Chronic Lung Disorders	2,458	2,404	2,505	2,315	2,757	2,758	2,627
RXHCC111	Aspiration and Specified Bacterial Pneumonias	3,245	3,182	3,301	3,074	3,593	3,603	3,031
RXHCC112	Empyema, Lung Abscess, and Fungal and Parasitic Lung Infections	2,748	2,805	2,706	2,503	3,007	3,024	2,273
RXHCC113	Acute Bronchitis and Congenital Lung/Respiratory Anomaly	1,962	1,915	2,005	1,935	2,091	2,096	1,827
RXHCC120	Vitreous/Retinal Hemorrhage and Vascular Retinopathy except Diabetic	2,341	2,284	2,398	2,300	2,528	2,533	2,307
RXHCC121	Macular Degeneration and Retinal Disorders, Except Detachment and Vascular Retinopathies	2,027	1,978	2,082	2,003	2,182	2,188	1,866
RXHCC122	Open-angle Glaucoma	2,280	2,256	2,304	2,201	2,444	2,449	2,226
RXHCC123	Glaucoma and Keratoconus	2,133	2,121	2,144	2,054	2,270	2,274	2,093

(continued)

Table 6-8 (continued)
Part D total expenditures by RxHCCs

RXHCC	Clinical Group	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
RXHCC126	Larynx/Vocal Cord Diseases	2,267	2,225	2,309	2,215	2,429	2,434	2,067
RXHCC129	Other Diseases of Upper Respiratory System	2,185	2,149	2,219	2,133	2,325	2,332	1,991
RXHCC130	Salivary Gland Diseases	2,392	2,309	2,472	2,352	2,614	2,620	2,194
RXHCC132	Kidney Transplant Status	3,842	3,563	4,097	4,273	3,934	3,898	7,865
RXHCC134	Chronic Renal Failure	3,053	3,089	3,024	2,897	3,188	3,193	2,943
RXHCC135	Nephritis	2,578	2,614	2,558	2,554	2,562	2,547	2,952
RXHCC137	Urinary Obstruction and Retention	2,279	2,223	2,331	2,230	2,464	2,468	2,248
RXHCC138	Fecal Incontinence	2,484	2,407	2,560	2,412	2,747	2,760	1,816
RXHCC139	Incontinence	2,529	2,481	2,573	2,433	2,751	2,760	2,317
RXHCC140	Impaired Renal Function and Other Urinary Disorders	2,331	2,295	2,363	2,255	2,505	2,513	2,156
RXHCC144	Vaginal and Cervical Diseases	2,128	2,088	2,169	2,092	2,264	2,266	2,140
RXHCC145	Female Stress Incontinence	2,294	2,240	2,349	2,266	2,453	2,456	2,281
RXHCC157	Chronic Ulcer of Skin, Except Decubitus	2,750	2,682	2,816	2,654	3,020	3,027	2,647
RXHCC158	Psoriasis	2,425	2,391	2,457	2,362	2,578	2,576	2,694
RXHCC159	Cellulitis and Local Skin Infection	2,424	2,371	2,476	2,345	2,642	2,648	2,320
RXHCC160	Bullous Dermatoses and Other Specified Erythematous Conditions	1,885	1,825	1,949	1,892	2,017	2,020	1,791
RXHCC165	Vertebral Fractures without Spinal Cord Injury	2,868	2,827	2,906	2,703	3,161	3,170	2,591
RXHCC166	Pelvic Fracture	2,726	2,696	2,755	2,587	2,975	2,979	2,760

(continued)

Table 6-8 (continued)
Part D total expenditures by RxHCCs

RXHCC Group	Clinical Group	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
RXHCC186	Major Organ Transplant Status	5,550	5,095	5,882	5,830	5,935	5,914	7,614
RXHCC187	Other Organ Transplant/Replacement	2,338	2,285	2,392	2,256	2,564	2,564	2,534

NOTES:

1. Analytic sample is restricted to Part D beneficiaries meeting the following criteria:
   (a) Continuous Part D enrollment throughout 2007 (or if died, through month of death)
   (b) 12 months of Part A and B during 2006
   (c) No switching between PDP and MAPD plans in 2007
   (d) No low-income or long-term institutional Part D months in 2007
   (e) No enrollment in Part D employer, cost, or PACE plans in 2007
   (f) No enrollment in Part D plans serving Puerto Rico, Virgin Islands, or Guam in 2007
2. Total expenditures include amount paid for covered Part D drugs, regardless of payer.
3. Total expenditures are (i) annualized by dividing by the fraction of months in 2007 the beneficiary was enrolled in Part D, and then (ii) weighted by this fraction.
4. RxHCCs based on payment year 2007 (2006 diagnoses).

SOURCE: RTI analysis of 2007 PDE, CME, HPMS, Denominator, and RxHCC Files.

Table 6-9 repeats this analysis measuring the number of Part D 30-day supplies by RxHCC category. Findings follow the expenditure patterns. Across all RxHCC disease categories (with a few exception, e.g., RxHCC 1 – HIV/AIDs), enrollees in demonstration enhanced plans had higher utilization rates compared to non-demonstration enhanced enrollees. Further, across all RxHCC disease categories (with a couple of exceptions, e.g., RxHCC135 – Nephritis), enrollees in enhanced plans had higher utilization rates compared to non-enhanced enrollees.

Taken together, the RxHCC disease categories analyses suggest that the observed trend of higher overall expenditures and utilization observed for all Part D enrollees in demonstration enhanced plans, compared to non-demonstration enhanced plans, are also found for the subset of beneficiaries most likely to consume prescription drugs on a regular basis. Their differences, however, were not substantively large in most categories. Again, the expected finding that beneficiaries enrolled in enhanced plans would have higher expenditures and utilization than beneficiaries enrolled in non-enhanced plans is supported.

6.2.5 Prescription Drug Expenditures and Utilization by Drug Classification

The last set of descriptive analyses examine Part D drug expenditures and 30-day supply utilization by drug classifications. Comparing expenditures and utilization by drug class can indicate whether there were any persistent differences between plan benefit types for beneficiaries with known utilization in a drug class. In addition, substantive plan type differences, shown in under or over emphasis on different classes of drugs, may signal potential enrollee access issues.

Table 6-10 shows annualized expenditures by the broadest AHFS drug classes. In general, the data does not show large substantive differences between plan types for expenditures in most drug classes. Annualized expenditures in most, but not all, drug classes were larger on average for enhanced compared to non-enhanced plans. For example, for AHFS drug class 24:00:00 (Cardiovascular Drugs), enhanced plans had total expenditures of $2,127, compared to $2,084 for non-enhanced plans. Across all AHFS drug classifications, annualized expenditures for enrollees in demonstration enhanced plans are higher than in non-demonstration enhanced plans. Although these differences were generally not substantially large, there were some drug classes where these differences were quite large. For example, annualized expenditures for enrollees in demonstration enhanced plans were $3,291 for AHFS drug class 48:00:00 (Respiratory Tract Agents), compared to $2,674 for enrollees non-demonstration enhanced plans.

Table 6-11 presents utilization of 30-day prescription supplies by plan benefit type and AHFS drug class. Similar to the expenditure analysis, utilization rates for demonstration enhanced plan enrollees were higher for all drug classes compared to non-demonstration enhanced plan enrollees, and utilization rates for enhanced plan enrollees were higher for most drug classes compared to non-enhanced plan enrollees.

Table 6-9
Number of Part D 30-day supplies by RxHCCs

RXHCC Group	Clinical Group	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
Total		37.8	37.2	38.3	37.9	38.9	39.0	35.1
RxHCCs								
Groups	*Labels*							
RXHCC1	HIV/AIDS	54.9	54.3	55.4	56.1	54.6	54.7	47.9
RXHCC2	Opportunistic Infections	52.5	51.2	53.6	51.6	55.9	56.0	50.3
RXHCC3	Infectious Diseases	46.8	45.3	48.2	47.2	49.4	49.3	50.0
RXHCC8	Acute Myeloid Leukemia	46.2	44.3	47.9	45.7	50.6	50.8	31.7
RXHCC9	Metastatic Cancer, Acute Leukemia, and Severe Cancers	41.1	40.1	42.0	41.3	42.8	42.9	40.3
RXHCC10	Lung, Upper Digestive Tract, and Other Severe Cancers	40.0	39.1	40.7	40.1	41.6	41.6	41.0
RXHCC17	Diabetes with Complications	61.5	61.2	61.7	60.3	63.6	63.6	63.2
RXHCC18	Diabetes without Complication	51.0	50.4	51.4	50.5	52.7	52.7	50.1
RXHCC19	Disorders of Lipoid Metabolism	44.2	43.5	44.8	44.2	45.7	45.7	46.1
RXHCC20	Other Significant Endocrine and Metabolic Disorders	49.6	48.4	50.7	49.8	51.9	51.9	49.9
RXHCC21	Other Specified Endocrine/Metabolic/Nutritional Disorders	50.0	49.0	50.9	50.0	51.9	51.9	51.4
RXHCC24	Chronic Viral Hepatitis	40.1	39.4	40.7	39.7	42.0	42.0	44.1
RXHCC31	Chronic Pancreatic Disease	47.3	46.2	48.4	46.9	50.3	50.3	47.0
RXHCC33	Inflammatory Bowel Disease	46.4	45.4	47.3	46.5	48.3	48.3	50.7

(continued)

Table 6-9 (continued)
Number of Part D 30-day supplies by RxHCCs

RXHCC Group	Clinical Group	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
RXHCC34	Peptic Ulcer and Gastrointestinal Hemorrhage	46.7	45.9	47.5	46.6	48.7	48.7	47.4
RXHCC37	Esophageal Disease	45.9	45.0	46.7	45.8	47.8	47.8	48.4
RXHCC39	Bone/Joint/Muscle Infections/Necrosis	50.8	49.2	52.2	50.6	54.3	54.3	53.7
RXHCC40	Behçet's Syndrome and Other Connective Tissue Disease	52.2	50.4	53.9	52.6	55.5	55.5	54.4
RXHCC41	Rheumatoid Arthritis and Other Inflammatory Polyarthropathy	52.1	51.4	52.7	51.7	54.0	54.0	53.3
RXHCC42	Inflammatory Spondylopathies	49.1	47.3	50.6	50.0	51.3	51.3	53.7
RXHCC43	Polymyalgia Rheumatica	51.4	50.5	52.4	51.0	54.2	54.2	50.8
RXHCC44	Psoriatic Arthropathy	52.8	51.3	54.1	53.1	55.4	55.3	56.4
RXHCC45	Disorders of the Vertebrae and Spinal Discs	44.7	43.4	45.8	45.2	46.6	46.6	46.4
RXHCC47	Osteoporosis and Vertebral Fractures	42.5	42.1	43.0	42.0	44.3	44.4	43.0
RXHCC48	Other Musculoskeletal and Connective Tissue Disorders	41.3	40.6	41.9	41.4	42.6	42.6	41.2
RXHCC51	Severe Hematological Disorders	48.0	47.2	48.8	47.8	50.0	50.0	52.9
RXHCC52	Disorders of Immunity	54.0	51.8	56.0	54.1	58.0	57.9	63.0
RXHCC54	Polycythemia Vera	43.5	42.9	44.1	43.6	44.7	44.6	45.8
RXHCC55	Coagulation Defects and Other Specified Blood Diseases	52.5	51.5	53.5	52.5	54.7	54.8	51.0
RXHCC57	Delirium and Encephalopathy	55.2	54.2	56.0	54.6	57.8	57.8	58.4
RXHCC59	Dementia with Depression or Behavioral Disturbance	57.9	57.9	58.0	56.1	60.3	60.6	47.9

(continued)

Table 6-9 (continued)
Number of Part D 30-day supplies by RxHCCs

RXHCC Group	Clinical Group	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
RXHCC60	Dementia/Cerebral Degeneration	50.1	49.9	50.3	48.8	52.2	52.3	47.0
RXHCC65	Schizophrenia	43.1	41.3	44.8	45.4	44.2	44.2	42.0
RXHCC66	Other Major Psychiatric Disorders	48.9	48.0	49.7	48.7	50.9	50.9	50.8
RXHCC67	Other Psychiatric Symptoms/Syndromes	46.0	45.2	46.8	46.0	47.7	47.7	44.5
RXHCC75	Attention Deficit Disorder	45.6	43.1	47.6	47.4	47.9	47.8	54.3
RXHCC76	Motor Neuron Disease and Spinal Muscular Atrophy	44.5	43.1	45.7	44.8	46.8	47.0	34.7
RXHCC77	Quadriplegia, Other Extensive Paralysis, and Spinal Cord Injuries	47.5	46.4	48.4	47.2	49.9	50.0	47.1
RXHCC78	Muscular Dystrophy	40.9	40.7	41.1	42.2	39.7	39.6	44.3
RXHCC79	Polyneuropathy, except Diabetic	52.8	51.3	54.0	52.7	55.6	55.6	56.5
RXHCC80	Multiple Sclerosis	44.7	43.2	45.9	45.4	46.5	46.5	49.7
RXHCC81	Parkinson's Disease	54.7	53.9	55.4	53.5	57.7	57.7	53.3
RXHCC82	Huntington's Disease	50.3	49.5	51.0	50.5	51.5	51.5	58.6
RXHCC83	Seizure Disorders and Convulsions	50.0	48.9	50.9	49.9	52.1	52.2	48.3
RXHCC85	Migraine Headaches	44.5	42.4	46.4	45.3	47.7	47.6	48.9
RXHCC86	Mononeuropathy, Other Abnormal Movement Disorders	49.7	48.2	51.0	50.0	52.3	52.3	50.2
RXHCC87	Other Neurological Conditions/Injuries	45.0	43.8	46.2	45.4	47.1	47.1	46.9
RXHCC91	Congestive Heart Failure	59.8	58.9	60.6	59.1	62.5	62.5	60.4
RXHCC92	Acute Myocardial Infarction and Unstable Angina	52.6	51.8	53.2	52.0	54.9	54.9	53.8

(continued)

Table 6-9 (continued)
Number of Part D 30-day supplies by RxHCCs

RXHCC Group	Clinical Group	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
RXHCC98	Hypertensive Heart Disease or Hypertension	42.9	42.5	43.4	42.7	44.2	44.3	42.8
RXHCC99	Specified Heart Arrhythmias	56.5	55.7	57.3	56.2	58.8	58.8	57.5
RXHCC102	Cerebral Hemorrhage and Effects of Stroke	50.5	49.7	51.1	49.8	52.8	52.9	50.0
RXHCC105	Pulmonary Embolism and Deep Vein Thrombosis	51.8	50.7	52.8	51.8	54.1	54.2	51.0
RXHCC106	Vascular Disease	51.5	50.8	52.1	50.7	53.9	54.0	51.5
RXHCC108	Cystic Fibrosis	44.1	44.0	44.2	43.4	45.5	45.3	51.0
RXHCC109	Asthma and COPD	47.9	47.5	48.3	47.2	49.8	49.8	48.2
RXHCC110	Fibrosis of Lung and Other Chronic Lung Disorders	44.6	43.8	45.3	44.1	46.8	46.9	42.9
RXHCC111	Aspiration and Specified Bacterial Pneumonias	55.2	53.9	56.4	54.6	58.8	58.9	51.7
RXHCC112	Empyema, Lung Abscess, and Fungal and Parasitic Lung Infections	45.9	46.0	45.7	45.0	46.7	46.9	40.6
RXHCC113	Acute Bronchitis and Congenital Lung/Respiratory Anomaly	41.2	40.4	41.9	41.6	42.3	42.3	39.9
RXHCC120	Vitreous/Retinal Hemorrhage and Vascular Retinopathy except Diabetic	47.9	46.8	49.1	48.1	50.4	50.4	48.1
RXHCC121	Macular Degeneration and Retinal Disorders, Except Detachment and Vascular Retinopathies	43.0	42.1	44.0	43.4	44.7	44.8	43.6
RXHCC122	Open-angle Glaucoma	46.7	46.0	47.5	46.5	48.8	48.8	47.6
RXHCC123	Glaucoma and Keratoconus	44.1	43.6	44.6	43.4	46.3	46.3	44.2

(continued)

Table 6-9 (continued)
Number of Part D 30-day supplies by RxHCCs

RXHCC Group	Clinical Group	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
RXHCC126	Larynx/Vocal Cord Diseases	42.3	41.4	43.2	42.2	44.6	44.6	41.2
RXHCC129	Other Diseases of Upper Respiratory System	42.6	41.7	43.4	42.7	44.2	44.2	43.7
RXHCC130	Salivary Gland Diseases	46.0	44.6	47.4	46.4	48.5	48.5	44.8
RXHCC132	Kidney Transplant Status	60.3	56.1	64.2	63.9	64.4	64.3	74.3
RXHCC134	Chronic Renal Failure	60.2	59.8	60.6	59.3	62.2	62.3	58.2
RXHCC135	Nephritis	60.3	61.6	59.6	58.4	60.9	60.6	68.7
RXHCC137	Urinary Obstruction and Retention	43.6	42.5	44.6	43.7	45.7	45.7	43.0
RXHCC138	Fecal Incontinence	47.4	46.3	48.4	47.0	50.1	50.3	40.0
RXHCC139	Incontinence	48.5	47.5	49.4	48.2	51.0	51.0	48.8
RXHCC140	Impaired Renal Function and Other Urinary Disorders	47.6	47.0	48.3	47.3	49.6	49.6	48.0
RXHCC144	Vaginal and Cervical Diseases	42.1	41.1	43.0	42.4	43.8	43.8	43.3
RXHCC145	Female Stress Incontinence	46.5	45.3	47.6	47.1	48.3	48.3	49.2
RXHCC157	Chronic Ulcer of Skin, Except Decubitus	54.1	52.6	55.6	53.9	57.7	57.8	55.0
RXHCC158	Psoriasis	43.5	42.7	44.3	43.5	45.2	45.2	47.8
RXHCC159	Cellulitis and Local Skin Infection	47.9	46.7	49.0	47.9	50.3	50.4	46.9
RXHCC160	Bullous Dermatoses and Other Specified Erythematous Conditions	38.9	37.8	40.0	39.8	40.3	40.3	40.7
RXHCC165	Vertebral Fractures without Spinal Cord Injury	50.3	49.8	50.8	49.5	52.5	52.6	45.4
RXHCC166	Pelvic Fracture	50.2	49.8	50.7	49.0	53.0	53.0	50.9

(continued)

Table 6-9 (continued)
Number of Part D 30-day supplies by RxHCCs

RXHCC Group	Clinical Group	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
RXHCC186	Major Organ Transplant Status	56.5	53.5	58.8	58.3	59.4	59.2	71.3
RXHCC187	Other Organ Transplant/Replacement	48.0	47.3	48.7	48.1	49.5	49.4	56.1

NOTES:

1. Analytic sample is restricted to Part D beneficiaries meeting the following criteria:
   (a) Continuous Part D enrollment throughout 2007 (or if died, through month of death)
   (b) 12 months of Part A and B during 2006
   (c) No switching between PDP and MAPD plans in 2007
   (d) No low-income or long-term institutional Part D months in 2007
   (e) No enrollment in Part D employer, cost, or PACE plans in 2007
   (f) No enrollment in Part D plans serving Puerto Rico, Virgin Islands, or Guam in 2007
2. Number of 30-day supplies calculated by first summing total number of days supplied for covered drugs, and then dividing by 30.
3. Number of 30-day supplies are (i) annualized by dividing by the fraction of months in 2007 the beneficiary was enrolled in Part D, and then (ii) weighted by this fraction.
4. RxHCCs based on payment year 2007 (2006 diagnoses).

SOURCE: RTI analysis of 2007 PDE, CME, HPMS, Denominator, and RxHCC Files.

Table 6-10
Part D total expenditures by AHFS drug classifications

AHFS Drug Class	Drug Description	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
Total		1,799	1,764	1,831	1,765	1,916	1,924	1,557
AHFS Classes								
Number	*Description*							
4:00	Antihistamine Drugs	2,734	2,684	2,780	2,682	2,887	2,893	2,519
8:00	Anti-infective Agents	2,198	2,166	2,226	2,148	2,324	2,328	2,083
10:00	Antineoplastic Agents	3,727	3,672	3,775	3,611	3,979	3,970	4,413
12:00	Autonomic Drugs	2,813	2,797	2,826	2,726	2,948	2,957	2,562
16:00	Blood Derivatives	—	—	—	—	—	—	—
20:00	Blood Formation, Coagulation, and Thrombosis Agents	2,916	2,864	2,962	2,854	3,097	3,097	3,115
24:00:00	Cardiovascular Drugs	2,106	2,084	2,127	2,053	2,223	2,229	1,948
28:00:00	Central Nervous System Agents	2,319	2,297	2,338	2,249	2,449	2,456	2,107
32:00:00	Contraceptives (foams, devices)	—	—	—	—	—	—	—
34:00:00	Dental Agents	—	—	—	—	—	—	—
36:00:00	Diagnostic Agents	2,247	2,540	2,239	2,163	2,996	3,186	2,811
38:00:00	Disinfectants (for agents used on objects other than skin)	—	—	—	—	—	—	—
40:00:00	Electrolytic, Caloric, and Water Balance	2,359	2,305	2,407	2,308	2,534	2,539	2,309
44:00:00	Enzymes	—	—	—	—	—	—	—
48:00:00	Respiratory Tract Agents	3,000	3,117	2,913	2,674	3,291	3,307	2,660
52:00:00	Eye, Ear, Nose, and Throat (EENT) Preparations	2,342	2,307	2,374	2,270	2,509	2,515	2,192
56:00:00	Gastrointestinal Drugs	2,627	2,608	2,644	2,534	2,779	2,788	2,373
60:00:00	Gold Compounds	—	—	—	—	—	—	—
64:00:00	Heavy Metal Antagonists	—	—	—	—	—	—	—
68:00:00	Hormones and Synthetic Substitutes	2,393	2,347	2,434	2,346	2,544	2,548	2,330

(continued)

Table 6-10 (continued)
Part D total expenditures by AHFS drug classifications

AHFS Drug Class	Drug Description	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
72:00:00	Local Anesthetics	—	—	—	—	—	—	—
76:00:00	Oxytocics	—	—	—	—	—	—	—
78:00:00	Radioactive Agents	—	—	—	—	—	—	—
80:00:00	Serums, Toxoids, and Vaccines	1,894	1,837	1,945	1,760	2,265	2,400	1,702
84:00:00	Skin and Mucous Membrane Agents	2,383	2,360	2,404	2,297	2,541	2,548	2,206
86:00:00	Smooth Muscle Relaxants	3,037	3,014	3,058	2,895	3,259	3,269	2,718
88:00:00	Vitamins	3,269	3,404	3,144	2,809	3,890	3,923	3,116
92:00:00	Miscellaneous Therapeutic Agents	2,692	2,644	2,736	2,613	2,894	2,900	2,610
94:00:00	Devices	3,800	3,920	3,719	3,429	4,122	4,148	3,374
96:00:00	Pharmaceutical Aids	3,126	3,012	3,270	3,103	3,487	3,432	7,349

NOTES:

1. Analytic sample is restricted to Part D beneficiaries meeting the following criteria:
   (a) Continuous Part D enrollment throughout 2007 (or if died, through month of death)
   (b) 12 months of Part A and B during 2006
   (c) No switching between PDP and MAPD plans in 2007
   (d) No low-income or long-term institutional Part D months in 2007
   (e) No enrollment in Part D employer, cost, or PACE plans in 2007
   (f) No enrollment in Part D plans serving Puerto Rico, Virgin Islands, or Guam in 2007
2. Total expenditures include amount paid for covered Part D drugs, regardless of payer.
3. Total expenditures are (i) annualized by dividing by the fraction of months in 2007 the beneficiary was enrolled in Part D, and then (ii) weighted by this fraction.
4. Drug classifications based on AHFS drug classification system. If total observations for drug class <10,000, cells for that drug class left blank.

SOURCE: RTI analysis of 2007 PDE, CME, HPMS, Denominator, and RxHCC Files.

Table 6-11
Number of Part D 30-day supplies by AHFS drug classifications

AHFS Drug Class	Drug Description	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
Total		37.8	37.2	38.3	37.9	38.9	39.0	35.1
AHFS Classes								
Number	*Description*							
4:00	Antihistamine Drugs	50.6	49.6	51.6	51.0	52.2	52.2	50.3
8:00	Anti-infective Agents	44.0	43.4	44.5	44.0	45.1	45.1	43.7
10:00	Antineoplastic Agents	51.3	50.8	51.7	50.7	53.0	53.1	51.2
12:00	Autonomic Drugs	50.5	49.9	51.0	50.2	51.9	51.9	50.8
16:00	Blood Derivatives	48.1	39.9	62.5	—	—	—	—
20:00	Blood Formation, Coagulation, and Thrombosis Agents	59.7	58.9	60.5	59.6	61.6	61.6	62.1
24:00:00	Cardiovascular Drugs	46.2	45.8	46.6	46.1	47.3	47.3	46.1
28:00:00	Central Nervous System Agents	46.5	46.1	46.9	46.3	47.6	47.6	45.7
32:00:00	Contraceptives (foams, devices)	41.2	38.4	46.3	43.6	62.3	62.3	—
34:00:00	Dental Agents	45.2	45.0	45.5	43.8	46.6	46.6	43.2
36:00:00	Diagnostic Agents	55.0	56.0	54.9	54.2	62.7	65.9	59.6
38:00:00	Disinfectants (for agents used on objects other than skin)	41.5	40.7	42.7	41.3	43.5	43.5	—
40:00:00	Electrolytic, Caloric, and Water Balance	56.1	55.3	56.8	56.1	57.7	57.7	57.1
44:00:00	Enzymes	59.5	55.6	62.6	62.0	63.3	63.6	56.0
48:00:00	Respiratory Tract Agents	52.8	53.1	52.7	50.3	56.4	56.5	50.9
52:00:00	Eye, Ear, Nose, and Throat (EENT) Preparations	46.4	45.7	47.1	46.2	48.1	48.2	45.8
56:00:00	Gastrointestinal Drugs	50.7	50.1	51.2	50.3	52.3	52.3	50.2
60:00:00	Gold Compounds	57.0	56.6	57.3	56.4	58.3	58.3	—
64:00:00	Heavy Metal Antagonists	50.8	48.2	53.2	52.3	54.1	54.1	—

(continued)

Table 6-11 (continued)
Number of Part D 30-day supplies by AHFS drug classifications

AHFS Drug Class	Drug Description	Overall	Non-enhanced	All enhanced	Enhanced non-demo	Enhanced—demo—All demo	Enhanced—demo—Flexible	Enhanced—demo—Fixed
68:00:00	Hormones and Synthetic Substitutes	51.1	50.2	51.8	51.3	52.4	52.4	52.5
72:00:00	Local Anesthetics	63.7	61.9	65.5	60.7	70.0	70.1	59.1
76:00:00	Oxytocics	47.1	42.7	50.3	44.6	58.6	58.9	52.6
78:00:00	Radioactive Agents	—	—	—	—	—	—	—
80:00:00	Serums, Toxoids, and Vaccines	39.7	39.4	40.0	38.4	42.7	43.1	41.0
84:00:00	Skin and Mucous Membrane Agents	46.4	45.7	47.0	46.2	48.1	48.2	46.3
86:00:00	Smooth Muscle Relaxants	56.7	55.8	57.5	56.0	59.3	59.3	57.7
88:00:00	Vitamins	63.6	65.0	62.4	58.7	70.7	71.1	62.7
92:00:00	Miscellaneous Therapeutic Agents	49.9	49.2	50.5	49.5	51.8	51.8	50.6
94:00:00	Devices	71.1	71.9	70.5	67.5	74.6	74.9	68.0
96:00:00	Pharmaceutical Aids	49.2	48.3	50.3	49.6	51.2	51.3	47.1

NOTES:

1. Analytic sample is restricted to Part D beneficiaries meeting the following criteria:
   (a) Continuous Part D enrollment throughout 2007 (or if died, through month of death)
   (b) 12 months of Part A and B during 2006
   (c) No switching between PDP and MAPD plans in 2007
   (d) No low-income or long-term institutional Part D months in 2007
   (e) No enrollment in Part D employer, cost, or PACE plans in 2007
   (f) No enrollment in Part D plans serving Puerto Rico, Virgin Islands, or Guam in 2007
2. Number of 30-day supplies calculated by first summing total number of days supplied for covered drugs, and then dividing by 30.
3. Number of 30-day supplies are (i) annualized by dividing by the fraction of months in 2007 the beneficiary was enrolled in Part D, and then (ii) weighted by this fraction.
4. Drug classifications based on AHFS drug classification system. If total observations for drug class <10,000, cells for that drug class left blank.

SOURCE: RTI analysis of 2007 PDE, CME, HPMS, Denominator, and RxHCC Files.

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6.2.6 Summary of Descriptive Analyses

The analyses presented in this descriptive section suggest that, as a whole, enrollees in demonstration enhanced plans have higher average annualized Part D expenditures and utilize a higher average annual number of 30-day supplies of prescription drugs compared to their non-demonstration enhanced plan enrollees. In addition, the same pattern generally holds for enhanced and non-enhanced plan enrollees, with enhanced plan enrollees having higher expenditures and utilization. These findings generally persist within most beneficiary characteristic groups, and across RxHCC disease categories and AHFS drug classes.

These average findings, however, for the combined sample PDP and MAPD enrollees mask different results when expenditures and utilization are analyzed separately for PDP and MAPD enrollees. In the separate analyses for PDPs and MAPDs, enrollees in non-demonstration enhanced plans had higher expenditures and utilization. While there was slightly more variation among population subgroups, the trend was persistent for both PDP and MAPDs. The difference in findings between the combined sample, and the two subgroups (PDP and MAPD), which initially might appear to be counterintuitive, is actually caused by the difference in distributions of enrollees in demonstration versus non-demonstration enhanced plans. Only about one-third of enrollees in non-demonstration enhanced plans elected a PDP, whereas about two-thirds of demonstration enhanced plans enrollees are in PDP. This large difference in distributions explains why the findings for the subgroups are different than for the total group.

6.3 Multivariate Analysis of Expenditures and Utilization

In this section, we use a multivariate regression framework to analyze the factors determining Part D expenditures and utilization. Importantly, we aim to determine whether enrollment in enhanced plans – including reinsurance demonstration versus non-demonstration enhanced plans – is associated with induced demand for Part D covered drugs. In the multivariate regression models we control for beneficiary characteristics, geographic area of residence, the Rx-HCC risk score, and medical plan characteristics. The models also include an indicator variable for enrollment in an enhanced plan. Other things equal, if enhanced drug coverage causes higher expenditures and utilization for covered drugs (induced demand), then the coefficient on the enhanced plan indicator would be positive. Note that this coefficient is the "main effect" for having enhanced coverage. The model also includes an indicator variable for enrollment in a demonstration enhanced plan. The coefficient on the demonstration enhanced plan indicator is the additional "marginal effect" of having demonstration enhanced coverage, and would be positive if demonstration enhanced coverage had a higher impact on expenditures and utilization than did non-demonstration enhanced coverage. The goal of this analysis is to determine whether (1) enrollment in any enhanced plan had an impact on Part D expenditures and utilization, and (2) in particular, whether enrollment in a reinsurance demonstration enhanced plan had any impact on Part D expenditures and utilization beyond an effect attributable to enhanced plans in general.

6.3.1 Expenditures Regression

Table 6-12 presents the regression model results for factors determining Part D total expenditures. The dependent variable in the model is 2007 annualized total expenditures for the beneficiary, weighted by the eligibility fraction. Because beneficiaries receiving the Part D low-income subsidy are generally auto-enrolled in non-enhanced plans, these beneficiaries are excluded from the analysis sample (see Chapter 2 for details on the methodology). The explanatory variables for the multivariate models are all categorical. The control variables include age (reference group age 85+), sex (reference group male), race (reference group other and Hispanic), current reason for Medicare entitlement (reference group aged and disabled), urbanicity (reference group rural), census region (reference group west), and RxHCC risk score (reference group 0-5% percentile).

Finally, the models include indicator variables for enhanced plan enrollment, and demonstration enhanced plan enrollment. We hypothesize that other things equal, the plan benefit structure of enhanced plans will cause an induced demand for beneficiary utilization of covered drugs (Gilman and Kautter, 2008). Further, to the extent that the plan benefit structure of demonstration enhanced plans is different than for non-demonstration enhanced plans, there will be an additional impact of being enrolled in a demonstration enhanced plan. As discussed in Greenwald et al. (2008), all enhanced plans tended to offer lower cost sharing compared to non-enhanced plans on many of the cost-sharing measures—particularly initial deductible and coverage limits. Demonstration enhanced plans were slightly more likely to eliminate the deductible completely than non-demonstration enhanced plans, and also offered higher initial coverage levels (particularly the MAPDs). In addition, many enhanced plans offered gap coverage, which by design non-enhanced plans do not offer. In general, demonstration enhanced plans were more likely to offer some type of gap coverage than non-demonstration enhanced plans (particularly the PDPs).

Table 6-12 provides point estimates for coefficients, along with the corresponding t-ratios. The sample size is 10,968,984, the sample mean annualized Part D total expenditures is $1,799, and the R-Squared is 0.1243. Given the large sample size for the model, almost all estimated coefficients are statistically significant. Compared to the reference group of older beneficiaries (age 85+), the younger elderly have lower expenditures (by $115 for age 65-74, and by $113 for age 75-84), which might be explained because of poorer health status among the oldest beneficiaries. However, younger beneficiaries (age 0-64 and eligible for Medicare because of disability) have higher total expenditures by $189, possibly due to expensive psychiatric drugs used by younger disabled beneficiaries (Chen et al., 2008). Among other demographic characteristics, females have lower expenditures than males by $91, and whites have higher expenditures than blacks by $347. The current reason for Medicare entitlement variable shows beneficiaries currently entitled by ESRD have $1,027 more in expenditures. The geographic residence of the beneficiary also influences total expenditures for Part D covered drugs. Beneficiaries residing in urban areas have higher expenditures by $122, and beneficiaries residing in the Northeast have higher expenditures than Midwest residents by $200 (and by $153 compared to West residents). These results could be a function of price, utilization, or both.

Table 6-12
Part D total expenditures regression

N = 10,968,984
Dependent Mean = 1,799
R-Square = 0.1243

Independent variable	Coefficient	T-ratio
Intercept	-156	-26.6
Age [omitted group 85+]		
0-64	189	53.2
65-74	-159	-67.0
75-84	-113	-46.4
Sex [omitted group male]		
Female	-91	-60.2
Race [omitted groups other & hispanic]		
White	182	44.9
Black	-165	-32.4
Current reason for Medicare entitlement [omitted groups aged & disabled]		
ESRD	1,027	57.8
Urbanicity [omitted group rural]		
Urban	122	65.7
Census region [omitted group west]		
Northeast	153	65.5
Midwest	-47	-21.2
South	-2	-0.8
RxHCC risk score percentiles [omitted group 0-5% (lowest percentile)]		
5-25%	439	121.4
25-50%	962	271.0
50-75%	1,471	412.5
75-95%	2,180	595.5
95-100% (highest percentile)	3,515	747.5
Plan type (omitted group MAPD)		
PDP	618	341.2
Enhanced plan (demo or non-demo)	269	140.4
Demo enhanced plan	11	5.4

NOTES:
1. Analytic sample is restricted to Part D beneficiaries meeting the following criteria:
   (a) Continuous Part D enrollment throughout 2007 (or if died, through month of death)
   (b) 12 months of Part A and B during 2006
   (c) No switching between PDP and MAPD plans in 2007
   (d) No low-income or long-term institutional Part D months in 2007
   (e) No enrollment in Part D employer, cost, or PACE plans in 2007
   (f) No enrollment in Part D plans serving Puerto Rico, Virgin Islands, or Guam in 2007
2. Total expenditures include amount paid for covered Part D drugs, regardless of payer.
3. Total expenditures are (i) annualized by dividing by the fraction of months in 2007 the beneficiary was enrolled in Part D, and then (ii) weighted by this fraction.
4. RxHCC risk scores are for payment year 2007 (based on 2006 diagnoses).

SOURCE: RTI analysis of 2007 PDE, CME, HPMS, Denominator, and RxHCC Files.

As expected, since the RxHCC risk score is an expenditure-weighted index of a beneficiary's diagnoses that predicts the relative risk of future Medicare Part D expenditures, it is a powerful predictor of total expenditures. Compared with beneficiaries in the lowest risk score percentile (0-5%), the estimated coefficients for all risk score percentiles are positive, and further, are monotonically increasing. For example, beneficiaries in the highest risk score percentile (95-100%) have higher total expenditures by $3,515. In addition, being enrolled in a PDP appears to impact total expenditures, with an estimated coefficient of $618, indicating other things equal, beneficiaries enrolled in a PDP plan have higher total Part D expenditures for covered drugs than do beneficiaries in MAPD plans. One possible reason for this is that MAPD plans integrate a beneficiary's health plan with their drug plan, and thus have a greater ability to manage their overall health care. In addition, more incentives might exist for MAPD enrollees to use generic drugs rather than brand name drugs.

Finally, Table 6-12 shows the estimated coefficients for the indicator variables for enrollment in enhanced plans (the main effect of being enrolled in enhanced coverage) and enrollment in demonstration enhanced plans (which is the marginal additional effect of being enrolled in demonstration enhanced coverage). The estimated coefficient for enhanced plan enrollment is $269, which is 15 percent of the sample mean (100*269/1799=15). This lends some support to the hypothesis that enhanced coverage causes induced demand for Part D covered drugs.[45] The estimated coefficient for demonstration enhanced plan enrollment is only $11, which means the additional impact of demonstration enhanced enrollment is quite small. The total impact of demonstration enhanced enrollment is therefore $280 (269+11=280). Thus there does not appear to be a large additional marginal impact of being enrolled specifically in demonstration enhanced coverage ($269 versus $280).

Table 6-13 and **Table 6-14** repeat the analyses for the PDP and MAPD samples, respectively. The results are broadly similar as for the combined sample. Noteworthy though is that the indicator variable for enhanced plan enrollment is much higher for PDP than for MAPD ($366 versus $66). Thus the induced demand effect of enhanced coverage appears to be stronger for PDP plan enrollees than for MAPD plan enrollees.

6.3.2 Utilization Regression

Table 6-15 presents the regression model results for factors determining annualized number of Part D 30-day prescriptions. The sample mean is 37.8 prescriptions, and the R-Squared is 0.2812. The results are broadly similar to those for expenditures, with some exceptions. For example, compared to the reference group of older beneficiaries (age 85+), each of the other age groups have lower utilization, with age 0-64 using 10.2 fewer prescriptions, age 65-74 using 6.4 fewer prescriptions, and age 75-84 using 3.7 fewer prescriptions. These results differ somewhat from the expenditures results, where the youngest beneficiaries (age 0-64) had higher expenditures than the oldest beneficiaries (age 85+). It could be that although the youngest beneficiaries are using fewer prescriptions, they are using more prescriptions that have higher unit costs, such as more expensive brand name drugs.

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[45] Alternatively, these results could be a result of selection bias into enhanced plans (Kautter et al., 2008). While this could be a partial explanation for these results, we did include the RxHCC risk score as a control variable in the regression model.

Table 6-13
Part D total expenditures regression—PDP

N = 7,105,642
Dependent Mean = 2,019
R-Square = 0.1150

Independent variable	Coefficient	T-ratio
Intercept	286	32.4
Age [omitted group 85+]		
0-64	169	35.6
65-74	-208	-67.4
75-84	-139	-43.9
Sex [omitted group male]		
Female	-131	-64.2
Race [omitted groups other & hispanic]		
White	238	35.4
Black	-234	-28.5
Current reason for Medicare entitlement [omitted groups aged & disabled]		
ESRD	973	46.9
Urbanicity [omitted group rural]		
Urban	146	67.2
Census region [omitted group west]		
Northeast	93	26.8
Midwest	-59	-19.4
South	18	6.2
RxHCC risk score percentiles [omitted group 0-5% (lowest percentile)]		
5-25%	520	97.1
25-50%	1,088	207.4
50-75%	1,632	310.7
75-95%	2,387	446.1
95-100% (highest percentile)	3,782	580.5
Enhanced plan (demo or non-demo)	366	133.0
Demo enhanced plan	-36	-11.1

NOTES:
1. Analytic sample is restricted to Part D beneficiaries meeting the following criteria:
   (a) Continuous Part D enrollment throughout 2007 (or if died, through month of death)
   (b) 12 months of Part A and B during 2006
   (c) No MAPD plan enrollment in 2007
   (d) No low-income or long-term institutional Part D months in 2007
   (e) No enrollment in Part D employer, cost, or PACE plans in 2007
   (f) No enrollment in Part D plans serving Puerto Rico, Virgin Islands, or Guam in 2007
2. Total expenditures include amount paid for covered Part D drugs, regardless of payer.
3. Total expenditures are (i) annualized by dividing by the fraction of months in 2007 the beneficiary was enrolled in Part D, and then (ii) weighted by this fraction.
4. RxHCC risk scores are for payment year 2007 (based on 2006 diagnoses).

SOURCE: RTI analysis of 2007 PDE, CME, HPMS, Denominator, and RxHCC Files.

Table 6-14
Part D total expenditures regression—MAPD

N = 3,863,342
Dependent Mean = 1,396
R-Square = 0.1127

Independent variable	Coefficient	T-ratio
Intercept	176	22.6
Age [omitted group 85+]		
0-64	263	52.0
65-74	-69	-19.4
75-84	-58	-16.0
Sex [omitted group male]		
Female	-24	-11.3
Race [omitted groups other & hispanic]		
White	124	27.6
Black	-96	-16.7
Current reason for Medicare entitlement [omitted groups aged & disabled]		
ESRD	1,227	31.7
Urbanicity [omitted group rural]		
Urban	22	5.6
Census region [omitted group west]		
Northeast	239	81.3
Midwest	21	6.5
South	-26	-9.6
RxHCC risk score percentiles [omitted group 0-5% (lowest percentile)]		
5-25%	376	84.2
25-50%	835	189.7
50-75%	1,277	286.4
75-95%	1,878	403.4
95-100% (highest percentile)	3,037	457.6
Enhanced plan (demo or non-demo)	73	27.0
Demo enhanced plan	6	2.4

NOTES:
1. Analytic sample is restricted to Part D beneficiaries meeting the following criteria:
   (a) Continuous Part D enrollment throughout 2007 (or if died, through month of death)
   (b) 12 months of Part A and B during 2006
   (c) No PDP plan enrollment in 2007
   (d) No low-income or long-term institutional Part D months in 2007
   (e) No enrollment in Part D employer, cost, or PACE plans in 2007
   (f) No enrollment in Part D plans serving Puerto Rico, Virgin Islands, or Guam in 2007
2. Total expenditures include amount paid for covered Part D drugs, regardless of payer.
3. Total expenditures are (i) annualized by dividing by the fraction of months in 2007 the beneficiary was enrolled in Part D, and then (ii) weighted by this fraction.
4. RxHCC risk scores are for payment year 2007 (based on 2006 diagnoses).

SOURCE: RTI analysis of 2007 PDE, CME, HPMS, Denominator, and RxHCC Files.

Table 6-15
Part D number of 30-day supplies regression

N = 10,968,984
Dependent Mean = 37.8
R-Square = 0.2812

Independent variable	Coefficient	T-ratio
Intercept	9.7	161.4
Age [omitted group 85+]		
0-64	-10.2	-279.1
65-74	-6.4	-261.5
75-84	-3.7	-148.4
Sex [omitted group male]		
Female	-0.4	-24.4
Race [omitted groups other & hispanic]		
White	4.4	104.8
Black	-0.7	-12.5
Current reason for Medicare entitlement		
[omitted groups aged & disabled]	2.6	14.4
ESRD		
Urbanicity [omitted group rural]		
Urban	-0.8	-41.6
Census region [omitted group west]		
Northeast	-2.8	-115.6
Midwest	-1.0	-41.7
South	-2.1	-99.2
RxHCC risk score percentiles		
[omitted group 0-5% (lowest percentile)]	9.9	264.5
5-25%		
25-50%	22.8	621.9
50-75%	33.4	907.7
75-95%	45.0	1193.4
95-100% (highest percentile)	58.8	1213.4
Plan type (omitted group MAPD)		
PDP	3.7	197.1
Enhanced plan (demo or non-demo)	2.3	116.6
Demo enhanced plan	-0.1	-6.1

NOTES:
1. Analytic sample is restricted to Part D beneficiaries meeting the following criteria:
   (a) Continuous Part D enrollment throughout 2007 (or if died, through month of death)
   (b) 12 months of Part A and B during 2006
   (c) No switching between PDP and MAPD plans in 2007
   (d) No low-income or long-term institutional Part D months in 2007
   (e) No enrollment in Part D employer, cost, or PACE plans in 2007
   (f) No enrollment in Part D plans serving Puerto Rico, Virgin Islands, or Guam in 2007
2. Number of 30-day supplies are for covered Part D drugs.
3. Number of 30-day supplies are (i) annualized by dividing by the fraction of months in 2007 the beneficiary was enrolled in Part D, and then (ii) weighted by this fraction.
4. RxHCC risk scores are for payment year 2007 (based on 2006 diagnoses).

SOURCE: RTI analysis of 2007 PDE, CME, HPMS, Denominator, and RxHCC Files.

Again, the RxHCC risk score is a powerful predictor of prescription drug utilization. Compared with beneficiaries in the lowest risk score percentile (0-5%), the estimated coefficients for all risk score percentiles are positive and monotonically increasing. For example, beneficiaries in the highest risk score percentile (95-100%) have higher numbers of 30 day prescriptions by 58.8, which translates into about 5 additional medications these beneficiaries are taking on a regular basis (58.8 prescriptions /12 months ≈ 5 prescriptions per month).

Finally, Table 6-15 shows the estimated coefficients for the indicator variables for enrollment in enhanced plans (the main effect of being enrolled in enhanced coverage), and enrollment in demonstration enhanced plans (the marginal or additional effect of being enrolled in demonstration enhanced coverage). The estimated coefficient for enhanced plan enrollment is 2.3 prescriptions, which is only 6 percent of the sample mean (100*2.3/37.8=6). This lends less support to the induced demand hypothesis than did the model for total expenditures. The estimated coefficient for demonstration enhanced plan enrollment is only -0.1 prescriptions, and so similar to the expenditures model, there does not appear to be a substantial marginal impact of being enrolled in demonstration enhanced coverage. Thus the estimated induced demand effect of being enrolled in demonstration enhanced coverage is 2.2 prescriptions (2.3-0.1=2.2).

Table 6-16 and **Table 6-17** repeat the analyses for the PDP and MAPD samples, respectively. The results are broadly similar as for the combined sample. Noteworthy though is that the indicator variable for enhanced plan enrollment is much higher for PDP than for MAPD (5.1 versus -2.3), whereas the indicator variable for demonstration enhanced enrollment is lower for PDP than for MAPD (-1.8 versus 0.9). For PDPs, the estimated induced demand effect of being enrolled in demonstration enhanced coverage is 3.3 prescriptions (5.1-1.8=3.3), and for MAPD it is -1.4 (-2.3+0.9=-1.4). Note that MAPDs do not appear to exhibit an induced demand effect for enhanced coverage, and actually exhibit the opposite effect. Possibly this might be due to better drug utilization management within the MAPD.

6.3.3 Summary of Multivariate Findings

Multivariate regression models were estimated for Part D total expenditures and 30-day prescriptions. As expected, since the RxHCC risk score is an expenditure-weighted index of a beneficiary's diagnoses that predicts the relative risk of future Medicare Part D expenditures, it was a powerful predictor of both Part D expenditures and utilization. Compared to the lowest percentile risk score group (0-5%), the highest percentile group (95-100%) had $3,515 more total expenditures, and 58.8 more prescriptions.

The multivariate regression results showed that there is limited evidence for an induced demand effect of enhanced coverage plan offerings. Other things equal, enhanced plan enrollees have $269 more in total expenditures, and 2.3 more prescriptions. The induced demand effect appears to be mainly driven by being enrolled in any enhanced plan, not necessarily being enrolled in a demonstration enhanced plan. This last result might make sense when one recalls that the plan benefit structures for demonstration enhanced plans are not substantially different than for non-demonstration enhanced plans. The evidence for an induced demand effect is stronger for PDP enrollees than it is for MAPD enrollees, and for total expenditures than for utilization. Thus we have only shown a limited finding in this section.

Table 6-16
Part D number of 30-day supplies regression—PDP

N = 7,105,642
Dependent Mean = 39.9
R-Square = 0.2755

Independent variable	Coefficient	T-ratio
Intercept	10.1	116.9
Age [omitted group 85+]		
0-64	-11.6	-250.3
65-74	-7.4	-247.2
75-84	-4.3	-140.5
Sex [omitted group male]		
Female	-0.7	-35.5
Race [omitted groups other & hispanic]		
White	5.9	90.0
Black	-0.3	-3.2
Current reason for Medicare entitlement [omitted groups aged & disabled]		
ESRD	2.4	12.0
Urbanicity [omitted group rural]		
Urban	-0.9	-42.6
Census region [omitted group west]		
Northeast	-0.6	-18.7
Midwest	1.6	54.3
South	0.4	12.2
RxHCC risk score percentiles [omitted group 0-5% (lowest percentile)]		
5-25%	10.1	192.3
25-50%	23.0	448.5
50-75%	33.6	654.8
75-95%	45.3	867.9
95-100% (highest percentile)	59.2	930.6
Enhanced plan (demo or non-demo)	5.1	189.3
Demo enhanced plan	-1.8	-56.2

NOTES:
1. Analytic sample is restricted to Part D beneficiaries meeting the following criteria:
   (a) Continuous Part D enrollment throughout 2007 (or if died, through month of death)
   (b) 12 months of Part A and B during 2006
   (c) No MAPD plan enrollment in 2007
   (d) No low-income or long-term institutional Part D months in 2007
   (e) No enrollment in Part D employer, cost, or PACE plans in 2007
   (f) No enrollment in Part D plans serving Puerto Rico, Virgin Islands, or Guam in 2007
2. Number of 30-day supplies are for covered Part D drugs.
3. Number of 30-day supplies are (i) annualized by dividing by the fraction of months in 2007 the beneficiary was enrolled in Part D, and then (ii) weighted by this fraction.
4. RxHCC risk scores are for payment year 2007 (based on 2006 diagnoses).

SOURCE: RTI analysis of 2007 PDE, CME, HPMS, Denominator, and RxHCC Files.

Table 6-17
Part D number of 30-day supplies regression—MAPD

N = 3,863,342
Dependent Mean = 34.0
R-Square = 0.2846

Independent variable	Coefficient	T-ratio
Intercept	12.6	138.2
Age [omitted group 85+]		
0-64	-7.1	-119.3
65-74	-4.2	-100.5
75-84	-2.3	-54.5
Sex [omitted group male]		
Female	0.0	1.7
Race [omitted groups other & hispanic]		
White	3.4	64.8
Black	-0.4	-5.6
Current reason for Medicare entitlement [omitted groups aged & disabled]		
ESRD	5.0	11.0
Urbanicity [omitted group rural]		
Urban	0.5	11.6
Census region [omitted group west]		
Northeast	-4.4	-128.4
Midwest	-4.0	-102.6
South	-4.4	-136.6
RxHCC risk score percentiles [omitted group 0-5% (lowest percentile)]		
5-25%	9.5	182.5
25-50%	22.4	434.3
50-75%	33.0	631.0
75-95%	44.3	812.2
95-100% (highest percentile)	57.7	742.1
Enhanced plan (demo or non-demo)	-2.3	-70.8
Demo enhanced plan	0.9	28.8

NOTES:
1. Analytic sample is restricted to Part D beneficiaries meeting the following criteria:
   (a) Continuous Part D enrollment throughout 2007 (or if died, through month of death)
   (b) 12 months of Part A and B during 2006
   (c) No PDP plan enrollment in 2007
   (d) No low-income or long-term institutional Part D months in 2007
   (e) No enrollment in Part D employer, cost, or PACE plans in 2007
   (f) No enrollment in Part D plans serving Puerto Rico, Virgin Islands, or Guam in 2007
2. Number of 30-day supplies are for covered Part D drugs.
3. Number of 30-day supplies are (i) annualized by dividing by the fraction of months in 2007 the beneficiary was enrolled in Part D, and then (ii) weighted by this fraction.
4. RxHCC risk scores are for payment year 2007 (based on 2006 diagnoses).

SOURCE: RTI analysis of 2007 PDE, CME, HPMS, Denominator, and RxHCC Files.

SECTION 7
SUMMARY EVALUATION FINDINGS

In this section, we return to the overall research questions for the Part D Payment Demonstration Evaluation – questions which sought to determine whether the demonstration had measurable impacts on Part D participating organizations, Medicare beneficiary enrollees, and the overall Medicare program. The Reinsurance Demonstration was originally designed in part to encourage participating Part D organizations to offer enhanced benefit package products in a wider range of markets by offering reinsurance financing "up front" in the form of capitated payments. Ultimately, as the Part D program matured, availability of products – basic and enhanced – did not turn out to be a problematic policy issue. Still, the impact of this alternative financing option is still of potential interest to policy makers as they consider the future modification to the Part D program. We summarize here the overall results of the demonstration, organized by the primary elements of the evaluation analyses.

7.1 Perspectives of Part D Plan Sponsors

Did the Reinsurance Demonstration Impact the Types of Benefits Offered Under Part D?

A key element of the site visit discussions related to the impact of the reinsurance demonstration. Almost all of the organizations believed that the alternative reinsurance financing offered under the demonstration gave them the opportunity to offer a richer package of drug benefits or lower premiums than they would have been able to offer without the demonstration. Many organizations would have offered some Part D enhancements even without the demonstration financing, depending on the competitiveness of the market, although a few organizations specifically stated that without the demonstration they would not have been able to offer a Part D standalone plan with gap coverage. However, there was almost universal agreement that the demonstration allowed either "better" enhanced benefits, lower monthly premiums—or both—because of the demonstration. The majority of organizations participating in the demonstration chose the flexible capitation option, though some elected the fixed capitation option. No organizations (at least in 2006) chose the MA rebate options (a number of organizations admitted they were somewhat confused by this alternative). Organizations that chose the flexible capitation reinsurance option cited the relative ease of administration for this method. Another reason cited for the appeal of the flexible capitation option included a perception that there would be less adverse selection in using the flexible option over the fixed option because high-cost beneficiaries would choose plans with the fixed option.

A wide variation was found in the design of Part D products, with decisions based on individual organizational goals. A common thread in Part D product development was an upfront decision by organizations as to their level of interest in the market penetration for Medicare PDPs and the MA program. The range and scope of Medicare Part D options tended to flow from this basic organization perspective. Some organizations reported that Medicare was a major organizational initiative and opportunity for them. These organizations tended to offer a wider range of product types (for example, within Medicare Advantage offering PPOs, PFFS, and HMOs, as well as expanding into standalone PDPs) and benefit packages to maximize enrollment and market penetration. Others reported a more conservative approach to Medicare. Some of these organizations reported constant pressure by parent companies to limit Medicare

products. These organizations tended to offer Medicare Part D products similar to what they had offered in the past. However, a few of these more conservative organizations also decided to offer PDP products.

A key element of the design of benefit packages was the monthly premium. Organizations believed this is one of the primary focal points for potential enrollees. All organizations appeared to set the monthly premium with great care, looking particularly at how the monthly premium would position them in their respective markets. Some plans noted that specific premium levels (for example, in some markets, $0 premiums for Medicare Advantage products) were absolutes for defining viable products. It was noteworthy that the two organizations with the richest gap coverage had markedly different premiums, one with $0 (an MA-PD) and the other with over $100 (a standalone PDP). Beyond premiums, strategies for defining formularies and drugs covered were also an important aspect of benefit design across all products. Most organizations with whom we spoke had closed formularies for their low option plans, meaning they have specific lists of covered and noncovered drugs. Higher-option plans often covered a broader range of drugs.

All the organizations cited implementation and operational issues related to the first year of the Part D program. These issues, however, rarely had any relationship to the demonstration per se. Organizations told us that while the demonstration options added some complexity to the overall Part D implementation, the pressures of the program as a whole were so great that the demonstration added only one additional issue to think about. The larger organizations explained that, through their government relations activities, they were expecting something along the lines of the reinsurance demonstration, and therefore began basic planning relatively early on in their Part D implementation process. Other smaller plans seemed to become aware of the demonstration options later on, and then relied on consultants to help them adjust their benefits and bids accordingly. In reviewing the distribution of enhanced benefit plans, a number of organizations chose to offer enhanced products outside the demonstration. Demonstration participants were asked for their theories on this unexpected outcome. The most prevalent response was that, in the rush to implement the Part D program as a whole, some organizations may not have had the time or resources to address the possibility of reinsurance demonstration participation. No demonstration participating organization offered a substantive reason why it might be in the interest of insurers to offer enhanced Part D benefits outside the demonstration, unless the enhancements were only below the initial coverage limit and did not involve filling in the coverage gap.

Did the Reinsurance Demonstration Change the Way Part D Participating Organizations Viewed the Medicare Part D Program?

Despite having a number of concerns and suggestions for changes in the overall Part D program, all the organizations with whom we spoke thought that Part D was a good program and an important new part of Medicare. These organizations believed that CMS has done, in general, a good job of contending with a very difficult, very aggressive implementation. Most organizations compared implementation of the Part D program favorably when compared to implementation of the programmatic changes mandated by the Balanced Budget Act of 1997.

Organizations were universally supportive of the reinsurance demonstration and, as noted earlier, thought the financing available under the demonstration allowed them to offer better enhanced benefits for lower premiums. Most organizations said they would probably have offered some form of enhanced benefits even without the demonstration, but were clear the enhancements would have been less or the premiums and cost sharing would have been higher. In our site visits, we did not find that the demonstration had any real effects on the implementation issues that arose, or the marketing and education strategies organizations used.

Overall views of early success of the demonstration were positive among the organizations visited. Most organizations thought that so far, the demonstration overall has been a success. Most of the organizations have met or exceeded their enrollment goals set before the demonstration started. However, many organizations were only cautiously optimistic with respect to the financial success of the demonstration, mainly because of more adverse selection for their demonstration products than expected. These organizations had a "wait and see" attitude with respect to the ultimate success of the demonstration.

As part of our evaluation, we also spoke with organizations who offered enhanced Part D plans, but chose not to participate in the demonstration. There are a large number of enhanced plans offered under Part D without the benefits of demonstration participation; this questions the necessity of the demonstration to ensuring the availability of enhanced Part D products. The non-participating organizations we spoke with primarily cited operational limitations in explaining their decision. The decision to participate in the reinsurance demonstration initially had to be made at an extremely busy time when inaugural Part D bids and product implementation plans were due. Non-participating plans said they simply did not have the resources to evaluate this demonstration option; an option that was also viewed by these organizations as somewhat complex and confusing. In addition, these organizations also raised some concerns about forgoing the opportunity to reconcile actual expenditures in calculating reinsurance payments. These organizations were somewhat concerned about the added financial risk involved in demonstration participation

7.2 Perspectives of Medicare Part D Enrollees

Where there Differences Between the Perspectives of Enrollees in Demonstration Part D Plans versus Enrollees of Non-Demonstration Part D Plans?

Based on limited focus groups, we did note some key differences among the enrollees in demonstration versus non-demonstration plan. First, enrollees in demonstration plans were much more aware of having a range of choices, particularly choices among basic and enhanced benefit packages. Demonstration plan enrollees across all sites appear to have engaged in a much more deliberate process for making a Part D plan choice. Second, enrollees in demonstration plans were generally more knowledgeable about Part D plan benefit details. With the exception of non-demonstration plan enrollees in West Palm Beach, non-demonstration plan enrollees knew much less about key Part D plan features (such as the coverage gap). Third, enrollees in the demonstration plans, based on their self-descriptions, appeared on average to be healthier and consume fewer drugs than the non-demonstration enrollees. It was expected that enrollees in demonstration enhanced plans to have greater drug needs compared to the non-demonstration enrollees who were overwhelmingly enrolled in basic plans. The opposite appeared to be true;

that demonstration plan enrollees described themselves generally as needing fewer drugs than many of the non-demonstration enrollees, who commonly described themselves as having complex medical needs and requirements for a wide range of drugs. This finding might be explained by a greater representation of higher income beneficiaries, with better on average health status, having a greater ability to pay higher enhanced plan premiums.

The limitations of focus group analysis do not allow us to definitively identify reasons for these observed differences among the groups. However, we were able to identify a number of potential explanations. First, enrollees in demonstration plans are, by definition, all enrolled in enhanced plan products. These products are often (but not always) more expensive than comparable products available in the marketplace. Therefore, beneficiaries willing to pay additional money may also have been more willing to invest time and energy in gathering information to make an informed choice. Second, though we have no direct evidence, organizations that chose to participate in the demonstration in order to offer enhanced benefits might also have done a better job of educating potential enrollees about their products and those product features. Third, beneficiaries receiving government subsidies were eligible to enroll in only basic plans (unless they chose to pay higher premiums, which few have). These beneficiaries of lower socioeconomic status may have either been auto assigned to plans, and/or, because of the subsidies they receive, had little incentive to choose carefully among plan choices.

7.3 Impact of the Reinsurance Demonstration on Plan Benefits

From this analysis of plan benefits offered to enrollees, we found that the reinsurance demonstration did not increase the availability of enhanced benefits and did not always offer systematically better enhanced benefits compared to non-demonstration enhanced plans. We did find that demonstration plans offered more value for money to beneficiaries, at least according to the generosity index described in Section 4.5.

Did Benefit Offerings Differ Between Demonstration and Non-Demonstration Options?

Premiums and Cost Sharing: The availability of the alternative financing available through the Reinsurance Demonstration may, or may not, have impacted the premiums and cost sharing charged to enrollees for enhanced plan benefits. In general, we found that demonstration enhanced plans were often slightly more expensive in terms of monthly premiums than non-demonstration enhanced plans. This can be accounted for in some, but not all cases, by slightly increased benefits offered by demonstration plans. Among PDPs, demonstration enhanced plans had the highest average premiums, followed closely by non-demonstration enhanced plans. Flexible capitation enhanced plan premiums (no fixed capitation PDPs were offered in 2006) were between $10 and $20 per month more expensive than basic plans, and about $3 more costly per month than non-demonstration enhanced plans. The mean premium for flexible demonstration plans increased by 15 percent between 2006 and 2007, while non-demonstration plans increased by only 4 percent. This may be evidence of selection of higher-risk people into the more generous demonstration plans, or simply that demonstration plans were underpriced at the start. Demonstration plans tended to have higher premiums than non-demonstration plans. However, demonstration plans had lower deductibles and higher initial coverage limits.

By 2007, demonstration and non-demonstration premiums (both enhanced and basic) were about the same, hovering around $20 per month. Among MA-PDs, demonstration enhanced plans were also, on average, more expensive than all other plans, although the differences were much smaller and in some cases as little as $1 per month. In 2006, the MA non-demonstration enhanced plan had a median premium of $0.00, but in 2007, the median premium in this group increased to $18.30. Although the mean for the 10 fixed capitation MA plans dropped from $38.63 to $18.10, the median premium dropped from $42.00 in 2006 to $0.00 in 2007.

We compared cost sharing as defined by plan deductibles and initial coverage levels and found a number of differences among plan types. The $0 median deductibles for basic alternative and all enhanced plans were particularly noteworthy, indicating that waiving the standard deductible was a common benefit design element among all enhanced plans types. We did find, however, that mean deductibles for non-demonstration enhanced plans were slightly above $0 (but all less than $10) suggesting that unlike demonstration enhanced plans, not all non-demonstration enhanced plans waived plan deductibles. This suggests a slightly improved systematic benefit offered by demonstration plans, though its value (at $265 in 2007) is modest.

Among enhanced benefit plans, non-demonstration plans generally followed the pattern found in alternative basic plans, offering lower deductibles paired with low initial coverage limits. Not surprisingly given their low monthly premiums, non-demonstration enhanced plans had corresponding lower mean and median initial coverage limits as compared with other enhanced plans. The lower the initial coverage limit, the sooner the enrollee theoretically enters the coverage gap. However, it is important to note that the trend among enhanced non-demonstration plans, which on average started at a mean initial coverage level of just under $2,000 in 2006, increased in 2007. The PDP initial coverage limit increased by $88, and the MA-PD initial coverage limit increased by $400, a 20 percent increase. By comparison, the demonstration plans had higher initial coverage limits compared with non-demonstration plans, a median of $3,000, which did not change between 2006 and 2007. Flexible capitation demonstration plan enrollees have the longest period of coverage prior to entering the coverage gap. Whether or not this indicates a "better" benefit to enrollees however depends on the likelihood that a beneficiary will enter and emerge from the coverage gap. If an enrollee chooses a demonstration plans with a higher initial coverage limit, and will enter but not emerge from the coverage gap, the benefit is better. However, for an enrollee who has prescription drug benefits sufficient to both enter and emerge from the coverage gap, the higher initial coverage limit delays the financial point at which the substantial coverage of the catastrophic levels begins. Therefore, it is difficult to determine without utilization data whether the higher initial coverage limits found among demonstration enhanced plans is always indicative of "better" benefits.

We also found differences among demonstration and non-demonstration plans on cost sharing, as defined by coinsurance and copayments within drug tiers. With the exception of the defined standard benefit plans, whose designs do not include the use of drug cost-sharing tiers, all other plan types used drug tiers as an incentive for beneficiaries to use certain types of drugs. The majority of plans used copayments in the lowest tiers and coinsurance in higher tiers. PDPs tended to have fewer drug tiers than MA-PDs. Universally, the percentage of total tiers using copayments dropped between 2006 and 2007, implying that plans switched tiers from copayments to another form of cost sharing, such as coinsurance, or that plans increased their total number of tiers, supplementing copayment tiers with more coinsurance tiers. This is a

somewhat troubling trend as coinsurance places a greater financial burden on beneficiaries compared to copayments. Of note, we found that in general demonstration enhanced plans were trending more quickly toward coinsurance than non-demonstration enhanced plans. In 2007, PDP demonstration plans had higher proportion of plans applying copayments; in contrast, MA-PD demonstration plans had a lower proportion of plans applying copayments. Among enhanced plans, flexible capitation demonstration plans applied fewer total copayment tiers. Among enhanced plans, mean and median coinsurance rates within tiers tended to vary little, but the total number of tiers on average increased between 2006 and 2007.

Gap Coverage: As with the premiums and cost sharing charged to enrollees, the alternative financing available to demonstration plans may have influenced these plan sponsor's ability to offer gap coverage to their enrollees. We found some differences between demonstration and non-demonstration plans in terms of the these benefit elements, though perhaps the differences were not as great as we expected given the additional funding available to demonstration plans up front (instead of after reinsurance reconciliation). Demonstration enhanced plans were not required to offer coverage in the gap, and not all demonstration plans did so, opting instead to offer other enhanced benefits. The majority of demonstration PDPs (74.3 percent) did offer gap coverage; only a minority of demonstration MA-PDs (33.1 percent) offered gap coverage. Among PDPs, a much larger proportion of flexible capitation demonstration plans offered either generic or generic and brand-name drug coverage in the gap, as compared with non-demonstration enhanced PDPs. Among MA-PDs, flexible capitation demonstration plans were more likely to offer generic coverage in the gap in 2006, but not in 2007, compared with either non-demonstration enhanced or fixed capitation demonstration plans. In 2007, data became available on types of gap coverage offered by plans. An average of only about 2 percent to 3 percent of plans covered all formulary drugs or generics and preferred drugs. This implies that even when drugs are covered, coverage in the gap is very limited for all enhanced plan types.

Was There Evidence that the Part D Payment Demonstration Resulted in More Generous Enhanced Benefit Packages?

Premiums and Cost Sharing: We found little systematic patterns indicating demonstration plan benefits in structure offered better benefits to enrollees. Considering the premium and cost sharing of demonstration versus non-demonstration plans, we found a number of instances in which demonstration plans were *more* costly than both non-demonstration enhanced and basic plan packages. For example, in MA-PDs in 2006, fixed capitation enhanced demonstration plans had the highest monthly mean premiums, and flexible capitation plans had the second-highest monthly premiums (though only by a small margin over defined standard benefit plans). In 2007, MA-PD premiums were the same on average across plans; but in PDPs, demonstration plan premiums were consistently higher than any other plan premium. On many of the cost-sharing measures—particularly initial deductible and coverage limits— enhanced plans offered lower cost sharing in exchange for higher premiums. Among enhanced plans, the flexible capitation demonstration plans offered the highest initial coverage levels of all plan type variants, particularly the flexible capitation MA-PDs, which had a median initial coverage level of $3,000. But as noted earlier, whether higher initial coverage levels is necessarily a better benefit depends in large part on if, and at what point, the enrollee is likely to enter and emerge from the coverage gap. A higher initial coverage limitation can, for some beneficiaries, result in

a delay at the point in which they enter and emerge from the coverage gap to receive generous catastrophic level benefits. We also found some additional trends, such as quicker movement from copayments to more costly coinsurance among demonstration plans compared to non-demonstration plans.

Demonstration plans in general were more likely to offer coverage in the coverage gap compared with non-demonstration plans, though not all demonstration plans offered this type of enhanced benefit as was the expectation among some policy makers. This advantage among demonstration plans relative to non-demonstration plans was only found among PDPs; differences in offering of gap coverage. A total of 74.3 percent of flexible capitation PDPs offer either generic or generic/brand-name coverage in the gap, as compared with MA-PDs, while a total of 33.1 percent of flexible capitation and 80.0 percent of fixed capitation plans offered some gap coverage. The limited gap coverage under flexible capitation MA-PDs was the most surprising finding.

We expected MA demonstration plans to offer gap coverage at a rate at least as high as the rate among PDPs or non-demonstration MA-PDs; they did not. This finding is particularly surprising given that MA-PDs had the potential to subsidize additional benefits through either the reinsurance demonstration funds or Medicare Part A and B rebates; PDPs do not have the rebate option. However, PDPs may have perceived a need to offer the best benefits possible to compete against the wide variety of stand-alone prescription drug options available in most regions. Participation in the demonstration did not guarantee that coverage in the coverage gap would be available.

Generosity Index: Our generosity analysis suggests that, taking simulated utilization into account, demonstration plans may turn out to be less expensive and hence more generous for beneficiaries. Comparing demonstration and non-demonstration enhanced plans, we found that across both PDPs and MA-PDs, demonstration plans had a lower total cost (i.e., Total Cost = Premium + Average Out-of-Pocket Monthly Cost). Among MA-PDs, this was true across age groups and illness groups. As age increased and as self-reported illness increased, average spending also increased; however, demonstration plans consistently cost less than all other plans. Among PDPs, mean out-of-pocket expenditures for demonstration plans were about $17 less per month, indicating (by this measure) a more generous product. For MA-PDs, mean out-of-pocket spending for flexible capitation demonstration plans was about $15 less per month, and fixed capitation demonstration plans was $12 lower per month than enhanced non-demonstration plans. We found similar results when analyzing spending by age and health status category. Overall, the generosity of MA-PDs was greater (i.e., cost per month cheaper) than that of PDPs. The difference between basic MA-PDs was slight at about $25 (see Table 6-1)—the amount of the premium. The difference between enhanced PDPs and MA-PDs was much greater, closer to $20 per month.

The greater generosity among demonstration plans was consistent across age group and illness level for MA-PDs. Among beneficiaries aged 70 to 74, we found that (for MA-PDs) for individuals in poor health, the demonstration plans are predicted to be less expensive ($157) than either the non-demonstration enhanced plan ($191) or the standard plan ($210). This is true consistently across health status; both flexible and fixed capitation demonstration plans provide drugs more cheaply to all patients regardless of health status in the 70- to 74-year-old age group.

We also see that the basic plans are consistently more costly considering this simulated utilization than the non-demonstration enhanced plans, indicating that, although premiums are slightly higher, people generally utilize the benefits enough to offset the higher premiums in the enhanced plans.

7.4 Impact of the Reinsurance Demonstration on Part D Enrollment

One central objective of the Part D Payment Demonstration is to increase beneficiaries' choices of, and access to, enhanced benefit packages and in particular supplemental drug coverage. Therefore a major focus of RTI's evaluation of the demonstration considered beneficiary's responses to these enhanced options through their enrollment decisions

How Did Total Enrollment in Demonstration Enhanced Plans Compare to Non-Demonstration Enhanced and Basic Plans?

Both in 2006 and 2007, most Medicare beneficiaries who enrolled in a Medicare Part D plan chose a basic plan. In both years, roughly twice as many Medicare Part D enrollees chose basic plans compared to enhanced plans. Medicare Part D enrollees also enrolled in greater numbers in standalone PDPs compared to MA-PDs. However, enrollment trends between 2006 and 2007 may in the future result in different patterns. Between these years, enrollment in most basic plans declined, with overall enrollment in basic plans declining 0.8 percent between 2006 and 2007. The exception was enrollment in basic alternative plans, which increased a total of 8.1 percent. By comparison, enrollment in enhanced plans showed substantial growth even over this two year period. Enrollment in almost all enhanced plans climbed between 2006 and 2007, resulting in an overall increase of 21.5 percent. Therefore, while basic Part D plans appear to have been the initial choice for Medicare Part D enrollments, trends may suggest greater emphasis on plans offering enhanced benefits in the future.

By 2007 there were many more non-demonstration enhanced plans available compared to demonstration enhanced plans. Therefore, it is not surprising that the majority of enrollees in enhanced Part D plans chose a non-demonstration plan in 2007. However, if we compare enrollment in demonstration versus non-demonstration plans (simply by dividing the total enrollment by the number of plans offered), we found that demonstration enhanced plans have attracted about 3 times as many enrollees compared to non-demonstration enhanced plans. This suggests that while the total number of enrollees in non-demonstration enhanced plans is outpacing demonstration plans, the demonstration plans are much more successful—plan for plan—at attracting enrollees. There are a number of possible explanations for this finding, one being that demonstration plans, which include most of the largest national managed care organizations, may invest more in marketing and information dissemination aimed at attracting potential enrollees.

Did Enrollment Trends In Demonstration Versus Non-Demonstration Plans Vary by Enrollee Characteristics?

We found that in both 2006 and 2007 the distribution of enrollment characteristics varies little between overall plan types, suggesting little evidence for selection bias. For example, in 2007 basic plans had about 27 percent of their enrollment from the under 65 disabled population,

35 percent from the 65-74 age group, about 26 percent from the 75-84 age group, and about 12 percent from the over 85 age group. The exception was the actuarially equivalent basic plans, which drew a slightly larger proportion of enrollment from the under 65 age group. Similar patterns were found among the enhanced plans, and there appears to be little variation in beneficiary characteristics between demonstration and non-demonstration enrollees. In 2007, enhanced plans drew about 11 percent of their enrollment from the under 65 disabled population, 46 percent of enrollment from the 65-74 age group, about 32 percent from the 75-84 age group, and another approximately 11 percent from the over 85 age group. We saw that non-demonstration plans drew slightly larger proportions of their enrollees from the older age groups. Similar patterns were found for gender.

There were differences between plan types with regard to dual-eligibility status, but this is an effect of specific policy requirements. Medicaid eligible beneficiaries can enroll in a basic plan, but must pay out of pocket for additional premiums if they enroll in an enhanced plan. Therefore, as expected, the majority of dually entitled beneficiaries have enrolled in basic plans. The analysis found that actuarially equivalent plans had a much smaller proportion of dually entitled beneficiaries compared to other basic plans.

Did Enrollment Trends in Demonstration Versus Non-Demonstration Plans Vary by Geographic Area?

Similar to the Non-Part D population, we found that most enrollees in Part D plans of all benefit types are found in urban rather than rural counties. In 2007, 77.3 percent of all Part D enrollees, 74.8 percent of basic plan enrollees, and 81.9 percent of enhanced plan enrollees were residents of urban counties. Within basic plans, we found few large differences among plan types though enrollees in defined standard plans were less urban than other basic plan enrollees. Among enhanced plans, there was some consistency in the urban majority of enrollees. However, a greater proportion of non-demonstration enrollees were residents of urban counties (87.1 percent) compared to enrollees in demonstration plans (75.0 percent). This suggests that non-demonstration plans draw greater proportions of urban relative to rural enrollees. There were few differences among the demonstration plans (with the exception of high urban concentration of the fixed capitation plans—we discounted the relevance of this finding due to the small number of fixed capitation plans). We also saw no large urbanicity-based enrollment changes between 2006 and 2007, or between PDP and MA-PD plans.

In both 2006 and 2007, total Part D plan enrollees were generally distributed evenly across the country, with some exceptions. For example, in 2007, we found that among all Part D plans, the Northeast has the lowest concentration (18.8 percent) of Part D plan enrollees, and the South (with 37.8 percent) had the highest concentration of enrollees.[46] These patterns persisted for both basic and enhanced benefit packages. Comparing demonstration and non-demonstration enhanced plans, we found that enrollment in non-demonstration enhanced plans—particularly among MA-PDs—was much more concentrated in the Northeast where 22.7 percent of non-demonstration enrollees were located, compared to 7.9 percent of demonstration enrollees.

[46] For the Non-Part D population, the West had the lowest concentration (16.6 percent), with the Northeast having the second lowest concentration (19.9 percent). The South again had the highest concentration (38.5 percent).

Similarly, there was a higher concentration of non-demonstration enrollees in the West compared to demonstration enrollees. Demonstration enrollees, driven by the dominant flexible capitation option plans, were concentrated in the Midwest and South. There were few changes in these trends between 2006 and 2007.

Did Enrollment Trends in Demonstration Versus Non-Demonstration Plans Suggest the Demonstration Resulted in Receipt of Improved Benefits, Such as Reduced Deductibles and/or Coverage in the Gap?

In 2007, non-demonstration enhanced plans had a greater proportion of their enrollees (39 percent) in zero premium plans compared to demonstration plans (30.6 percent). When the small number of fixed capitation plan enrollees were removed, the differences are even greater. This suggests that non-demonstration plans were attracting larger proportions of enrollees to zero premium plans by offering their enhancements at no additional costs compared to regular MA benefits. These relative findings were also evident in 2006, though in this earlier year, all enhanced plans had greater proportions of enrollees in zero premium plans. We found that enhanced plans have virtually all their enrollment (99.2 percent) in zero deductible plans compared to basic alternative plans (75.2 percent). Reducing deductibles is one way to improve plan generosity, and in theory, the availability of capitated reinsurance payments under the demonstration might have allowed demonstration participating plans to reduce deductibles to attract enrollees. However, as noted, we found that virtually all enrollees in enhanced plans were enrolled in zero deductible plans. We did find that in 2007 non-demonstration enhanced plans as a whole had a slightly lower percentage of enrollees (98.6 percent) in zero deductible plans compared to demonstration plans (100 percent).

We found that the majority of enrollees in all enhanced plans, in fact, have no gap coverage in either 2006 or 2007; the proportion of enrollees with gap coverage improves somewhat between 2006 and 2007 however. In 2007, 59.2 percent of all enrollees in enhanced plans had no gap coverage; 33.2 percent were enrolled in plans with gap coverage for generics, and 7.6 percent had gap coverage for both generic and brand name drugs. Non-demonstration plans actually had a lower percentage of enrollees with no gap coverage (57.2 percent) compared to demonstration plan enrollees (61.8 percent). A larger proportion of enrollees in non-demonstration plans (37 percent) have access to generic only coverage compared to demonstration enrollees (28.2 percent). These findings suggest that compared to non-demonstration offerings of enhanced coverage, the reinsurance demonstration does not appear to have resulted in an increase in Part D enrollees with prescription drug coverage in the gap.

Did Demonstration Plans Experience Adverse or Favorable Selection?

The mean Rx-HCC risk score for non-duals enrolled in the Part D program is 1.00, compared to 0.95 for non-duals not enrolled in Part D. In other words, among non-duals, Part D enrollee drug costs are predicted to be 5 percent higher than for beneficiaries not enrolled in Part D. Thus even among non-duals, there appears to be some adverse selection into the Part D program, although to a lesser degree than for the Medicare population as a whole (duals + non-duals). Among enhanced plans, the mean risk scores are broadly similar for demonstration versus non-demonstration plans (0.99 versus 0.98), and this pattern holds for both enhanced PDP plans and for enhanced MA-PD plans. For basic and enhanced plans, the mean risk scores for PDP

versus MA-PD plans follow a similar pattern as for the Part D program as a whole, with the mean risk score for PDP plans substantially higher than for MA-PD plans.

For non-dual eligibles enrolled in Part D, the mean risk score for basic plans is higher than for enhanced plans (1.01 versus 0.98). Thus, even among non-duals, enhanced plans appear to be experiencing some favorable selection relative to basic plans. However, this last result might be an artifact of the distributions of basic and enhanced enrollment. For basic plans, PDP plans comprise the vast majority of enrollment (89 percent), whereas for enhanced plans, MA-PD plans comprise the majority of enrollment (57 percent). Given our finding of favorable selection for MA-PDs, it is not too surprising that the mean risk score for enhanced plans is lower than for basic plans. We found the mean risk scores for non-duals enrolled in PDP basic and enhanced plans are broadly similar (1.02 versus 1.03). Therefore, for non-duals enrolled in PDP plans, there does not appear to be selection bias for enhanced plans relative to basic plans. We found similar results for MA-PDs. The mean risk scores for MA-PD basic and enhanced plans are identical at 0.94. Thus for non-duals enrolled in MA-PD plans, enhanced plans do not seem to be experiencing a selection bias relative to basic plans. We find these results counterintuitive given the hypothesis that chronic users of prescription drugs will be more likely to enroll in enhanced plans. Further, these results are inconsistent with our site visit findings, in which demonstration plans claimed to have experienced adverse selection. Possibly enhanced plans are not a better deal for beneficiaries in poorer health because they "pay for" enhanced benefits with higher premiums.

What Factors Determined Part D Enrollment?

In general, the multivariate analysis of factors influencing Part D enrollment were consistent with what we found in the descriptive analysis. Noteworthy however were statistically significant results suggesting that among Part D enrollees, sicker beneficiaries are more likely to enroll in enhanced plans, and among enhanced plan enrollees, sicker beneficiaries are more likely to enroll in demonstration plans. Among Part D enrollees, sicker beneficiaries tend to enroll in enhanced plans more than basic plans (odds ratio = 1.29), meaning that if the risk score is increased by 1.00, the odds of enrolling in an enhanced plan increases by 29 percent. Similarly, among enhanced plan enrollees, sicker beneficiaries tend to enroll in demonstration plans more than non-demonstration plans (odds ratio = 1.11), meaning that if the risk score is increased by 1.00, the odds of enrolling in a demonstration plan increases by 11 percent.

Note however that although we found several statistically significant results, it is important to consider population averages as well as incremental effects holding other variables constant (which is what the regression coefficients show). Our multivariate finding on risk score makes some intuitive sense as beneficiaries with greater health care needs are more likely to need more extensive drug coverage, and hence more likely to choose a richer benefit package. However, while we do find evidence that sicker beneficiaries are more likely to enroll in enhanced plans, the substantive differences are small and arguably not large enough to be considered evidence of selection bias. Our descriptive analysis supports this conclusion, which showed that among non-dual Part D beneficiaries enrolled in PDPs, the mean risk score for enhanced plan enrollees was broadly similar to the mean risk score for basic plan enrollees, although slightly higher (1.03 versus 1.02).

7.5 Reinsurance Demonstration Impact on Medicare Expenditures and Utilization

As part of this evaluation, we conducted an analysis of 2007 Part D expenditures and utilization for non-enhanced versus enhanced coverage plans, and for demonstration versus non-demonstration enhanced plans. Though all reinsurance demonstration plans are, by definition, enhanced plans, we broadened our comparison to include non-enhanced plans so that we could consider whether trends and impacts we observed for the demonstration might be occurring in the full Part D program. Because beneficiaries receiving the Part D low-income subsidy are generally auto-enrolled in non-enhanced plans, these beneficiaries are excluded from the analysis sample. We compared beneficiary response to the different plan options by evaluating expenditures and utilization by the range of plan types. The report also analyzes expenditures and utilization in demonstration versus non-demonstration benefit plans by various beneficiary characteristics, including demographics, health status, disease groups, and drug classes.

Did the Reinsurance Demonstration Affect Medicare Expenditures and Utilization?

The descriptive analyses suggest that, as a whole, enrollees in demonstration enhanced plans have higher average annualized Part D total expenditures and utilize a higher average annual number of 30-day prescriptions compared to their non-demonstration enhanced plan enrollees. In addition, the same pattern generally holds for enhanced and non-enhanced plan enrollees, with enhanced plan enrollees having higher expenditures and utilization. These findings generally persist within most beneficiary characteristic groups, and across disease categories and drug classes.

Overall, Medicare beneficiaries enrolled in all (PDP and MAPD) demonstration enhanced plans had the highest total annualized mean expenditures ($1,916), compared to non-demonstration enhanced plans ($1,765) or non-enhanced plans ($1,764). Utilization rates (defined as the percentage of enrollees filling at least one prescription) varied only slightly between demonstration and non-demonstration enhanced plans. The analysis also considered the mean annualized number of prescriptions filled. Again, there was minimal variation between demonstration and non-demonstration enhanced plans. Overall, demonstration enhanced enrollees filled an average of 34.8 prescriptions per year, compared to 32.0 for the non-demonstration enhanced enrollees. Enrollees in all enhanced plans filled a larger number of prescriptions (33.2) compared to enrollees in non-enhanced plans (31.5). Similar patterns were noted for utilization as measured by mean number of 30-day prescriptions. Interestingly, across all these measures, enrollees in MAPDs across all plan benefit types had lower expenditures and had lower mean utilization rates compared to enrollees in PDP plans.

These average findings, however, for the combined sample of PDP and MAPD enrollees, mask different results when expenditures and utilization are analyzed separately for PDP enrollees and separately for MAPD enrollees. Whereas in the combined sample we find demonstration enhanced plans have higher average total expenditures per beneficiary, for the separate PDP and MAPD samples we find the opposite finding, i.e., demonstration enhanced plans have lower average total expenditures. For example, for the combined sample annualized total expenditures are $1,916 for demonstration enhanced plans and $1,765 for non-demonstration enhanced plans. However, for the PDP sample the expenditure means for demonstration and non-demonstration enhanced plans are $2,260 and $2,382, respectively, and

for the MAPD sample they are $1,378 and $1,444, respectively. The difference in findings between the combined sample on the one hand, and the two subpopulations (PDP and MAPD) on the other, which initially might appear to be counterintuitive, is actually explained by noting that the mean for the combined sample is an enrollment weighted average of the means for the separate PDP and MAPD samples. Given 61.1 percent of demonstration enhanced plan enrollees are in PDPs, whereas only 34.3 percent of non-demonstration enhanced plan enrollees are in PDPs, expenditures for PDP plan enrollees will be weighted higher for demonstration enhanced plans than for non-demonstration enhanced plans, and expenditures for MAPD plan enrollees will be weighted lower. We can conclude that while demonstration enhanced enrollees had higher total expenditures for the combined sample than did non-demonstration enhanced plan enrollees, the results contain variation and are highly sensitive to the distribution of enrollees in specific plan types (i.e., PDP vs. MAPD). Therefore, the descriptive results should be interpreted with some caution.

Did the Demonstration Induce Demand for Medicare Part D Services?

Multivariate regression models were estimated for Part D total expenditures and number of 30-day prescriptions. As expected, since the RxHCC risk score is an expenditure-weighted index of a beneficiary's diagnoses that predicts the relative risk of future Medicare Part D expenditures, it was a powerful predictor of both Part D expenditures and utilization. Compared to the lowest percentile risk score group (0-5%), the highest percentile group (95-100%) had $3,515 more total expenditures, and 58.8 more prescriptions. In addition, being enrolled in a PDP appears to impact total expenditures, with an estimated coefficient of $618, indicating other things equal, beneficiaries enrolled in a PDP plan have higher total Part D expenditures for covered drugs than do beneficiaries in MAPD plans (by $618). One possible reason for this is that MAPD plans integrate a beneficiary's health plan with their drug plan, and thus have a greater ability to manage their overall health care. In addition, more incentives might exist for MAPD enrollees to use generic drugs rather than brand name drugs.

The multivariate regression results showed that there is evidence for an induced demand effect of enhanced coverage plan offerings in 2007. Other things equal, enhanced plan enrollees have $269 more in total expenditures, and 2.3 more 30-day prescriptions. The induced demand effect appears to be mainly driven by being enrolled in any enhanced plan, not necessarily being enrolled in a demonstration enhanced plan. This last result might make sense when one considers that the plan benefit structures for demonstration enhanced plans are not substantially different than for non-demonstration enhanced plans. The evidence for an induced demand effect is stronger for PDP enrollees than it is for MAPD enrollees, and for total expenditures than for utilization. Thus we have only shown a limited finding of induced demand.

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