Over time, the costs associated with the Medicare program have increased steadily and have contributed to the growth in national health expenditures. For example, healthcare expenditures in the United States were almost $256 billion in 1980 and $724 billion in 1990, and they rose to $2 trillion in 2006. In 2009, healthcare spending was approximately $8160 per US resident and accounted for 17.6% of the nation’s gross domestic product (GDP); these figures were $8680 and 17.9%, respectively, in 2011. For Medicare alone, total expenditures in 2009 were approximately 3.5% of the GDP, or $509 billion, and are estimated to increase to 6.4% by 2084.¹

To address the rising drug costs, and to provide more comprehensive healthcare coverage, the Medicare Prescription Drug, Improvement, and Modernization Act, which created Medicare Part D, was implemented in 2006.¹ On its inception, more than 20 million seniors enrolled to receive prescription drug coverage.³ Medicare Part D plans are not required to include coverage for all drugs. Each plan can develop a formulary, which must include categories and classes of drugs that cover all disease states. Formularies must use the formulary that is found in the US Pharmacopeia as a model and include at least 2 drugs in 146 drug categories. Part D plans also cover biologic drugs, insulin and insulin...
KEY POINTS

► With the looming increase in enrollees, the Medicare program will need restructuring to improve healthcare for less money.

► The FEHBP has been suggested as a model for Medicare Part D, because of its cost-saving strategies and quality services, but no comparisons of these 2 programs are available regarding their drug coverage, cost-savings, and quality of care.

► This study compares the drug coverage and cost-sharing in 63% of Medicare Part D plans and 70% of the FEHBP plans.

► Based on this analysis, formulary coverage of the top drugs dispensed in 2009 averaged 84% in Part D plans versus an average of 94% in the FEHBP plans.

► Mean copayment for generic drugs in Part D plans was $4.53 compared with a mean of $7.67 in the FEHBP plans; the difference in mean copayment for brand-name drugs was not significant.

► Enrollment was the single strongest predictor of the number of drugs covered per therapeutic class; as enrollment increased, the number of drugs covered per therapeutic class increased.

► To avoid cutbacks in services, Medicare must explore ways to achieve better value for the money; the experience of the FEHBP suggests a possible means of accomplishing this objective.

A Central, Unanswered Question

An unanswered question that is central to this debate is how Medicare Part D and the FEHBP prescription drug plans coverage compare. To explore this question, this study compared prescription drug coverage offered in Medicare Part D and the FEHBP in 2009. The analysis focused on the consumer perspective, by examining differences in drug coverage and cost-sharing.

Specific advantages of the FEHBP include optional enrollment and broad eligibility requirements. In addition, the FEHBP uses community ratings as a disincentive for plans to determine coverage on the basis of beneficiary risk. Furthermore, the program offers more provider choice and access, increased rural access, greater achievements in cost control, and enhanced health benefits, by covering preventive services, dental services, and healthcare costs that are incurred abroad. For these reasons, the FEHBP has been cited by some as being superior to the Medicare program.

By contrast, some reports reveal opposing views on Medicare’s adoption of an FEHBP-type model. Several studies dispute the claim that adopting an FEHBP model would offer an improvement to the Medicare program. Before the implementation of Medicare Part D, the lack of coverage for prescription drugs made the FEHBP particularly attractive in comparison with Medicare. Now that Medicare Part D has been implemented, however, the debate has been renewed on the desirability of switching enrollees from Medicare to an FEHBP-type plan.

Methods

Medicare Part D Data Collection

Data were obtained from the Centers for Medicare & Medicaid Services (CMS) for January 2009 (changes to Medicare formulary are done once a year in January, hence the data in this study apply to the full year 2009). The initial sample of Medicare Part D prescription drug plans consisted of approximately 2500 prescription drug plans. Medicare Advantage plans were excluded, because separate data about prescription drug coverage were not available for those plans. After this exclusion, approximately 1893 stand-alone prescription drug plans remained. The percent and the cumulative percent of enrollees within each plan were calculated, and the plans were then ranked in terms of total enrollment. Beginning with the plans with the largest enrollment, the plans representing 63% of total Part D enrollment were selected for further consideration, resulting in a total of 232 stand-alone prescription drug plans.

For the excluded plans representing 37% of total enrollment, the range of enrollment was 16,697 to
### Table 1: Medicare Part D and the Federal Employees Health Benefits Program Plans Selected for Analysis, January 2009

<table>
<thead>
<tr>
<th>Formulary</th>
<th>Total enrollment (\text{as of January 2009, N})</th>
<th>Total enrollment,(^a) (%)</th>
<th>Cumulative (%)</th>
<th>Plans per formulary, (\text{N})</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Medicare Part D formularies</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AARP MedicareRx Preferred</td>
<td>2,716,518</td>
<td>15.6</td>
<td>15.6</td>
<td>31</td>
</tr>
<tr>
<td>Advantage Star Plan by RxAmerica</td>
<td>299,956</td>
<td>1.6</td>
<td>17.2</td>
<td>9</td>
</tr>
<tr>
<td>Blue MedicareRx</td>
<td>285,869</td>
<td>1.6</td>
<td>18.8</td>
<td>7</td>
</tr>
<tr>
<td>BlueRx</td>
<td>99,729</td>
<td>0.6</td>
<td>19.4</td>
<td>3</td>
</tr>
<tr>
<td>BravoRx</td>
<td>82,585</td>
<td>0.5</td>
<td>19.9</td>
<td>3</td>
</tr>
<tr>
<td>CIGNA Medicare Rx - Plan One</td>
<td>134,285</td>
<td>0.8</td>
<td>20.7</td>
<td>5</td>
</tr>
<tr>
<td>Community CCRx Basic</td>
<td>1,041,610</td>
<td>6.2</td>
<td>26.9</td>
<td>26</td>
</tr>
<tr>
<td>First Health Part D Premier</td>
<td>277,085</td>
<td>1.6</td>
<td>28.5</td>
<td>8</td>
</tr>
<tr>
<td>Health Net Orange</td>
<td>343,495</td>
<td>1.9</td>
<td>30.4</td>
<td>7</td>
</tr>
<tr>
<td>HealthSpring Prescription Drug Plan</td>
<td>171,719</td>
<td>0.9</td>
<td>31.3</td>
<td>5</td>
</tr>
<tr>
<td>Humana PDP Enhanced or Complete</td>
<td>1,432,200</td>
<td>8.2</td>
<td>39.5</td>
<td>30</td>
</tr>
<tr>
<td>Humana PDP Standard</td>
<td>1,445,988</td>
<td>8.1</td>
<td>47.6</td>
<td>27</td>
</tr>
<tr>
<td>Medco Medicare Prescription Plan</td>
<td>211,477</td>
<td>1.2</td>
<td>48.8</td>
<td>2</td>
</tr>
<tr>
<td>Medicare BlueRx Option 3</td>
<td>298,839</td>
<td>1.7</td>
<td>50.5</td>
<td>3</td>
</tr>
<tr>
<td>Prescription Pathway Bronze Plan</td>
<td>314,664</td>
<td>1.7</td>
<td>52.2</td>
<td>12</td>
</tr>
<tr>
<td>SilverScript Value</td>
<td>353,491</td>
<td>2.1</td>
<td>54.3</td>
<td>12</td>
</tr>
<tr>
<td>AARP MedicareRx Saver or UnitedHealth Rx Basic</td>
<td>831,943</td>
<td>4.9</td>
<td>59.2</td>
<td>20</td>
</tr>
<tr>
<td>WellCare Classic or Signature</td>
<td>476,022</td>
<td>2.6</td>
<td>61.8</td>
<td>20</td>
</tr>
<tr>
<td>WellCare Classic or Signature</td>
<td>200,462</td>
<td>1.2</td>
<td>63.0</td>
<td>2</td>
</tr>
<tr>
<td><strong>FEHBP formularies</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blue Cross and Blue Shield Standard Service Benefit Plan</td>
<td>2,020,621</td>
<td>50.2</td>
<td>50.2</td>
<td>1</td>
</tr>
<tr>
<td>Blue Cross and Blue Shield Basic Service Benefit Plan</td>
<td>391,541</td>
<td>9.7</td>
<td>59.9</td>
<td>1</td>
</tr>
<tr>
<td>GEHA Benefit Plan</td>
<td>215,833</td>
<td>5.4</td>
<td>65.3</td>
<td>1</td>
</tr>
<tr>
<td>NALC Health Benefit Plan</td>
<td>95,481</td>
<td>2.4</td>
<td>67.7</td>
<td>1</td>
</tr>
<tr>
<td>American Postal Workers Union Health Plan</td>
<td>81,626</td>
<td>2.0</td>
<td>69.7</td>
<td>1</td>
</tr>
</tbody>
</table>

\(^a\)Medicare Part D total enrollment across all plans was 17,313,409; FEHBP total enrollment across all plans was 4,026,575.

FEHBP indicates Federal Employees Health Benefits Program; GEHA, Government Employees Health Association; NALC, National Association of Letter Carriers; PDP, prescription drug plan.
Examination of Part D prescription drug data revealed that multiple plans had the same formulary. Therefore, the plans were collapsed by formulary. This yielded a final study sample of 19 formularies, representing 232 stand-alone prescription drug plans, as shown in Table 1. Of note, although there are more than 1000 prescription drug plans in Part D, enrollees typically choose among 45 to 57 plans, depending on the state in which they live.20

The CMS data included prescription drug plan formulary and pharmacy network files, with formulary and pharmacy network data for all Medicare prescription drug plans as of January 2009. The data provided by CMS did not include drug names, the generic or brand-name status of drugs, or therapeutic classes. The Florida Agency for Health Care Administration provided information on the drug names and the generic or brand-name status of drugs. The therapeutic class was determined and entered manually using the US Pharmacopeia drug classification system.21

**FEHBP Data Collection**

To derive the FEHBP data, a list of all plans serving beneficiaries of the FEHBP was obtained from the Office of Personnel Management for January 2009. The list included the plan name, plan type, and the number of enrollees. Additional information on the plans’ formularies was obtained from the respective plans’ websites.22-24

The initial sample of the FEHBP plans consisted of 222 prescription drug plans. These plans were ranked by total enrollment, then the percent and the cumulative percent of enrollees within each plan were calculated. Beginning with the largest enrollment, the plans representing 70% of total FEHBP enrollment were selected for the study, resulting in a total of 5 prescription drug plans and 5 formularies, as shown in Table 1.

The range of enrollment for the excluded plans or formularies was 1 to 63,346 enrollees. Similar to the case for Medicare Part D, although there are more than 200 prescription drug plans, the enrollees typically choose from among 12 to 20 plans, depending on the state in which they live.

**Comparison Benchmark**

Comparison of Medicare and the FEHBP plans revealed the need for an appropriate benchmark to compare the programs. IMS Health data were chosen to obtain a list of the top 200 drugs most frequently used, based on dispensed prescriptions, and the top 200 that are the most frequently used drugs based on sales in the United States.25

When the drug name was found on either list (ie, by dispensed prescriptions and by sales), the drug name was
Medicare Part D and the FEHBP: Prescription Drug Coverage

<table>
<thead>
<tr>
<th>Therapeutic class</th>
<th>Total drugs in class, N</th>
<th>Medicare Part D formulary coverage (mean covered ± SD), %</th>
<th>FEHBP formulary coverage (mean covered ± SD), %</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADHD agents(^a)</td>
<td>5</td>
<td>65 ± 27.36</td>
<td>96 ± 8.94</td>
<td>.001</td>
</tr>
<tr>
<td>Analgesics</td>
<td>13</td>
<td>98 ± 3.62</td>
<td>98 ± 3.58</td>
<td>.783</td>
</tr>
<tr>
<td>Antibacterials</td>
<td>16</td>
<td>93 ± 7.18</td>
<td>96 ± 8.50</td>
<td>.432</td>
</tr>
<tr>
<td>Anticancer agents</td>
<td>25</td>
<td>77 ± 15.50</td>
<td>85 ± 17.07</td>
<td>.353</td>
</tr>
<tr>
<td>Anticonvulsants</td>
<td>8</td>
<td>100 ± 0</td>
<td>100 ± 0</td>
<td>N/A</td>
</tr>
<tr>
<td>Antidementia agents</td>
<td>3</td>
<td>100 ± 0</td>
<td>93 ± 14.76</td>
<td>.374</td>
</tr>
<tr>
<td>Antidepressant agents</td>
<td>10</td>
<td>98 ± 4.19</td>
<td>98 ± 4.47</td>
<td>.961</td>
</tr>
<tr>
<td>Antipsychotic agents</td>
<td>9</td>
<td>98 ± 4.12</td>
<td>93 ± 14.76</td>
<td>.505</td>
</tr>
<tr>
<td>Antiretroviral/antiviral agents</td>
<td>10</td>
<td>100 ± 0</td>
<td>100 ± 0</td>
<td>N/A</td>
</tr>
<tr>
<td>Antianxiety agents(^a)</td>
<td>4</td>
<td>0 ± 0</td>
<td>95 ± 11.18</td>
<td>.000</td>
</tr>
<tr>
<td>Arthritis agents(^a)</td>
<td>5</td>
<td>93 ± 9.91</td>
<td>100 ± 0</td>
<td>.005</td>
</tr>
<tr>
<td>Blood glucose regulators(^a)</td>
<td>15</td>
<td>95 ± 6.62</td>
<td>100 ± 0</td>
<td>.004</td>
</tr>
<tr>
<td>Blood products/modifiers/volume expanders(^b)</td>
<td>12</td>
<td>72 ± 12.93</td>
<td>90 ± 18.22</td>
<td>.019</td>
</tr>
<tr>
<td>Cardiovascular agents(^a)</td>
<td>42</td>
<td>87 ± 8.62</td>
<td>97 ± 4.22</td>
<td>.003</td>
</tr>
<tr>
<td>Gastrointestinal agents(^a)</td>
<td>9</td>
<td>74 ± 19.25</td>
<td>96 ± 9.84</td>
<td>.005</td>
</tr>
<tr>
<td>Hormonal agents(^b)</td>
<td>15</td>
<td>82 ± 9.36</td>
<td>93 ± 8.17</td>
<td>.019</td>
</tr>
<tr>
<td>Metabolic bone disease agents(^a)</td>
<td>7</td>
<td>85 ± 11.33</td>
<td>100 ± 0</td>
<td>.000</td>
</tr>
<tr>
<td>Multiple sclerosis agents(^b)</td>
<td>4</td>
<td>93 ± 11.31</td>
<td>100 ± 0</td>
<td>.021</td>
</tr>
<tr>
<td>Muscle relaxants</td>
<td>3</td>
<td>77 ± 15.76</td>
<td>80 ± 29.91</td>
<td>.860</td>
</tr>
<tr>
<td>Ophthalmic agents(^a)</td>
<td>5</td>
<td>72 ± 10.15</td>
<td>100 ± 0</td>
<td>.000</td>
</tr>
<tr>
<td>Respiratory tract agents(^b)</td>
<td>21</td>
<td>86 ± 9.63</td>
<td>98 ± 4.47</td>
<td>.017</td>
</tr>
<tr>
<td>Sedative/hypnotic agents</td>
<td>3</td>
<td>84 ± 20.33</td>
<td>93 ± 14.76</td>
<td>.292</td>
</tr>
<tr>
<td>Vaccines</td>
<td>5</td>
<td>83 ± 7.49</td>
<td>52 ± 46.04</td>
<td>.205</td>
</tr>
</tbody>
</table>

\(^a\)Difference between group means significant at .01 confidence level.

\(^b\)Difference between group means significant at .05 confidence level.

ADHD indicates attention-deficit/hyperactivity disorder; FEHBP, Federal Employees Health Benefits Program; N/A, not available; SD, standard deviation.

**NOTE:** This table lists the therapeutic classes and the mean percentages of drugs covered in that class. If <3 drugs are in a therapeutic class, that class was excluded from this analysis to ensure accurate comparison of Medicare Part D and the FEHBP. The excluded classes comprised 16 drugs, including 1 antimigraine; 2 vitamins; 2 erectile dysfunction agents; 2 radiography agents; 1 central nervous system agent; 1 phosphate binder; 1 anti-Parkinson agent; 2 smoking-cessation drugs; 2 transplant agents; and 2 urinary tract antispasmodics.

Only listed once. In addition, brand-name drugs with generic equivalents were added to the list. This means that if a brand-name drug was not listed on the formulary but its generic equivalent was, that drug was considered to be listed on the formulary. This process yielded a final list of 266 drugs (ie, 134 duplicated drugs were deleted), representing a total of 23 therapeutic classes. This list was further verified through literature review to ensure that these drugs represented at least 75% of all Medicare expenditures (Figure).\(^{26-29}\)
Statistical Analysis

The data were entered into the Statistical Product and Service Solutions 17.0, and an independent samples t-test was utilized to determine whether there were significant differences between Medicare Part D and the FEHBP prescription drug plans regarding the proportion of drugs covered, the proportion of brand-name or generic drugs covered, therapeutic classes, copay, and coinsurance.

Copay was defined as the dollar amount that enrollees pay for prescription drugs, and coinsurance was defined as the percentage that enrollees pay for drugs.

A negative binomial regression analysis was also performed to address the possibility that there were other variables that might have affected the difference between the 2 programs. For the regression analysis, the dependent variable was the number of drugs per therapeutic class, and the independent variables were type of plan (Medicare Part D or FEHBP), premium, copay, coinsurance, tier, enrollment, and therapeutic class.

Results

Overall, for the 19 Medicare Part D formularies that were analyzed (with 232 plans), formulary coverage of the top drugs dispensed and sold in the United States ranged from 72% to 94%; the range was 85% to 99% for the 5 FEHBP formularies (and 5 plans) that were examined (Table 2).

On average, Medicare Part D plans covered 84% of the top drugs dispensed and sold in the United States compared with approximately 94% of the top drugs covered by the FEHBP plans ($P<.05$). For example, for the AARP MedicareRx Preferred prescription drug formulary, which represents the Part D formulary with the highest enrollment, 249 of the 266 (94%) top drugs were covered. By contrast, in the FEHBP formulary with the highest enrollment—Blue Cross and Blue Shield Service Benefit Plan Standard option—252 of the 266 (95%) top drugs were on the formulary. For formularies representing the least amount of enrollees (approximately 80,000 beneficiaries each), Medicare Part D’s BravoRx formulary and the FEHBP’s American Postal Workers Union formulary, the percentages of drugs covered were 80% and 99%, respectively.

Examination by therapeutic class showed that the average percentage of drugs covered per therapeutic class ranged from 0% to 100% for Medicare Part D formularies and from 52% to 100% for the FEHBP formularies (Table 3). The anxiolytics therapeutic class showed the greatest difference in drug coverage between formularies; among Medicare Part D formularies, none of the drugs was covered in this class, whereas the FEHBP formularies covered, on average, 95% of these drugs.

In contrast, for some therapeutic classes, the average percentage of drugs covered was the same for Medicare Part D and for the FEHBP. For example, the top drugs in the anticonvulsant and antiretroviral/antiviral agent therapeutic classes were completely covered by Medicare Part D plans and the FEHBP plans. Of the 23 therapeutic classes analyzed in this study, Medicare Part D plans and the FEHBP plans covered at least 1 drug in each class, with the exception of the anxiolytics class.

Analyses using the independent samples t-test revealed significant differences in drug coverage for the following 12 of the 23 therapeutic classes—attention-deficit/hyperactivity disorder (ADHD) agents; anxiolytics; arthritis agents; blood glucose regulators; blood products, modifiers, volume expanders; cardiovascular (CV) agents; gastrointestinal (GI) agents; hormonal agents; metabolic bone disease agents; multiple sclerosis agents; ophthalmic agents; and respiratory tract agents (Table 3). In all of these therapeutic classes, the FEHBP was shown to provide broader drug coverage ($P<.05$).

Table 4 shows how drug coverage differed by branded versus generic status. On average, the FEHBP plans covered approximately 98% of all generic drugs (among generic drugs only) versus approximately 90% for Medicare Part D plans. Similarly, Medicare Part D plans covered, on average, 82% of brand-name drugs (among brand-name drugs only) compared with an average of 93% in the FEHBP plans ($P<.05$).

The results of the negative binomial regression for the overall model showed that enrollment was the single strongest predictor of the number of drugs per therapeutic class. As enrollment increased, the number of drugs per therapeutic class increased. Furthermore, the number of drugs per therapeutic class was greater for tier 2 brand-name drugs compared with tier 1 generic drugs. The coefficients of copayment, coinsurance, and premium were not statistically significant (Table 5).

For the anxiolytics therapeutic class, the FEHBP plans provided more drugs and other factors held constant. In addition, the respiratory tract agents therapu-
tic class was borderline significant ($P = .067$) in favor of the FEHBP providing greater coverage. The remaining therapeutic classes (ie, ADHD agents, analgesics, antibacterial agents, anticancer agents, anticonvulsants, antidepressants, antipsychotics, arthritis agents, blood glucose regulators, CV agents, GI agents, and hormonal agents) showed no difference in drug coverage among plans when controlling for enrollment, premium, tier, coinsurance, and copayment.

When comparing plans based on whether they provided cost-sharing through copayments versus coinsurance, results showed that Medicare Part D plans and the FEHBP plans utilized fixed-dollar copayments more often than coinsurance for tier 1 generic drugs. By contrast, for tier 2 brand-name drugs, Medicare Part D plans were more likely to utilize copays, whereas the FEHBP plans were more likely to utilize coinsurance.

For the Medicare Part D plans, the mean copayment for tier 1 generic drugs was $4.53 (range, $0-$8) compared with a mean of $7.67 for the FEHBP plans (range, $5-$10; $P < .05). The difference in tier 2 brand-name drugs coverage was nonsignificant ($P = .901$). The mean rate for Medicare Part D plans that utilized coinsurance for tier 1 generic drugs was 17% compared with a mean of 20% for the FEHBP plans ($P < .01$). For the Medicare Part D plans that utilized coinsurance for tier 2 brand-name drugs, the mean was 26% compared with a mean of 34% for the FEHBP plans ($P = .066$).

**Discussion**

Medicare Part D and the FEHBP both provide services to millions of enrollees, yet they have different methods.
of operation. Medicare has been criticized for its lack of provision of services. For example, 9 of 10 Medicare enrollees purchase supplemental coverage. Some advocate for reforming Medicare to look more like the FEHBP, citing the FEHBP’s exemplary benefits, service, catastrophic limits, cost control, lack of fraud and abuse, and protection against interest group politics as advantages. Evidence has been lacking on the full comparison of these programs, particularly given the challenges faced by a growing elderly population in the United States.

The findings from this study reveal significant differences between the 2 programs. Analyses by therapeutic class have shown that the anxiolytics therapeutic class, which was composed entirely of benzodiazepine drugs (ie, alprazolam, clonazepam, diazepam, and lorazepam), showed the greatest difference in drug coverage between formularies. Among Medicare Part D formularies, none of the drugs was covered in this class, whereas the FEHBP formularies covered, on average, 95% of them. This finding may be explained by the difference in enrollee population characteristics of the 2 programs (ie, the majority of Medicare beneficiaries are older vs the FEHBP, which includes working-age adults and those aged ≥65 years). For example, some experts suggest that anxiolytics are not recommended for use in the elderly, whereas others recommend their use, but only with caution.

The decision of whether to provide coverage for anxiolytics may also be based on the associated side effects and the addictive properties of the drugs. By contrast, recent studies reveal that the exclusion of anxiolytics from formularies may decrease use, but it may not result in better patient outcomes, specifically a decrease in fracture risk.

The decision of whether to provide coverage for anxiolytics may also be based on the associated side effects and the addictive properties of the drugs. By contrast, recent studies reveal that the exclusion of anxiolytics from formularies may decrease use, but it may not result in better patient outcomes, specifically a decrease in fracture risk.

To shed further light on the coverage of anxiolytics and other classes of drugs, separate regression analyses were conducted, with the dependent variable defined as each therapeutic class (Table 5). The only 2 classes that showed a significant difference with respect to the type of plan were the anxiolytic and respiratory drug classes, with the FEHBP providing broader drug coverage.

This shows that comparison of the FEHBP and the Medicare Part D program is complex; that is, many factors should be considered for such a comparison. The independent variables used in these analyses (ie, premium, tier, enrollment, copay, coinsurance, and therapeutic class) had an effect on coverage differences between the 2 programs.

In addition, it is clear that coverage may be broader for one program versus another, but such coverage generosity depends on the therapeutic class. Regulation and other factors could possibly affect the inclusion of drugs on a formulary. With regard to premium, no significant differences were found. A review of the literature revealed that premiums are heavily dependent on the degree of cost-sharing. Specifically, some authors note that deductibles have the greatest impact on premiums. Perhaps including deductibles in the regression analyses would have resulted in significant differences for the variable premium.

A recent examination of health plans in New York showed that changes in deductibles and cost-sharing can result in premium reductions of 50% or more. Other studies have shown that, although copay and coinsurance are used to deter enrollees from seeking services, premiums do not directly affect the number of services that are utilized.

Furthermore, studies show that savings via cost-sharing result in decreased premiums, but the extent of savings depends on the type and the amount of cost-sharing. Therefore, it is understandable that results in the present study regarding premiums were nonsignificant. Future research that considers deductibles and fluctuations in cost-sharing may yield more significant premium-related results.

Although fluctuations in cost-sharing were not explored, copay and coinsurance were included in the regression model as factors associated with the number of drugs covered per therapeutic class. A positive association was found for the number of drugs covered per therapeutic class and the copay for the ADHD and anticancer drug classes. An increase in copay by $1 resulted in an increase in the number of drugs covered in these classes. In addition, coinsurance was a significant predictor of the number of drugs covered per therapeutic class for ADHD, anticancer, and respiratory tract drugs. The number of ADHD and anticancer drugs rose as coinsur-
ance increased; yet, the number of respiratory covered
drugs decreased as coinsurance increased.

This study shows that the relevance of individual
therapeutic classes should be considered in the interpre-
tation of cost-sharing findings. In a study by Avalere
Health and the American Cancer Society Cancer
Action Network that examined Medicare Part D plan
cost-sharing for cancer drugs, it was noted that most
Medicare plans place cancer drugs on higher tiers and
that the coinsurance maximum is 33%.37 Earlier results
of the regression analysis revealed that an increase in
copay by $1 resulted in an increase in the number of
anticancer agents. Therefore, both enrollees and plans
can benefit from this type of benefit structure. Beneficiaries pay more through higher copays and coin-
surance, yet they receive more drugs as a result. Similarly,
plans provide more drugs, yet beneficiaries use less.38

For the variable tier, a significant difference was
found for the ADHD agent and anticancer agent classes.
For both classes, the number of drugs per therapeutic
class was greater for tier 2 brand-name drugs compared
with tier 1 generic drugs. It is interesting that more
brand-name drugs were listed on the formularies than
generic drugs, considering that generic drug promotion is
often used as a cost-containment measure.39

Finally, variable enrollment was included in the re-
gression analyses as a factor that would greatly affect the
number of drugs per therapeutic class. For the initial
overall model, enrollment was the single strongest pre-
dictor of the number of drugs per therapeutic class. As
enrollment increased, the number of drugs per therapeu-
tic class grew. Specifically, an increase was shown in the
anticancer agents; blood products, modifiers, volume
expanders; CV agents; GI agents; and respiratory tract
agents classes.

Both FEHBP and Medicare Part D plans offer an open
enrollment season to beneficiaries. In 2009, Walton
Francis commented that Medicare Part D’s offering of an
open enrollment season was a direct result of learning a
lesson from the FEHBP.4 The FEHBP and Medicare Part D
allow beneficiaries to disenroll in their current plan and
to change to another plan once annually between
November and December. During that period, if enroll-
ees dislike their plan for any reason, they can choose
another plan without penalty.

Results of the regression analysis revealed that for 5
therapeutic classes, enrollment was positive and statisti-
cally significant. Therefore, for these classes, as enroll-
ment increased by 1 person, the number of drugs offered
in these classes increased. This finding becomes especial-
ly important during the discussion when prescription
drug plan decision makers are trying to find ways to re-
design themselves for improvement. For example, from
this finding, we can learn that as Medicare seeks to de-
termine ways to contain costs, the best time to examine
drug coverage is after the open enrollment season.

Few studies have examined the FEHBP or
Medicare Part D coverage of therapeutic
drug classes. More up-to-date studies are
needed related to access to anticancer
drugs and to Medicare coverage to address
the current debate on whether Medicare
provides sufficient coverage for
anticancer drugs.

Furthermore, plans may find that after the open en-
rollment season, it is the best time to negotiate drug
coverage with manufacturers. Plans can also tell enroll-
ees that the list of drugs offered when they join will only
increase after enrollment. The enrollees can benefit by
knowing that the drugs in the anticancer agent; blood
products, modifiers, volume expanders; CV agent; GI
agent; and respiratory tract agent therapeutic classes will
only increase in number after they join. Studies show
that the number of enrollees opting to change plans is
very low for the FEHBP.4 Some have stated that this is a
result of enrollee brand loyalty and older age.

Few studies have examined the FEHBP or Medicare
Part D coverage of therapeutic drug classes. Bowman and
colleagues examined formulary coverage in Medicare
Part D plans for anticancer drugs, showing that the
majority of cancer drugs were covered by almost all
Medicare Part D plans.40 More up-to-date studies are
needed related to access to anticancer drugs and to
Medicare coverage to address the current debate on
whether Medicare provides sufficient coverage for anti-
cancer drugs.

Gellad and colleagues examined Medicare Part D
plan coverage of angiotensin receptor blockers (ARBs),
which are categorized under the CV agent class.41
Results showed that all Medicare Part D prescription
drug plan formularies included at least 1 ARB, and 35%
of the plans covered all 7 ARBs discussed in the study.41

Consistent with previous research, our study also
shows that Medicare Part D plans cover a large number
of anticancer and CV drugs. Tseng and colleagues re-
ported on Medicare Part D plan coverage related to GI
drugs, CV drugs, respiratory agents, antidepressants,
blood glucose regulators, and analgesics classes; their
findings reveal that the greatest coverage (85%-90% of
Part D plans) was for CV agents.39 However, the authors
concluded that less than 50% of the drugs examined (34 of 75) were widely covered by Medicare Part D plans.19

Although mostly found in published reports, broad coverage of formulary drugs has also been shown within therapeutic classes in the FEHBP. A 2003 US Government Accountability Office (GAO) report shows that FEHBP enrollees generally have unrestricted access to prescription drugs.32 Furthermore, formularies are not considered to be overly restrictive, based on the study’s findings on most major therapeutic drug categories.42

As for coverage of brand versus generic drugs, a 2007 study by the Lewin Group reveals that Medicare Part D plans covered more of the 132 benchmark brand-name drugs (128, or 97%) compared with the FEHBP (125, or 95%).43 However, the researchers did not conduct any statistical analyses43; therefore, it is impossible to determine any significant difference between the 2 groups. Tseng and colleagues found that Medicare Part D plans covered 90% of generic drugs, but they did not examine the FEHBP.39

The reason that a drug is included on a formulary can be complex. A 2010 GAO report on specialty drugs for the FEHBP and Medicare Part D examined the reasons why some drugs were included on the formulary and why others were not.44 The findings revealed that Medicare Part D plans considered limited ability to negotiate price concessions with manufacturers, low utilization for some drugs, and CMS’s US Pharmacopeia–guided formulary requirements were barriers to inclusion of drugs on formulary.44 The conclusions drawn from this report are noted with caution, given the unique nature and different set of issues surrounding specialty drugs.

Overall, the findings of the bivariate analysis in this present study revealed that the FEHBP provided broader drug coverage than the Medicare Part D program. Some of the results of the bivariate analysis disappeared in multivariate analysis, revealing only a small difference between the 2 programs and one that only persisted within specific therapeutic classes. This difference in findings using the 2 different analytical methods may be useful to various groups.

For example, consumers may be interested in the actual number and the kind of drugs on their formulary, so they may find the t-test results useful. Other consumers may find copay and coinsurance to be important and may focus on regression results. Health plan providers may be more interested in how factors such as premium, copay, coinsurance, tier, and enrollment affect drug coverage as they make complex decisions on which drugs to include on their formulary.

Limitations

Several limitations should be considered in interpreting the findings of this research. First, data were not available on the demographics of enrollees within each plan. Although factors such as age, income, sex, race, and employment status may affect the results, only the largest plans were used in this study, and clinical needs can be extrapolated from general populations.

Second, caution should be used in the interpretation of results that come from the cross-sectional nature of the data. Plans are subject to change over time. The data used in this research represent coverage in the year 2009. Therefore, these data may not capture the full impact of drug coverage in 2013.

Third, not all Medicare Part D and FEHBP plans were included in the study. Nevertheless, the analyses included the top 63% prescription drug plans in Medicare Part D and 70% of those in the FEHBP. This represents a considerable increase from previous studies, which only compared a maximum of 3 Medicare Part D and FEHBP prescription drug plans.40,41,43

Conclusion

By the year 2030, the United States is expected to have 71 million persons aged ≥65 years.46 For the first time in history, the United States may have more elderly individuals than working individuals. Many projections indicate that Medicare will not be able to deliver promised benefits to the next generation of retirees without making changes to the program.40

Policymakers and healthcare professionals are interested in recommendations to address the anticipated needs of older persons. To avoid extreme increases in payroll taxes and other revenues or major cutbacks in services, Medicare must explore ways to change the healthcare system to achieve better value for the money. The experience of the FEHBP suggests a possible means of accomplishing this objective.

There are lessons here to be gleaned for both Medicare Part D and the FEHBP. Important areas for future research in the comparison of these 2 programs are the role of demographic factors in prescription drug coverage, the market behavior of prescription drug plans, the impact of increasing oral drugs for classes once administered parenterally (hence reduced costs), and health outcomes associated with drug coverage.

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Medicare Part D and the Federal Employees Health Benefits Program

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POLICYMAKERS: Policy analyses of in-place federal programs tend to wane over time, and it seems that ongoing policymaking often fails to sufficiently regard historical precedents. At first, interest is high and some funding may be available for research, but, even when they are known to be “successful,” programs are often not explored to extract key learning, as we may likely see with aspects of the Affordable Care Act (ACA). Reflective policymaking that is based on health services research is most important in today’s healthcare system.

In this article on Medicare Part D and the Federal Employees Health Benefits Program (FEHBP) comparison of prescription drug coverage, Dr. Lovett probes drug coverage issues and attempts to examine cost-sharing. By design, both programs rely on the marketplace with loose overarching regulatory structures. Over the years, the FEHBP has been known to be cost-saving for quality care, with high employee acceptance. Its functionality, nevertheless, extends beyond mere drug policies, because of the similar character of its participating plans that bid for contracts. Medicare Part D plans share a heterogeneity, and it has taken a few years to become ready for health services research to assess the program’s effectiveness and patient outcomes.

HEALTH PLANS/RESEARCHERS: This article by Dr. Lovett nicely highlights the programmatic differences in plan coverage, enrollment, premiums, copayments and coinsurance, tiers, and therapeutic classes. Yet, we should be mindful that the served populations differ dramatically (families of federal employees vs the much more vulnerable aged and disabled). Further clinical studies on benefit design would serve to capture what works best in the ongoing marketplace tinkering with drug benefits that private and public payers are pursuing.

Such a direction may yield wisdom in formulating better policies for health insurance exchanges. Accountable care organizations (ACOs) could become experimental laboratories to test benefit designs for differing populations across the United States and across disease states. Pharmacy and Therapeutic Committees may be natural settings for initiating studies to address puzzling cost and care issues within formularies. Evidence-based investigations should be aimed at being relevant to ongoing public policy implementation.

It must be noted that the FEHBP provides more than an insurance mechanism; it is embedded within delivery of care systems, as hopes for the ACOs are also intended. Medicare Part D and the new drug benefit designs under the ACA, along with Medicaid programs, should be carefully scrutinized and critiqued as our nation more diligently embarks on the implementation of health reform. Organized systems of care delivery have proved to be superior for population-based health, as better Medicare Advantage plans can demonstrate in learning from practice.

The FEHBP may be a possible model for addressing some drug coverage for savings in Medicare, but these 2 government programs are both complex and still differ greatly. The study’s focus on varying uses in drug classifications and coverage point to the need for more detailed analyses in such investigations.

Although issues remain on the suitability of FEHBP-type approaches (eg, a more costly vulnerable patient group) for Medicare reform, this study goes a long way to demonstrate that prudent means of reorganizing care through health services research are superior to political fiat for cost-cutting.