Medicare Health Maintenance Organization Benefits Packages and Plan Performance Measures

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This article reports the results of an analysis of the relationship between supplemental benefits offered by Medicare+Choice (M+C) plans and their plan performance ratings. We examined two measures of plan performance: (1) plan ratings as reported in the Medicare Managed Care (MMC) Consumer Assessment of Health Care Study (CAHPS®), and (2) disenrollment rates. The results of our analysis indicated that variations in plan supplemental offerings have little impact on enrollees' plan performance ratings—both overall ratings and access to care measures. Further, disenrollment rates were found to be more sensitive to the availability of alternative M+C plans, either in general, or for specific benefits than to variations in benefit offerings.

INTRODUCTION

The development of improved methods to distinguish levels of quality among health plans has sparked increasing interest among the health research and health policy communities. Methods of measuring plan performance, such as plan satisfaction and disenrollment patterns, could conceivably be used to provide consumers sufficient information to make rational choices about their health plans. As purchasers, employers and government alike need access to reliable information to assist them in monitoring and assessing performance of health plans with which they contract.

A number of factors could affect measures of plan performance, including characteristics of the plan enrollee as well as features of the plan itself. Various factors may potentially have an impact on health plan performance, as ratings may vary across demographic lines and by health status. The relative generosity of plan benefits could affect beneficiaries' ratings of their health plan and decisions to stay with or disenroll from their plan. Health care plans' participation in the M+C program, with its varying set of benefits across plans, provides an excellent opportunity to examine the relationship between plan benefits and performance.

The purpose of this analysis is to examine the effect of benefits offered by Medicare plans in addition to those covered by fee-for-service (FFS) Medicare (i.e., supplemental benefits) on two measures of plan performance—consumers' plan ratings, and plan disenrollment rates.[1] While disenrollment may occur for a number of reasons unrelated to the plan itself, this study will focus specifically on the patterns of exit decisions of voluntary disenrollees to potentially identify a corollary measure of plan performance therein. The research addresses the importance of specific benefits, the effect of benefits on plan ratings, and how these factors may differ across different subgroups

The authors are with BearingPoint, Inc. The research for this article was supported under HCFA Contract Number 500-95-0057 (TO#9). The views expressed in this article are those of the authors and not necessarily reflect the views of BearingPoint, Inc., or the Centers for Medicare & Medicaid Services (CMS).

[1] Plans offer supplemental benefits in instances where Medicare payment rates exceed the cost of providing these benefits, plans can either return the difference to the Medicare Program or offer additional benefits of actuarial equivalent value.

of the beneficiary population. Specifically, this article addresses the following research questions:

- Does offering specific supplemental benefits affect ratings of plan performance?
- Which benefits have the greatest effect on plan performance ratings?
- Do supplemental benefits have a greater effect on performance ratings for certain enrollee subgroups? If so, which benefits matter the most to subgroup members, and how does this set of benefits differ from those most important to the general enrolled plan population?

BENEFITS AND SATISFACTION

This section briefly reviews the literature on the relationships between health plan benefits and the two plan performance measures analyzed in this study—plan satisfaction and plan disenrollment. As this discussion illustrates, a body of literature exists that examines differences in plan satisfaction and disenrollment rates. However, little attention has been paid to the role that variations in benefit offerings might play in explaining these differences.

Satisfaction

Studies of plan satisfaction ratings among Medicare beneficiaries have primarily focused on the contrast between satisfaction levels attributed to Medicare health maintenance organizations (HMOs) and traditional FFS Medicare. For the most part, the literature has not established striking differences in satisfaction among beneficiaries in these two groups. Some differences, however, have been established between Medicare HMOs and FFS Medicare that yield some insight into the relationship between plan benefits and satisfaction.

Comparisons between HMO plans and FFS Medicare have established several distinct differences in beneficiaries' satisfaction ratings. One difference in satisfaction relates to cost of care, with HMO enrollees more satisfied with the cost of their health care than were their counterparts in FFS Medicare. In contrast, FFS beneficiaries tend to be more satisfied with specific plan benefits, such as the provision of home health care (Schlesinger, Druss, and Tracey, 1999). One study of Medicare beneficiaries found HMO enrollees to be distinctly less satisfied with certain aspects of care than were FFS beneficiaries, including explanations of care, attention received as a patient, personal interest taken in their care, and respect for privacy (Brown et al., 1993).

Among Medicare HMO enrollees, studies have found dissatisfaction with certain plan features attributed to access to care as well. For example, HMO enrollees were less likely than their FFS counterparts to express high satisfaction with access-related satisfaction measures, such as ease of making appointments by telephone or with a physician of choice, and with appointment waiting times (Brown et al., 1993).

In comparing FFS Medicare with HMO Medicare plans, it is unclear the degree to which FFS Medicare ratings are also capturing beneficiaries' experiences with benefits covered by supplemental insurance plans, such as Medigap policies. For some benefits, such as home health care services or prescription drugs, supplemental plans will account for a substantive portion of the services provided. As such, beneficiary ratings of these specific benefits will be based on their combined FFS Medicare and supplemental plan experiences.

Given this qualification, it has been found that more beneficiaries favor the benefits of FFS Medicare, although higher satisfaction levels have been given to

HMOs by beneficiaries who prefer lower HMO plan cost-sharing requirements (Schlesinger, Druss, and Tracey, 1999). Within HMOs, beneficiaries were most likely to be dissatisfied with plan features related to quality of care and access to care. Enrollee subgroup populations, such as those with self-reported frail or poor health and those with serious or chronic health problems demographics are less satisfied with their Medicare HMO than is the general enrollee population (Nelson et al., 1996; Nelson et al., 1997; Riley, Ingber, and Tudor, 1997; Barents Group, 2000a, b). Finally, a positive association has also been found between age and favorable plan ratings (Lee and Kasper, 1998; Barents Group 2000a, b).

In general, the literature on health plan satisfaction has not revealed a clear relationship demonstrating the direct effect of specific benefit features on satisfaction. An analysis of the CAHPS® survey of MMC beneficiaries found a marginal, though statistically significant, negative correlation between some health plan performance ratings and prescription drug benefits, which might be reflective of dissatisfaction with the generosity of this benefit (Barents Group, 2000b).

Disenrollment

The focus of this analysis is on Medicare HMO plan members who voluntarily disenroll from their health plan. In contrast, involuntary disenrollees, who account for nearly 50 percent of disenrollees, are those who disenroll due to death, loss of eligibility, a change of residence outside of the plan's service area, a plan's withdrawal from the Medicare Program, or a reduction in a plan's service area.

The primary reasons cited in earlier studies by HMO disenrollees included dissatisfaction with plan physicians, financial considerations, and access problems (Nelson et al., 1996).[2] Access problems and the extent of emergency care coverage have also been found to play key roles (Office of the Inspector General, 1995; Morgan et al., 1997). Finally, one study contends that consumer preferences for health plans are driven first by cost, then by coverage (Booske, Sainfort, and Hundt, 1999).

Disenrollment has been found to vary across demographic attributes and health status. Beneficiaries most likely to disenroll from managed care are black persons, Medicare disabled, low-income beneficiaries, and those in fair to poor health with higher use of services (Porrell et al., 1992, Nelson et al., 1996). A Medicare Current Beneficiary Survey (MCBS) analysis of minority populations disenrolling from managed care plans showed disenrollment varied by race, with higher rates for black enrollees and other races than for white enrollees. This study showed that access problems tend to affect sick and vulnerable subpopulations disproportionately, and their high disenrollment rates may reflect a greater dissatisfaction with care (Riley, Ingber, and Tudor, 1997).

Finally, some evidence exists to support the hypothesis that benefits affect disenrollment, though changes in benefit structure cause some difficulties in linking benefit shifts themselves as reasons for disenrollment. A change in the benefit structure of M+C plans may be responsible for a reduction in plans' enrollment rates; lower enrollment figures in M+C plans were observed after some plans changed from no premium to a standard monthly premium, and after beneficiaries were charged a copay for prescription drugs after previously

[2] The Medicare Disenrollment CAHPS®, which commenced in spring 2000, will contain additional more recent information on reasons for disenrolling from M+C plans. Results from analysis of these data, however, were not available for inclusion in this discussion.

incurring little or no prescription copay (Pretzer, 2000). A U.S. General Accounting Office (1998) survey of Medicare HMOs, finding a similar trend in disenrollment data, suggested that higher disenrollments could be linked to a trend of less-generous benefits offered by Medicare HMOs, among other possibilities.

METHODS

Data

The primary data source for this analysis was the 1999 MMC CAHPS®, which is an annual survey of MMC plan enrollees that is designed to collect information on survey respondents and ratings of their health plan's performance, both in general and for specific measures of plan performance. This file consists of approximately 150,000 MMC plan enrollees who were enrolled in their plan for at least 6 months prior to the survey. A total of 338 managed care plans are represented in this file.

This file was augmented with data from a number of sources to characterize plan disenrollment rates, benefit offerings, and market attributes. Plan-level voluntary disenrollment rates for 1999 were provided by CMS. Benefits data came from the 1999 Medicare Compare database. In instances where plans offered multiple supplemental benefits packages it was not possible to determine the specific package selected by an enrollee.[3] In these instances, we assumed that enrollees would act as economically rational purchasers and select a package with the greatest value. Under this assumption, in these instances we assigned enrollees to the most generous benefit package among those with the lowest supplemental premium.[4] Table 1 details the benefits selected for analysis and what services each benefit covers. This benefit file was matched with the MMC CAHPS® Survey file by the respondents' State and county code as well as their plan's contract identification number. Approximately 4 percent of the survey respondents were excluded from the resulting analysis due to an incomplete Medicare Compare database (12 plans were missing benefits information) or because the enrollees were living outside of their plan's operating service area.

Finally, additional information characterizing plans and their operating markets was obtained from various CMS files, including the managed care monthly reports, market penetration reports, and the plan service area file.

Analytic Approach

The analytic approach consisted of two elements. The first was selection of the specific beneficiary subpopulations for the analysis. The second element was the specific statistical approach.

Analysis Groups

For this analysis we examined several subpopulations of M+C plan enrollees, as well as all enrollees. As previously discussed, past research has found that certain subpopulations of enrollees may differ from the general enrolled population in terms of potential health care needs and are more likely to rate their plans differently as well. Further, disenrollment rates for these subpopulations might exhibit similar variations. The specific subgroups examined

[3] Based on tabulations from the plan benefit package database, approximately 25 percent of plans offer a single benefits package, 29 percent offer two packages, and 46 percent offer three or more packages.

[4] It should be noted that alternative package assignment rules could result in different empirical findings on the effects of specific benefits on plan ratings.

Table 1

Definitions of Medicare+Choice Plan Benefits Examined

Benefit	Description
Premium	The amount beneficiaries pay each month in addition to the Medicare Part B monthly payment of $45.50.
Prescription Drugs	Beneficiary has coverage—at no additional monthly cost. This coverage may vary for generic or brand name drugs and may include copayments and limits.
Physical Exams	Beneficiary has coverage—this may include limits on the number of exams with an additional per exam copayment.
Vision Services	Beneficiary has coverage—this may include a limited number of eye exams with an additional per exam copayment as well as coverage for all or a portion of costs for glasses or contacts.
Dental Services	Beneficiary has coverage—this may include limits on the number of oral exams with an additional per exam copayment.
Hearing Services	Beneficiary has coverage—this may include limits on the number of hearing exams and routine hearing tests as well as coverage for all or a portion of hearing aids.
Health Education	Beneficiary has coverage—this may include a limited number of classes and an additional copayment may be charged.

SOURCE: KPMG Consulting, Inc.

were:[5] under 65 disabled; aged beneficiaries with limited independence and self-reported fair/poor health status; medicaid buy-ins; black persons; Hispanic/Latinos; and Asians, Pacific Islanders, and Native Americans (other minorities).

Statistical Approach

The statistical approach used in this study had two components. The first component consisted of simple descriptive analyses to characterize differences in plan ratings and disenrollment rates across benefit offerings and enrollee subpopulations. The second component was the estimation of a series of multivariate models with the objective of estimating the effects of specific benefit offerings on plan ratings and disenrollments, while holding the effects of other explanatory variables constant. We estimated the following two general model specifications:

$$PR_{(i,j)}=f(X_{(i)}, G_{(i)}, B_{(i)}, M_{(i,k)}), \text{ and}$$
$$DR_{(p)}=f(X_{(i)}, G_{(i)}, B_{(i)}, M_{(i,k)}).$$

In these equations, PR(i,j) is the j^{th} performance rating for person i, $DR_{(p)}$ is the disenrollment rate for plan p, $X_{(i)}$ is a vector of demographic attributes, $G_{(i)}$ is a vector of binary variables indicating membership in a subgroup, $B_{(i)}$ is set of plan supplemental benefit offerings, and $M_{(i,k)}$ is a set of attributes for the k^{th} market within which person i resides.

We explored the possibility of including plan ratings as explanatory variables in the disenrollment models under the theory that enrollee satisfaction is a leading indicator of disenrollment. This notion was dismissed, however, because if this relationship did exist, it would most likely take the form of a multi-period relationship (e.g., last year's plan ratings affect this year's disenrollment rates) and these data were not available for this analysis.[6]

RESULTS

Descriptive Statistics

Enrollee Access to Selected Benefits

We examined the percent of plan enrollees with access to selected benefits to obtain a general perspective of the extent to

[5] With the exception of Medicaid buy-in status, all groups defined from information contained in the MMC CAHPS®. Medicaid buy-in status obtained from the Medicare enrollment database, as reported in the MMC CAHPS® sampling frame data file.

Table 2

Percentage of Plan Enrollees Who Have Access to Selected Benefits, by Subgroup: 1999

Plan Benefit	Selected Benefits						
	No Monthly Premium	Prescription Drugs	Physical Exams	Vision	Hearing	Dental	Health Education
				Percent			
Overall	82.6	81.8	98.1	95.8	87.6	58.0	82.6
Subgroup							
Under Age 65 Disabled	86.0	83.7	98.7	96.4	88.5	57.2	81.2
Age 65 or Over Fair/Poor Health and Limited Independence	81.6	81.0	97.7	95.5	87.2	57.8	83.1
Medicaid Buy-In	85.3	83.8	97.7	96.2	88.2	65.6	84.7
Black	93.6	89.8	100.0	98.6	93.2	62.4	77.1
Hispanic/Latino Origin	93.3	95.9	99.4	99.0	95.5	75.6	82.5
Other Minority	70.4	71.4	83.9	83.5	79.8	57.9	89.0
Percentage of Plans	65.6	68.6	96.6	89.2	78.2	33.9	75.6

SOURCE: Based on Medicare+Choice contract/service area county combinations.

which benefit coverage varied among the enrollee subgroups and the overall beneficiary population. As shown in Table 2, the majority of plan enrollees have access to these selected benefits. This remains static across the subgroups as well as the overall population. Two of the three race/ethnic subgroups (black and Hispanic/Latino populations) have slightly greater access to these benefits when compared with the other enrollee subgroups and the overall beneficiary population. In contrast, the third race/ethnic subgroup (Asians, Hawaiian/Pacific Islanders, and Native Americans) has the lowest access to these benefits among all of the subgroups. This finding is at least in part because that a large share of this subgroup population is concentrated into a relatively small number of plans. Finally, comparing the overall benefit and the percentage of plans in this table illustrates that offering these supplemental benefits does affect enrollment patterns, as MMC enrollees are more concentrated in MMC plans that offer these benefits.

[6] A similar argument can be made that characteristics of (current period) plan enrollees are good predictors of (future period) disenrollment rates. Plans that are disproportionately comprised of the very old, or enrollees in poorer health status may be expected to have relatively higher disenrollment rates. One of the reasons for fielding the disenrollment CAHPS® was to examine differences between enrollees and disenrollees.

Plan Satisfaction

A total of eight measures from the MMC CAHPS® Survey were selected for descriptive statistical analysis.[7] Four of these measures express overall plan ratings. These questions were: (1) rating of personal doctor or nurse, (2) rating of specialist, (3) rating of all doctors and other health care providers, and (4) overall rating health plan.

Each of these questions is based on an 11-point scale with zero representing the worst rating possible and 10 representing the highest possible rating. Finally, an average plan rating measure was included in the analysis. This measure was comprised of the average rating of each of the four questions.

The remaining four measures portray access to care plan ratings. These questions concerned problems with: (1) getting a doctor or nurse you are happy with, (2) getting a referral to a specialist, (3) getting care you or a doctor believed was necessary, and (4) delays in health care due to health plan approval.

[7] We opted not to include composite performance scores in this analysis largely because our focus was more on examining potential variation in the impacts of benefit offerings across specific measures of performance rather than on aggregate measures of performance.

Table 3

Average Plan Voluntary Disenrollment Rates, by Selected Benefit Offerings, Enrollee Subgroup, and Number of Plan Choices Available to Enrollees

Market	All Survey Respondents	Selected Benefits: No Monthly Premium	Prescription Drugs	Physical Exams	Vision	Hearing	Dental	Health Education
				Percent				
No Additional MMC Choices								
All Beneficiaries	6.5	7.2	7.0	7.3	7.7	7.7	5.2	7.6
Under Age 65 Disabled	7.3	7.3	7.8	8.0	8.3	8.2	6.1	8.1
Age 65 or Over Fair/Poor Health and Limited Independence	6.3	7	6.7	7.3	7.6	7.7	5.1	7.3
Medicaid Buy-In	7.3	7.8	9.2	8.7	9.1	9.1	6.5	7.8
Black	7.5	7.0	7.7	7.9	8.0	8.2	6.1	8.4
Hispanic/Latino Origin	9.3	9.6	6.8	10.0	10.3	10.3	3.5	9.9
Other Minority	7.5	8.7	7.8	7.9	8.0	8.1	3.6	8.8
One or More Additional MMC Choices								
All Beneficiaries	11.3	12.0	11.1	11.4	11.3	9.6	10.1	11.3
Under Age 65 Disabled	12.4	13.1	13.0	12.3	12.6	12.6	10.3	11.0
Age 65 or Over Fair/Poor Health and Limited Independence	11.3	12	11.9	11.1	11.4	11.3	9.7	10.1
Medicaid Buy-In	11.6	12.2	12.1	11.5	11.7	11.8	10.1	9.9
Black	12.1	12.4	12.5	12.0	12.2	12.0	11.0	11.1
Hispanic/Latino Origin	12.5	12.7	12.6	12.2	12.5	12.4	10.7	10.3
Other Minority	8.7	9.3	9.1	8.6	8.7	8.4	7.3	7.5

NOTE: MMC is Medicare managed care.

SOURCE: KPMG Consulting, Inc. analysis of 1999 MMC Consumer Assessment of Health Plans Study® and Medicare+Choice plan benefit data.

These four questions are based on a three-point scale with one representing a big problem and three representing no problem. An average access to care rating measure was also included in the analysis. This measure was comprised of the average rating of each of the four questions.

The results, as shown in Tables 3 and 4 indicate that there is little to no variation in plan ratings across the various selected supplemental benefits, holding subgroup membership constant. This lack of variation exists for both the overall plan ratings and access to care ratings examined.[8]

Voluntary Disenrollment Rates

Average plan disenrollment rates were calculated separately for respondents with no additional Medicare M+C options and respondents that had one or more additional Medicare M+C options (Table 3). These calculations were shown for each of the six subgroups as well as all survey respondents.

While it was shown that benefits have little or no association with MMC CAHPS® ratings of plans, disenrollment rates appear to have a stronger association with specific benefit offerings. The data indicate that dental benefits were consistently associated with lower disenrollment rates independent of either the number of competing plans or enrollee characteristics. In contrast, no other benefits were shown to have strong correlations with disenrollment rates independent of enrollee and market characteristics. A possible explanation for this is that little more than one-half of the respondents have dental benefits (Table 1), which is a considerably smaller percentage than the other benefits included in the analysis. The fact that dental benefits were less available could lead those enrolled to be more attached to their plan, if other M+C plans in the same market did not offer dental coverage.

Plans that are the only operating MMC plan in their market have significantly lower disenrollment rates than plans

[8] Additional tabulations are available on request from the authors.

operating in a more competitive market. However, offering specific benefits does not substantively impact disenrollment rates. On average, enrollees are more likely to disenroll if other plan choices are available to them; however, dental and health education benefits are associated with lower disenrollment rates in these more competitive markets.

Further, disenrollment rates are slightly higher for plans that do not charge a supplemental premium. One possible explanation for this observation is that these plans may operate in more competitive markets where multiple zero-premium options are available. (Tabulations from the study data indicate that zero premium plans were offered in approximately 64 percent of single-plan counties, whereas only approximately 29 percent of plans offered in multiplan counties were zero premium plans.)

Finally, disenrollment rates vary across the enrollee subgroups and, with few exceptions, tend to be higher than for the rates for all beneficiaries. As evidenced by the generally higher rates observed in both no option and multiple option markets, this finding might be reflective of a larger share of subgroup members returning to FFS Medicare, rather than switching M+C plans.

Multivariate Analysis

The descriptive statistics previously discussed imply overall correlations between plan ratings and disenrollment rates with various selected benefits. As these statistics illustrated, however, a variety of factors, including subgroup membership and market attributes may have affected the variables of interest. Therefore, we estimated a series of multivariate regression models for the purpose of controlling for the marginal impacts of these variables on plan ratings and disenrollment rates.

In addition to information on benefit offerings, a group of demographic and plan-related control variables were included in the multivariate regressions.[9] We examined several different model specifications, with the resulting best-fit specifications reported in Tables 4 and 5. Although the MMC CAHPS® data report plan performance ratings for upwards of 14 different measures, the results presented here focused on four global measures.

Overall Ratings of Plans and Providers

The multivariate analysis yielded results that were consistent with previous MMC CAHPS®-based studies in that the exceptional needs subgroups[10] have consistently lower ratings of their health plan and health care, while Hispanic/Latinos and black subgroups have generally higher ratings (Table 4). There is also a relationship between market and beneficiary attributes and satisfaction with care. Older, less-educated beneficiaries enrolled in plans operating in a less competitive market reported higher ratings of satisfaction than their counterparts. No definitive relationship can be seen for the HMO payment rates or the amount of time the beneficiary has been enrolled in the plan.

Examination of selected benefits across the overall plan and provider measures shows few statistically significant relationships. Providing coverage for vision services produced an increase in plan ratings for the overall rating of the health plan. In contrast, offering a pharmaceutical drug benefit or hearing services were found to be associated with lower plan ratings. Finally, for several, but not all, plan ratings, increased enrollee financial liability was found to be associated with lower ratings.

[9] Additional information on variable definitions is available on request from the authors.

[10] The exceptional needs subgroups include disabled beneficiaries and those aged beneficiaries with limited independence in fair or poor health.

Table 4

Multivariate Regression Results of Overall Ratings of Plans and Providers

Independent Variable	Overall Rating of Health Plan	Rating of Personal Doctor or Nurse	Rating of Specialist	Rating of all Doctors and Other Health Care Providers
Subgroup		Estimated Coefficient		
Under age 65 Disabled	**-0.549	*-0.066	**-0.307	**-0.368
Age 65 or Over Fair/Poor Health and Limited Independence	**-0.615	**-0.378	**-0.366	**-0.572
Medicaid Buy-In	**-0.121	*0.087	0.090	0.054
Black	**0.173	**0.135	0.022	**0.182
Hispanic/Latino Origin	** 0.136	**0.164	*0.097	**0.123
Other Minority	**-0.210	**-0.120	**-0.357	**-0.202
Market Attributes				
M+C Payment Rate	0	**0.001	0	0
HMOs in Service Area				
1 Additional MMC Choice	0.052	0.018	0.076	*-0.085
2-5 Additional MMC Choices	0.041	0.037	0.080	-0.047
5 or More Additional MMC Choices	-0.061	*-0.085	*-0.115	**-0.195
Beneficiary Attributes				
Age				
70-74 Years	**0.050	**0.134	**0.087	**0.050
75-79 Years	**0.107	**0.197	**0.071	**0.066
80 Years or Over	**0.179	**0.198	**0.087	**0.122
Sex (1=male)	**-0.122	**-0.112	**-0.066	**-0.077
Education				
Some High School	**0.126	**0.079	**0.252	**0.180
High School Graduate	**-0.109	**-0.124	0.051	-0.007
Time in Plan				
2-5 Years	**0.134	-0.006	-0.009	*0.035
6-10 Years	**0.251	0.007	0.032	0.030
10 or More Years	**0.358	-0.004	*0.091	**0.174
Benefits				
Physical Exams	-0.193	0.049	-0.050	0.022
Vision	**0.133	0.013	0.129	0.058
Dental	-0.012	-0.023	0.008	-0.027
Hearing	**-0.250	**-0.134	**-0.226	**-0.126
Health Education	0.021	**-0.055	**-0.071	-0.029
Drugs	**-0.229	**-0.205	**-0.125	**-0.139
Premium	**-0.149	-0.042	-0.013	-0.020
Personal Doctor Copayment	**-0.019	**-0.007	0.002	0.002
Constant	**9.369	**8.771	**8.974	**9.101
R-Squared	0.0303	0.0164	0.0157	0.0249

**Statistically significant at the 0.01 level.

*Statistically significant at the 0.05 level.

NOTES: M+C is Medicare+Choice. HMOs are health maintenance organizations. MMC is Medicare managed care.

SOURCE:KPMG Consulting Inc. analysis of 1999 MMC Consumer Assessment of Health Plans Study® and M+C plan benefit data.

Ratings of Access to Care

In general, similar findings were obtained for specific access to care ratings.[11] Drug and hearing benefits were found to have statistically significant negative impacts on the specific ratings examined. However, health education was found to be statistically significant and positive for one measure, and negative for two of the other measures examined. Finally, subgroup membership and

[11] Additional information is available on request from the authors.

other demographic variables were found to be statistically significant in fewer instances than for the overall plan rating models.

Voluntary Disenrollment Rates

The results show that market attributes have the most significant impact on disenrollment rates. Health plans that operate in a non-competitive market have significantly lower disenrollment rates than plans that have one or more plans operating in their service area. The estimated statistically significant positive effect of plan payment rates on disenrollment rates is most likely also capturing the effect of increased plan choices, as these rates are positively correlated with the number of plans operating in the market. (It should be noted that the apparently small estimated coefficient associated with plan payment rates relative to other variables might be reflecting greater variation in this measure compared with the other explanatory variables, which are expressed as binary indicator variables.)

The under age 65 disabled and Hispanic/Latino subgroups were found to have higher disenrollment rates, after controlling for benefit offerings and market attributes (Table 5). For these subgroups, this finding is consistent with the lower plan ratings provided by members of this group. However, this finding is not consistent for Hispanic/Latinos, who reported higher ratings of their health plan and health care. The members of the other minority subgroup are less likely to disenroll from their health plan; however, it should again be noted that the majority of these members are enrolled in a small number of plans.

Younger and more educated beneficiaries are less likely to disenroll from their health plan than older, less educated beneficiaries. This might be reflective of relatively fewer health care needs due to better health status. In addition, the longer a member has been enrolled, the less prone she or he is to disenroll.

With respect to the supplemental benefits, the estimated effects on disenrollment rates were mixed. Dental benefits and health education were significantly associated with lower disenrollment rates. In contrast, benefits such as prescription drugs and vision were found to be associated with higher disenrollment rates. Anecdotal information indicates this might be due to the specific features of these benefits. For example, due to low annual caps on prescription drug benefits, beneficiaries might change plans once a cap is reached. A similar possible explanation might exist for vision benefits. Although eye exams and/or corrective lenses might be covered, it is unclear as to the specific generosity of this benefit (e.g., cost sharing, annual limits on exams, lens, etc). As such, similar plan shopping behavior might be occurring.

DISCUSSION

The results presented in this article appear to tell two stories. First, benefits do not seem to play a key role in how enrollees rate the performance of their health plans. Instead, this lack of statistical impact tends to indicate that plan ratings are based on plan performance or quality, and not the range of benefits provided. As such, the MMC CAHPS®, and other similar surveys are achieving their objectives.

In contrast, variation in benefit offerings has a slight, but significant impact on disenrollment rates. These impacts, however, are not necessarily indications of the absolute attractiveness of a plan due to its benefits offerings. Instead, they are probably more reflective of the competitive advantages held by plans offering particular benefits, not offered by other plans in

Table 5
Multivariate Regression Results

Independent Variable	Voluntary Disenrollment Rates
Subgroup	Estimated Coefficient
Under Age 65 Disabled	**1.141
Age 65 or Over Fair/Poor Health and Limited Independence	0.005
Medicaid Buy-In	-0.083
Black	**-0.622
Hispanic/Latino Origin	**1.105
Other Minority	**-1.942
Market Attributes	
M+C Payment Rate	**0.003
HMOs in Service Area	
1 Additional MMC Choice	0.366
2-5 Additional MMC Choices	**3.424
5 or More Additional MMC Choices	**3.863
Beneficiary Attributes Age	
70-74 Years	**0.319
75-79 Years	**0.686
80 Years or Over	**0.716
Sex (1=male)	-0.052
Education	
Some High School	*0.339
High School Graduate	-0.067
Time in Plan	
2-5 Years	**-0.503
6-10 Years	**-3.255
10 or More Years	**-5.858
Benefits	
Physical Exams	0.160
Vision	**1.471
Dental	**-6.622
Hearing	0.164
Health Education	**-4.362
Drugs	**3.944
Premium	**-1.872
Personal Doctor Copayment	**-0.184
Constant	**10.720
R-Squared	0.1601

**Statistically significant at the 0.01 level.

*Statistically significant at the 0.05 level.

NOTES: M+C is Medicare+Choice. HMO is health maintenance organization. MMC is Medicare managed care.

SOURCE: KPMG Consulting, Inc. analysis of 1999 MMC Consumer Assessment of Health Plans Study® and M+C plan benefit data.

the market. Those benefits with the lowest offering rate had the largest estimated negative effect on disenrollment rates. Further, the more competitive the market, as evidenced by the number of plans available, the higher the estimated effects on disenrollment rates.

It should be noted though that this study did not account for the competitive impacts of private supplemental FFS plans on disenrollment rates. M+C plans compete not only with each other, but also against private supplemental plans for market share. The extent to which the availability and relative generosity of these plans varies across markets could affect the estimates presented here.

Finally, given these findings, it will be interesting to see how the statutory changes in Medicare plan enrollment

policies might affect these relationships. The Balanced Budget Act (BBA) of 1997 modified provisions relating to when beneficiaries have to join or leave an M+C plan. In 2002, beneficiaries had the first 6 months of the year to disenroll from an M+C coordinated care plan and choose another plan, leave original Medicare (FFS) to enroll in an M+C plan, or return to original Medicare once. While the BBA would have required beneficiaries to be locked in after the first 3 months of the year in 2003 and thereafter, legislation recently passed (the Public Health Security and Bioterrorism Response Act of 2002 [Public Law 107-188]), postponed the effective date of the lock-in provisions to 2005. In 2003 through 2004, beneficiaries have no lock-in requirements.

One outcome of this change is that enrollees would no longer be able, midyear, to change plans due to minor changes in benefits, or resetting the counter for benefits whose annual limits have been exhausted. It is uncertain, however, how this reduced shopping capability will affect health plan ratings. On one hand, plan ratings might become increasingly reflective of not only the quality, but also the quantity of benefits offered. In contrast, beneficiaries might still draw the distinction between quality and quantity. Replications of analyses, such as the one presented here after the enrollment lock-in provision is fully implemented, should help shed light on this topic.

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