

Implementation of Medicare CAHPS® Fee-for-Service Survey—Final Report for Year 1

Purpose: CMS currently conducts three Consumer Assessment of Health Plan Surveys (CAHPS®) of the Medicare population: 1) the Medicare CAHPS Fee-for-Service (MFFS) Survey; 2) the Medicare CAHPS Managed Care (MMC) Survey; and 3) the Medicare CAHPS Managed Care Disenrollment Assessment Survey. The surveys collect information on an annual basis to fulfill a requirement of Congress (under the Balanced Budget Act of 1997) to provide information to Medicare beneficiaries on the quality of health services provided through the Original Medicare Plan (also known as MFFS) and to compare this information to similar information collected from beneficiaries enrolled in MMC health plans. Comparative information from all three surveys is reported to Medicare beneficiaries on the Medicare Health Plan Compare web site so they can make more informed decisions when choosing a Medicare health plan. The purpose of the subject report was to analyze and summarize the methodology and findings of the MFFS CAHPS.

Results: The subject report provides an analysis of the methodologies and findings pertaining to the following technical elements of the MFFS CAHPS: questionnaire development; sample selection and weighting; data collection; case mix adjustments; analysis of geographic units; subgroup analysis; and, encouraging PROs to use CAHPS data for quality improvement. Here are the methodologies and/or major findings for each of these elements:

1. Questionnaire Development

- Prior to conducting the survey, a field test of two randomly administered versions of the questionnaire instrument was conducted to test whether differences in wording yielded significantly different responses and to test whether recall was better among respondents who were asked to rate their experiences within a 6-month period as opposed to a 12-month period or no recall period at all.
- Similar response rates were obtained for the CAHPS report and rating items for both versions of the instrument.
- However, cognitive testing prior to the field test showed that a 12-month recall period could impose a greater cognitive and response burden on Medicare beneficiaries.

- These findings, in combination with a lower response rate among persons randomized to the 12-month or unspecified recall period, led to the recommendation of a 6-month recall period in the final version of the questionnaire instrument.
- Based on the field test: a) the wording of some CAHPS questions was slightly revised to make them more applicable to the Medicare population; and b) some questions in the CAHPS MMC survey questionnaire were excluded from the MFFS survey questionnaire, and vice versa, depending on the analysis needs of the project prior to the national implementation of these surveys.

2. Sample Selection and Weighting

- A sample size of 167,993 was selected out of 30.1 million persons enrolled in MFFS for at least the prior 6 months and who resided in the U.S or Puerto Rico, according to the August 2000 version of CMS/HCFA's Enrollment Database (EDB).
 - 280 geographical units (geounits) were constructed (275 in the U.S. and 5 in Puerto Rico) to allow CAHPS outcomes to be compared both within the MFFS subpopulation and between the MFFS and MMC subpopulations for small, meaningful areas.
 - The goal was to obtain a minimum of 300 in each sampling unit so that ratings and composites could be calculated.
 - This resulted in the need for beneficiaries in rural counties and less populous states to be sampled higher rates than beneficiaries in urban counties and populous states.
- Response rates for the MFFS survey varied considerably with respect to urbanicity (rural counties higher than urban), race (Whites higher than other races), age (younger beneficiaries higher than older), dual Medicare/Medicaid eligibility, and region of the country (Midwest higher than others).
- To reduce the potential biasing effects of differential nonresponse, the initial sampling weights of respondents were post-stratified to 338 separate counts of the total number of MFFS beneficiaries obtained from the October 22, 2000 version of the EDB.

3. Data Collection

- Primary mode of data collection for the MFFS survey was a self-administered mail survey
 - In addition to completing survey by mail, respondents were given the option to complete survey by telephone to allow for inclusion of most possible sample members (e.g., sample members with vision, reading or other impairments that might otherwise preclude their participation).
 - A Spanish version of the questionnaire was also offered.
 - CMS followed up by telephone with nonrespondents for which it had a telephone number and by overnight mail with the remaining nonrespondents.
- The overall response rate among all eligible beneficiaries was 63.9 percent.
 - Rates varied somewhat among the geographic areas from which randomized subsamples were drawn; however, response rates in each area were sufficient to provide measures of CAHPS composites and ratings for all geographic areas in the U.S. and Puerto Rico.
- Notable among these results was the lack of telephone numbers in CMS/HCFA administrative files.
 - Elderly persons with low incomes can be very difficult to find because they often do not have telephones or credit histories to trace.
 - As a result, tracing methods that match names to public records and search credit bureau information are often not very successful.

4. Case Mix Adjustments

- Two applications of Case-Mix Adjustment (CMA) to the 2000 MFFS Survey (within-MMFS comparisons and MFFS-versus-MMC comparisons) suggested two distinct but similar CMA models.

- CMA tended to make small adjustments in favor of MFFS relative to MMC.
 - The well-established tendency of healthier beneficiaries to rate their care more positively or to report better health care experiences was considerably stronger in MMC than in MFFS.
 - In other words, personal satisfaction with health care was much more sensitive to health status in MMC than in MFFS.
 - Also, there is generally poorer health status among MFFS beneficiaries (even excluding the dually eligible) than among MMC beneficiaries.
- The existence of strong and different case-mix effects for health status between MMC and MFFS suggest that we should consider stratified reports by beneficiary health status.
 - In fact, the Subgroup Analysis Report demonstrates that a “cross-over” occurs in many instances: Less healthy beneficiaries are more satisfied with MFFS than with MMC, whereas healthier beneficiaries are more satisfied with MMC than with MFFS.

5. Analysis of Geographic Units

- The results of the geounits analyses, which are consistent across the various procedures used, indicate that the vast majority of variability in the CAHPS outcomes is at the individual level.
 - For higher levels of geographical aggregation, geounits tend to look alike within a particular state with respect to responses of the CAHPS measures.
- Although the geounits do not contribute in any statistically meaningful way for the purposes of analysis, they are essential for the creation of comparisons to MMC.
 - The current geounits should be modified only to conform to the changing MMC landscape.

6. Subgroup Analysis

- The MFFS population is quite heterogeneous in terms of demographic characteristics, region of residence, supplemental insurance, and health-related characteristics.

- Data were reported on a number of levels of aggregation, including geographic sampling units, state, region, and nation.
- In markets where there was sufficient MMC penetration to offer choices to beneficiaries, the aggregation enabled MFFS and MMC comparisons.
- Notable findings from these analyses include the following:
 - Across geounits, states, and CMS regions, a consistent pattern emerged among MFFS beneficiaries with the Needed Care composite having the highest percentage of most positive responses and Rate Medicare having the lowest percentage of most positive responses.
 - Ratings and composites vary by subgroups of MFFS beneficiaries; differences in ratings and composites were found by insurance status (dually eligible, with vs. without supplemental insurance), self-reported health status, race, and age. However these differences were not always consistent.
 - With the exception of Medicare Customer Service, no more than 20 percent of MFFS beneficiaries responded negatively to all CAHPS performance indicators and rating.
 - MFFS beneficiaries who are younger, more educated, in poorer health, and/or do not have a personal doctor are generally less satisfied with MFFS than their counterparts.
 - On a national level, neither MFFS nor MMC beneficiaries consistently provided more positive responses across all indicators.
 - Beneficiaries in excellent/very good health perceive their plans and the care they receive differently than those in fair/poor health. Generally, a larger proportion of beneficiaries in fair/poor health give MFFS higher ratings, while a larger proportion of those who rate their health as excellent/very good give MMC higher ratings.

7. Encouraging PROs to Use CAHPS Data for Quality Improvement

- The original goal of this task was to gain a better understanding of how CAHPS was viewed and understood by the Peer Review Organizations (PROs) and then to develop a model for enabling them to use CAHPS data in their Quality Improvement (QI) projects.

— But it was learned that the Picker Institute had already conducted focus groups with PROs on a very similar topic.

— The focus group report suggested that PRO staff did not have much knowledge of or experience with CAHPS data, and that there was no great interest in becoming more familiar with the data in the context of QI.

- The original task was replaced by two other promising tasks: a) to see how private health plans are using CAHPS data for QI purposes and to assess parallels for PROs; and b) to make an effort to tie CAHPS data in some way to clinical or preventive care.
- Private health plans generally indicated that CAHPS was performed in order to obtain accreditation and for promotional reasons. However, three of the health plans mentioned using CAHPS for QI purposes.

— Interviews with representatives of the three health plans revealed that CAHPS data were being used by health plans along with other information to identify areas needing improvement *within* the health plans. Most typically, this was directed at improving overall health plan ratings in order to raise their accreditation score.

— Also, other surveys were conducted with “CAHPS-like” items in order to get closer to identifying operational problems. It was felt that the CAHPS survey identified problem areas but was “too high level” to actually identify the roots of the problems.

— Therefore, there does not seem to be enough parallels at the present time between private health plans and PRO use of CAHPS data to support QI to take this line of inquiry much further.

- CMS has also undertaken to examine whether variations in some of the CAHPS service quality variables are significantly related to variations in clinical preventive health behaviors.

— Specifically, CMS has begun to explore the extent to which the communication skills of primary care physicians and the helpfulness and respectfulness of their office staff are associated with better compliance with selected preventive care directives.

— In this study, we analyzed the relationships between service quality and mammography use employing multiple linear regression procedures.

— The units of analysis for this particular investigation were the geounits (275 counties and county groups) that were used for the selection of the national sample of beneficiaries included in the 2000 MFFS.

— Two models were tested using slightly differently calculated CAHPS quality measures of physician communication and staff helpfulness. CMS also repeated the estimation of both models on two subpopulations for which there were mammography use rates.

— Both models showed significant differences in the rates of mammography use across geounits. However, census division was the most consistently significant variable and likely accounts for most of the differences in rates that the model explains.

— Only one of the two CAHPS service quality measures rates, i.e., physician communication, was associated with the mammography use rate, but it was only significant in half of the models. The office staff service measure never reached significance in any of the models.

- CMS' analyses thus far are not conclusive with respect to the association of CAHPS service quality measures.

— In the future, we propose to obtain individual-level preventive service use outcomes to analyze with individual-level CAHPS scores rather than the geographic area or ecological measures that were examined in this analysis.

— Among preventive health behaviors we will focus on next are some included in the CAHPS survey (receipt of flu shot, pneumonia immunization, and smoking cessation counseling), and others extracted from Medicare claims data (mammography screening, treatment of depression, and diabetes care).