

C. Collections of Information Employing STATISTICAL METHODS

I . Respondent Universe and Sampling Methods

The respondent universe will be approximately 57,000 enrollees. An average 30.92 percent sample is taken and used for collecting the necessary data for the calculation of the monthly risk adjusted payment using the payment methodology.

A large random sample of enrollees could be used to produce estimates of the average cost factor that are quite close to the average for the full population. This estimated average factor for enrollees in the county (\overline{CF}) would then be multiplied by the county rate (r) and the number of enrollees in the county (N_e) to determine total payments to the plan [Payment = $\overline{CF} * r * N_e$]. Because the sample would be random, the estimated average cost factor would be an unbiased estimate of the population rate, so we would expect the sample on average to produce a payment factor (and therefore, total payments) that are close to that which would be obtained from the full population. However, we must draw a large enough sample to ensure a very low probability that chance differences between the particular sample we draw and the population are not large.

Sample Size Needed

Based on calculations that MPR has done on the payment factor data, a random sample around 30.92 percent of the population would ensure a very low probability that the estimated average cost factor would deviate by more than 1 percent (in either direction) from the population value. Each month MPR would calculate the payment factor for each sample member and compute the average for each county. CMS would then multiply this factor by the total number of beneficiaries enrolled in HPN from that county for that month. In these calculations we would use the data from the most recent interview for each enrollee in the sample. Average payments would change from month to month because some sample members would die or disenroll, new enrollees would join, and some fraction of enrollees would have updated data from an interview on their anniversary date. Total payments would change as the average monthly payment changed and as total enrollment changed.

Selecting the Random Sample

In selecting the 30.92-percent random sample, the contractor uses a simple method that makes monthly sampling easy and automatic and that yields a sample with the same average payment rate as the population at the outset. This would be to select the sample based on the final digit of the beneficiary ID number, and choose the three digits that yield a sample with an average payment factor as close as possible to the population value. The sample is defined to consist of all beneficiaries whose final digit is a 4, 5, or 8.

2. Procedures for Collection of Information

In an attempt to consolidate the various data collection needs of the S/HMO-II demonstration, a data collection instrument was developed. The S/HMO-II instrument is designed to gather data or information from the S/HMO-II treatment group members.

For treatment group members, the S/HMO-II data collection instrument was designed to provide the information necessary to adjust the capitated payment rates at the individual level for "at-risk" characteristics. The instrument is an initial screening instrument and is included in Appendix B.

Initial Screening Instrument

The initial screening instrument (Appendix B-1) will be administered to treatment group enrollees at baseline and annually thereafter.

The initial screen shall serve the following functions for S/HMO-II treatment group members: (1) identify at-risk beneficiaries that may require clinical intervention or further assessment by the respective health plan. 2) provide information necessary for the SHMO-II risk-adjusted payment; and (3) provide baseline and follow-up data. While the initial screen will be administered annually, other circumstances, such as a referral or an irregular utilization pattern may trigger intermittent administration of the initial screen for treatment group members.

The initial screening instrument is administered to a sample of treatment group members by an independent third party contractor. Upon survey completion, the independent third party contractor will forward data collected from treatment group members to the respective health plan for care planning. This information will become part of the treatment beneficiary's medical record. Treatment group data will also be forwarded to CMS for payment determination. CMS awarded a contract to Mathematica Policy Research to perform the data collection function. The data are being collected via telephone interview (Computer Assisted Telephone Interview) with in-person follow-up (when necessary). The annual screen (versus intermittent administration) is the only mechanism that impacts a treatment individual's payment rate.

3. Maximizing Response Rates

Data will be collected using a sample at the time of enrollment and annually thereafter for the duration of the demonstration project. The clinical, and operational needs of the S/HMO-II demonstration demands a high response rate for the treatment members. While obtaining a 95 percent response rate is onerous, the independent third party contractor will be expected to work collaboratively with the participating SHMO-II site to initiate aggressive data collection

techniques designed to maximize the response rate. For treatment group members, the participating S/HMO-II site will issue a letter informing them that they will be contacted to provide information needed to appropriately plan for their health care needs (see Appendix C for model letter). The advance letter and continued cooperation between the independent third party contractor and the participating site in locating members and converting refusals should minimize non-response. Moreover, the mode of data collection shall also contribute to a high response rate. Telephone coverage is very high for the elderly. Ninety-seven percent of households with a member age 65 or older have telephones (U.S. Bureau of the Census, 1995).

4. Pretesting

The procedures to be used for the S/HMO-II data collection instrument has been utilized on previous telephone and in-person surveys among the elderly and have worked successfully.

5 . Statistician/Contractor

Mathematica Policy Research, Inc. is the contractor conducting the interviews.