

**Additional Detail Regarding MA & PDP CAHPS Weighting of Measures
within MA Contracts**

and Sampling of MA-PD and MA-Only cases

How weights are constructed

For each stratum defined by contract and coverage type (MA-PD or MA-Only), the weights of individual responses are defined as the ratio of the number of survey-eligible beneficiaries in the stratum to the number of respondents in the stratum. Thus, when there are both MA-PD and MA-Only beneficiaries in the same contract, the ratios for these two strata are calculated separately, regardless of whether the strata were sampled at different rates. A contract can calculate these weights using its own counts of survey-eligible beneficiaries and respondents. The weighted unadjusted estimates of contract means are defined in the usual way as

$$\bar{y}_h = \sum_k w_{hk} y_{hk} / \sum_k w_{hk}$$

where w_{hk} is the weight for respondent k in contract h and y_{hk} is the observed value of variable y for that respondent.

Sampling Design: Sampling of MA-PD and MA-Only cases within Contracts¹

If the fraction of a contract's enrollment that is MA-Only is very small ($< 1\%$), we drop the MA-Only sample requirement for the contract and draw the entire sample from the MA-PD portion. Similarly, in contracts in which MA-PD beneficiaries make up a very small portion ($< 1\%$) of the enrollment, the entire sample is drawn from the MA-Only enrollees.

Otherwise, if the proportion of beneficiaries in MA-PD is less than 40% or greater than 80%, we allocate the sample between MA-PD and MA-Only proportionally using the following formula:

MA-PD sample = $\min(NR, \text{MA-PD enrollment})$

MA-Only sample = $\min(N - \text{MA-PD sample}, \text{MA-Only enrollment})$

where R is the proportion of MA-PD enrollment in the contract,

$$R = (\text{MA-PD enrollment}) / (\text{total enrollment}).$$

and N is the required sample size (including any sample expansion requested by the contract, and limited by total enrollment in the contract).

In contracts where the proportion of beneficiaries in MA-PD is between 40% and 80%, we sample MA-PD beneficiaries at a higher rate than MA-Only beneficiaries in order to improve the accuracy of the Part D measures for the contract, while limiting the variance increase for the Part

¹ This section describes how sampling proportions of MA-PD and MA-Only beneficiaries are determined within some MA contracts, but it is not necessary to calculate this proportion to calculate weights or contract scores.

C measures due to disproportionate sampling from the MA-PD and MA-Only strata. The fraction of sample allocated to MA-PD is calculated by the following formulas:

$$p = \min \left[.80, \frac{\left(\sqrt{b^2 - 4CR^2} + b \right)}{(2C)} \right] \text{ where } b = C + 2R - 1, R = \text{PD enrollment rate in}$$

contract, and C = maximum allowed variance inflation, which for MA is set to 1.2. Then the MA-PD sample is $\min(Np, \text{MA-PD enrollment})$.