

**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 contract, the weights of individual responses are defined as a ratio of the number of eligible beneficiaries in the contract to the number of respondents. When there are both MA-PD and MA-Only beneficiaries in the same contract, the ratios for the two subgroups are calculated separately. The weighted unadjusted contract means are defined in the usual way as $\bar{y}_h = \frac{\sum_k w_{hk} y_{hk}}{\sum_k w_{hk}}$

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

If a contract has less than 1% of enrollment in MA-Only, we drop the MA-Only sample requirement for the contract and restore that number to the MA-PD portion count. This modification applies similarly to a contract in which MA-PD beneficiaries make up a very small portion (< 1%) of the enrollment, as well.

If the proportion of beneficiaries in MA-PD was lower than 40% or greater than 80%, we simply allocate the sample between MA-PD and MA-Only as close as possible to proportionally using the following formula:

$$\begin{aligned} \text{MA-PD sample} &= \min(800R, \text{MA-PD enrollment}) \\ \text{MA-Only sample} &= \min(800 - \text{MA-PD sample}, \text{MA-Only enrollment}) \end{aligned}$$

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

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

Otherwise, we use the following more complicated formula for the fraction of sample allocated to MA-PD:

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

contract, and C = maximum allowed variance inflation, which for MA is set to 1.2. Then the MA-PD sample is $\min(800p, \text{MA-PD enrollment})$.