# MPA Geographic Attribution Approach

Beneficiaries and TCOC are attributed through a geographic approach known as Primary Service Area Plus (PSAP). Under this approach all beneficiaries are attributed based on their zip codes of residence. If the zip code is in only one hospital's primary service area (PSA, as determined using the method described below), all patients who reside in the zip code are attributed to that hospital. If the zip code is in more than one hospital's PSA, costs and beneficiaries will be allocated according to utilization share[1] in that zip code. If the zip code is not in any hospital's PSA it is assigned to hospitals based on share of Medicare ECMADs and drive time. A list of the hospital assignments by zip can be obtained from the HSCRC. A small number (<1%) of beneficiaries are tagged in the data source as Maryland residents but do not have a Maryland zip code, these beneficiaries are excluded from the attribution.

Hospital performance will be calculated based on the attributed geographic beneficiaries as described in the 2022 Final MPA Recommendation.

Figure 1. PSA Plus Attribution
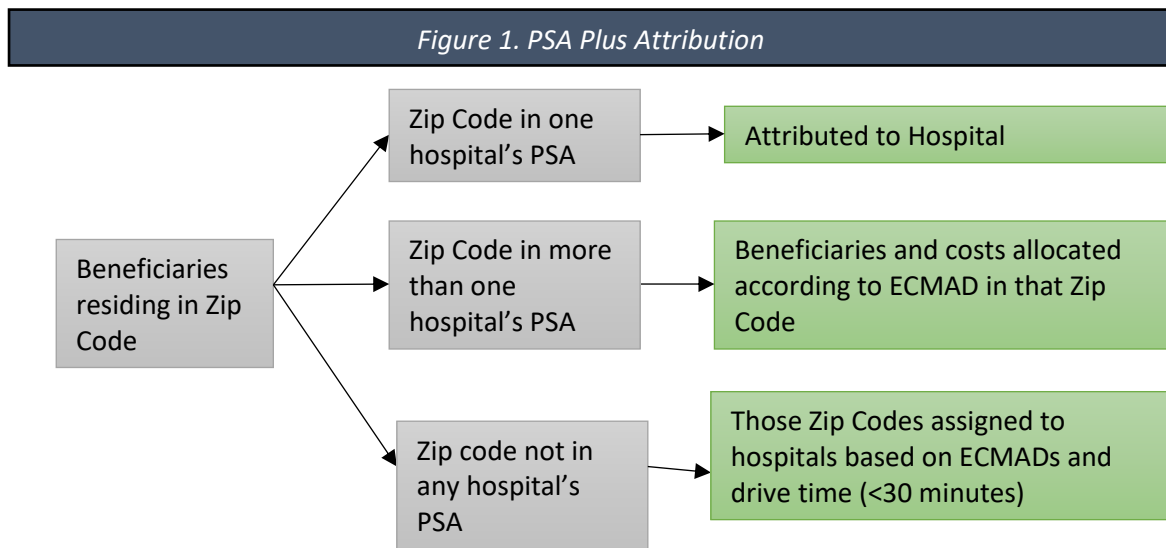
ECMAD stands for equivalent case-mix adjusted discharge. It is the number of (a) inpatient discharges and (b) outpatient visits scaled to reflect utilization similar to inpatient discharges.

Method for determining a hospital's PSA
A hospital's PSA is as follows
1. For each hospital the ECMADs[2] delivered by that hospital are grouped by the zip code of the beneficiary's residence.
2. For each hospital, all Maryland zip codes with at least 1 ECMAD for that hospital, are sequenced from the zip code with the most ECMADs to the one with the least.

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[1] Using Fiscal Year 2019 Medicare Equivalent Case-mix adjusted discharges (ECMADs)
[2] Using Fiscal Year 2019 Medicare Equivalent Case-mix adjusted discharges (ECMADs)

3. For each hospital the cumulative percentage of total hospital volume represented by the included zip codes is calculated after adding each successive smaller zip code in the list.
4. The hospital's PSA is defined to include all the zip codes included at the point that the cumulative % calculated in Step 3 reaches 60%.

MPA Academic Approach

Beneficiaries will additionally be attributed to the Johns Hopkins Hospital and the University of Maryland Medicare Center using a touch-based attribution. This is in addition to the beneficiaries attributed to those institutions under the geographic MPA approach. This approach is necessary to correct for the AMCs' relatively small service area in proportion to their share of the overall hospital market.

Attribution

Beneficiaries[3] will be attributed to the AMC if:

- They have an inpatient stay and are discharged from the AMC; and
- The service they receive has a case mix adjustment of more than 1.5[4]; and
- They are a resident of Maryland with both Medicare Fee-for-Service (MC FFS) Part A and B coverage.

The AMCs will be attributed the costs of the inpatient hospitalization plus any costs that occur in the 30-day period following the beneficiaries' discharge from the hospital. Payments that are paid on a bundled basis (such as SNF stays) will be prorated for the portion of the episode that falls within the 30 day window. Normal adjustments (windsorization, etc.) will be made to the attributed payments. Payments attributed to the AMC for each MPA performance year will include all episodes that end during the calendar year. A 3 month claims runout will be applied[5].

Calculation of the MPA Adjustment for Academic Medical Centers

The per capita TCOC that the AMCs are accountable for will be based on the statewide number of beneficiaries. This will ensure that the AMCs have an incentive to invest in the population health of the State in order to reduce the number of beneficiaries with a CMI, where possible. The calculation of Per Capita TCOC is shown below:

$$Per\ Capita\ TCOC = \frac{30\ Day\ TCOC\ for\ Benes\ with\ CMI > 1.5\ \&\ at\ least\ 1\ IP\ Discharge\ from\ AMC}{Number\ of\ MC\ FFS\ A + B\ Beneficiaries\ in\ Maryland}$$

The AMC's Target Per Capita TCOC will be equal to the baseline period Per Capita TCOC multiplied by the national compounded growth rate between the base period and the performance period, minus the trend adjustment factor. This calculation is described in the 2022 Final MPA Recommendation. This is the same target as exists for the geographic MPA.

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[3] These beneficiaries will be allowed to overlap with beneficaires attributed to other hospitals.

[4] Calculated using a consistent version of MD-DRG in each period.

[5] In order to have 3 months claim run out and deliver MPA results to CMS on schedule it is necessary to measure the program results using episodes ending rather than beginning during the performance year.

The Performance Period Per Capita TCOC will be compared to the Target Per Capita TCOC and a point difference will be calculated. The point difference will be multiplied by 1/3 and capped at +/- 1%[6].

For AMCs, the Academic reward/penalty shall be combined with the Geographic Reward or Penalty on a weighted basis. The weights shall be the TCOC measured under the applicable attribution. That is the annual TCOC for the beneficiaries under the Geographic Attribution and the initial hospitalization plus the 30-day episode cost for beneficiaries under the Academic Attribution.

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[6] Under the MPA a hospital may earn a reward of penalty up to 1% for the first 3% over or under performance. Therefore the actual performance is divided by 3 and capped at 1% in calculating the reward or penalty.