Have we reached parity between Medicare Advantage RAPS and EDS risk scores?
The results may be better than expected.

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Starting in 2016, the Centers for Medicare and Medicaid Services (CMS) began phasing out the use of the Risk Adjustment Payment System (RAPS) data that historically has been the sole source for calculating Medicare Advantage risk scores, with the goal of ultimately replacing it with the Encounter Data Processing System (EDS).

Per the 21st Century Cures Act,¹ the transition to the latest risk score model used to develop EDS-based risk scores will be complete by 2022 such that payment year (PY) 2022 risk scores will be calculated using only the diagnoses from encounter data.² For the last several years, CMS gradually put more weight on the risk scores calculated using encounter data to give Medicare Advantage organizations (MAOs) and providers time to prepare for this change and ease the impact of the change on any single year. The PY 2021 risk scores will be calculated as a blend of 75% EDS submissions and 25% RAPS submissions, which will make this the final transition year.

With 2022 just around the corner, it is important that MAOs understand the expected impact of EDS as the single source of diagnoses for calculating risk scores and the impact this transition may have on their revenue. CMS stated in the 2021 Advance Notice that it projects no meaningful differential between the RAPS-based risk scores and encounter-based risk scores.³

In the early years of the EDS implementation, many MAOs had issues with data submission and error handling with the EDS process, which led to EDS-based risk scores being significantly lower than the RAPS-based risk scores for some MAOs. We conducted surveys in past years that identified the average difference between RAPS-based and EDS-based risk scores.⁴,⁵ These surveys confirmed that EDS risk scores have historically lagged behind RAPS risk scores.

We recently updated the prior survey measuring the difference between RAPS-based and EDS-based Part C risk scores using final PY 2019 diagnosis data scored under both the PY 2019 and PY 2021 risk score models.

Survey results

We surveyed a nationwide sample of Milliman’s 2021 bid clients, representing approximately 9 million member months across over 250 bids (defined as a plan and segment combination). While many MAOs were initially concerned about the transition to encounter data and the potential impact it may have to their revenue, our survey results show that not only have MAOs closed the gap between their RAPS and EDS Part C risk scores, but on average EDS risk scores are now slightly higher than RAPS risk scores. The EDS risk scores were on average 0.5% higher than RAPS risk scores on a PY 2021 risk score model basis.

Figure 1 on page 2 shows the percentile range of Part C EDS/RAPS risk score differentials by PY model and plan type. The plans are grouped into the following categories: general enrollment plans, special needs plans (SNPs), and employer group waiver plans (EGWPs). The EDS/RAPS differential is defined as the EDS risk score divided by the RAPS risk score minus 1.

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² This does not apply to Program of All-Inclusive Care for the Elderly (PACE) plans, which will continue to use RAPS and FFS data.
A positive value indicates the EDS risk score is higher than the RAPS risk score.

**FIGURE 1: EDS/RAPS DIFFERENTIAL UNDER PY 2019 AND PY 2021 PART C MODEL**

![Graph showing the differential between EDS and RAPS risk scores for the PY 2019 and PY 2021 Part C models.](image)

Figure 2 presents the PY 2021 results from Figure 1 numerically.

**FIGURE 2: EDS/RAPS DIFFERENTIAL UNDER PY 2021 PART C MODEL**

<table>
<thead>
<tr>
<th>PLAN TYPE</th>
<th>20TH</th>
<th>50TH</th>
<th>80TH</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Plans</td>
<td>(0.9%)</td>
<td>0.5%</td>
<td>1.9%</td>
</tr>
<tr>
<td>General Enrollment</td>
<td>(0.7%)</td>
<td>0.8%</td>
<td>1.9%</td>
</tr>
<tr>
<td>SNP</td>
<td>(1.3%)</td>
<td>(0.1%)</td>
<td>1.6%</td>
</tr>
<tr>
<td>EGWP</td>
<td>(0.1%)</td>
<td>1.0%</td>
<td>2.1%</td>
</tr>
</tbody>
</table>

Our survey suggests SNPs on average could be at a slight disadvantage compared to general enrollment plans as risk scores transition to 100% EDS. Under the PY 2021 risk score models, EDS risk scores are approximately 0.8% higher than RAPS risk scores for general enrollment plans, while EDS scores are approximately 0.1% lower than RAPS risk scores for SNPs.

This survey is an update to a series of similar surveys completed in prior years. Each survey was based on a large nationwide data set, although the actual members and plans included have varied from survey to survey. We first completed this survey on PY 2016 risk scores when CMS began blending the RAPS and EDS risk scores and observed EDS risk scores lagging behind RAPS risk scores by an average of approximately 4%. At that time, the gap in the risk scores was more directly correlated with the issues of EDS data submission quality and error handling. Because the diagnoses were run through the same risk score model at the time, the model was not a source of the risk score differences between RAPS-based and EDS-based risk scores. Similarly, we observed EDS risk scores lagging behind RAPS risk scores by approximately 2.5% in PY 2017. We now see in the current PY 2019 survey that EDS risk scores are on average higher than RAPS risk scores by 0.5%. The increase in EDS risk scores relative to RAPS risk scores observed in the PY 2019 survey compared to prior survey results may be due to MAOs focusing on improving the quality of their encounter data submissions and error handling, among other contributing factors.

Beginning in 2019, the RAPS and EDS risk scores are no longer calculated under the same risk score model, so the RAPS and EDS risk scores will inherently be different even for an identical set of diagnoses submissions. In addition to variation introduced by the different underlying RAPS and EDS models, risk scores may also vary due to:

- Different logic used for EDS versus RAPS filtering (present in the PY 2016 and PY 2017 surveys referenced above)
- The inclusion of inpatient RAPS diagnosis codes in the EDS risk scores
- Different normalization factors applicable to the RAPS and EDS risk score models
- MAOs prioritizing EDS submissions relative to RAPS submissions

MAOs should measure their own EDS to RAPS risk score differentials and compare them to these survey results as benchmark comparisons.

As MAOs look ahead to 100% EDS-based risk scores in PY 2022, they should consider the impact that removing the supplemental inpatient RAPS diagnosis codes would have on their EDS risk scores if CMS decides to discontinue this supplementation.

MAOs should also consider how other recent trends, including the ongoing COVID-19 pandemic and the increased use of telehealth services, will affect both RAPS and EDS risk scores.

**Data, considerations, and methodology**

The risk scores in this survey are based on CMS Part C beneficiary-level files released to MAOs on April 16, 2020. Diagnoses for both RAPS and EDS scores are based on 2018 dates of services submitted through January 31, 2020. RAPS risk scores are calculated using diagnosis codes from RAPS and Medicare fee-for-service (FFS) claims. EDS risk scores are calculated using diagnosis codes from EDS, FFS, and inpatient RAPS diagnoses. Underlying risk scores were normalized using the PY 2019 and PY 2021 normalization factors and MA coding pattern adjustment factors.
The RAPS risk scores are calculated under the 2017 CMS-Hierarchical Condition Category (HCC) model for both PY 2019 and PY 2021. The EDS risk scores are calculated under the 2019 CMS-HCC model for PY 2019 and the 2020 CMS-HCC model for PY 2021. The underlying risk scores include frailty adjustments, where applicable. The results of our survey exclude end-stage renal disease (ESRD) and hospice members. Plan segments with fewer than 100 member months were excluded from the survey results.

The calculated differences in risk scores are multiplicative. Percentiles are calculated at the plan segment level and are not member-weighted. Positive differences represent a higher EDS risk score than RAPS risk score.