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# Medicare HI Trust Fund Solvency Estimates Assuming MA Utilization Levels

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# Executive Summary

The Medicare program is funded by two reserves, the Hospital Insurance (HI) Trust Fund for Medicare Part A, including Part A payments allocated to Medicare Advantage plans, and the Supplementary Medicare Insurance (SMI) Trust Fund for Medicare Part B and Part D. The 2023 Medicare Board of Trustees report projects the HI Trust Fund will be insolvent by 2031.<sup>1</sup>

Medicare Part A covers inpatient hospital stays, skilled nursing facility (SNF) stays, certain home health (HH) visits, and hospice care. Various studies have found that Part A utilization in Medicare Advantage (MA), as measured by patient days, is lower than utilization in Medicare fee-for-service (FFS). Given these findings, AHIP commissioned Avalere to conduct an analysis, using 2018 and 2019 claims data, to determine how the solvency of the HI Trust Fund could be impacted if FFS utilization was at similar levels to MA.

Avalere estimated HI Trust Fund balances under an alternative scenario assuming that utilization in FFS, as measured by patient days per user, was at the same level as MA. The services assessed in the analysis included inpatient, SNF, and HH (covered by Part A). Avalere estimated how the solvency of the HI Trust Fund could be affected assuming this alternative utilization. This analysis included the change in total Part A spending, the change in the balance of the HI Trust Fund, and the change in the year in which the HI Trust fund would become insolvent. Avalere developed a model to adjust the actual FFS utilization based on the disease and demographic characteristics of the MA enrollees using these services to account for any discernible differences between MA and FFS beneficiaries.

## Key Findings

- **MA vs. FFS Utilization Differences:** For all Part A services analyzed, MA utilization, as measured by patient days, was lower than FFS. Between 2018 and 2019, the differences between MA and the alternative, utilization-based scenario were 36% for inpatient, 14% for SNF, and 28% for HH.
- **HI Trust Fund Solvency Projection:** The HI Trust Fund would remain solvent an additional 17 years until 2048, if FFS utilization levels were similar to MA utilization levels.

## Background

Medicare is administered by the Centers for Medicare & Medicaid Services (CMS) and provides health insurance to approximately 66 million individuals.<sup>2</sup> Medicare is funded through two separate trust funds: the HI Trust Fund, which covers Part A benefits, including Part A services provided by MA plans to their enrollees, and the SMI Trust Fund for Medicare Part B and Part D.

### Medicare HI Trust Fund Revenue Sources

Medicare Part A covers inpatient hospital stays, SNF stays, certain HH visits, and hospice care. Medicare Part A is primarily funded via tax revenue — payroll taxes on earnings that are shared equally between employers and employees. In addition to payroll taxes, the HI Trust Fund may generate revenue from other sources, including premiums paid by voluntary enrollees not eligible for premium-free Medicare Part A, taxes paid on Social Security benefits, and interest on federal securities held by the HI Trust Fund.<sup>3</sup>

The HI Trust Fund is considered insolvent if the Trust Fund is unable to pay its full expenses from Trust Fund assets. If the HI Trust Fund were to reach insolvency, current law requires that CMS lower Medicare payments to Medicare Part A service providers (e.g., hospitals, SNFs).

### Medicare SMI Trust Fund Revenue Sources

Medicare Part B and Part D are funded through general revenues and beneficiary premiums. Unlike Medicare Part A, Medicare Part B and Part D are fully funded through both federal contributions from the United States Treasury and beneficiary contributions (i.e., premiums and cost sharing). Beneficiary premiums are adjusted annually to cover future projected costs, which eliminates the risk of Part B or Part D insolvency.

### Medicare Advantage Revenue Sources

Medicare Part C, also known as MA, is not separately financed from Medicare FFS. MA health plans cover Medicare Part A, Part B, and typically Part D benefits. To enroll in a MA plan, a beneficiary must be enrolled in both Medicare Part A and Part B. Funds for payments made to MA plans are drawn from the Medicare Trust Funds, with those MA funds allocated from each trust fund according to the share of overall Medicare spending coming from each fund.<sup>4</sup> Avalere analysis of Medicare data shows enrollment has grown considerably in the past decade, and now about half of all Medicare beneficiaries

are in a MA plan.<sup>5</sup> According to the Congressional Budget Office (CBO), the proportion of Medicare beneficiaries enrolled in MA plans is expected to reach 62% by 2033.<sup>6</sup>

Provision of care coordination and care management services may differ depending on whether a patient has MA or FFS coverage. For example, MA patients in managed care plans may have a central provider (i.e., a primary care provider) to coordinate care. Furthermore, MA plans are paid per member, whereas providers in FFS are generally paid per service.

## Study Objective

- The Medicare Board of Trustees projects the HI Trust Fund will be insolvent by 2031.<sup>7</sup> The potential insolvency of Medicare has heightened stakeholder and policymaker attention around how to promote efficiency and preserve quality in Medicare utilization. Given the ramifications of insolvency and renewed public focus on addressing it, AHIP asked Avalere to assess how changes in FFS utilization may prolong HI Trust Fund solvency.
- For this analysis, Avalere compared the timeline of projected Medicare insolvency if FFS Part A utilization rates were at the same level as MA utilization rates. The Part A services included in this analysis were inpatient, SNF, and HH care. While hospice is covered by Medicare Part A, MA plans do not cover hospice services. As such, this analysis did not include hospice utilization.
- Avalere calculated the annual FFS spending amount for each Part A service (inpatient, SNF, HH) if FFS utilization rates were the same as they were in MA. Utilization rates were defined as the number of days in which an enrollee used the service. For this analysis, Avalere adjusted FFS utilization based on the disease characteristics and demographics of MA for each type of service. For each type of service, Avalere developed a model to account for differences between FFS and MA populations.
  - To conduct this analysis, Avalere leveraged the 100% Medicare FFS claims and Medicare Advantage Claims from Inovalon's MORE2 registry® for 2018 and 2019. Avalere identified beneficiaries using inpatient, home health, and SNF services from FFS and MA claims data where the beneficiaries had both Part A and Part B enrollment.

## Results

### MA vs. FFS Utilization Differences

Across all Part A services analyzed, MA utilization, as measured by length of patient days, was lower than FFS utilization. In 2018 and 2019, the utilization differences when

adjusted to standardize the MA and FFS populations were 36% and 37% for inpatient, 15% and 12% for SNF, and 29% and 28% for HH, respectively (Table 1).

**Table 1. Difference Between MA and FFS Utilization, 2018 vs. 2019**

Year	Setting	FFS Patient Days Per Beneficiary (Actual)	FFS Patient Days Per Beneficiary (Adjusted)	MA Patient Days Per Beneficiary	Percent Difference (Actual vs. MA)	Percent Difference (Adjusted for MA Disease and Demographic Characteristics)
2018	Home Health	77.4	45.4	32.4	58%	29%
2018	Inpatient	11.5	13.9	8.9	23%	36%
2018	SNF	36.1	41.3	34.9	3%	15%
2019	Home Health	82.4	44.8	32.4	61%	28%
2019	Inpatient	11.9	13.4	8.5	29%	37%
2019	SNF	35.5	39.4	34.5	3%	12%

As noted in Table 1 above, the adjustment for population differences (disease characteristics and demographics) resulted in lower FFS utilization for home health services than the unadjusted utilization (though it was still higher than actual MA utilization). Conversely, the adjustment resulted in higher utilization for SNF and inpatient services. These results were due to characteristics of the models developed by Avalere for this analysis.

In particular:

- Seven of the 10 home health model coefficients tend to reduce FFS predicted home health days. These coefficients include being dually eligible for Medicare and Medicaid, as well as having the following diagnoses: diabetes with complication, heart failure, and presence of refractive error or skin disorders. The MA population has a greater proportion of dual eligibles and individuals with the referenced diseases, and individuals with those demographic and disease characteristics tend to have higher home health utilization. If MA home health patients instead had the same percentages of these factors as FFS, MA home health utilization would have been even lower than what was observed.

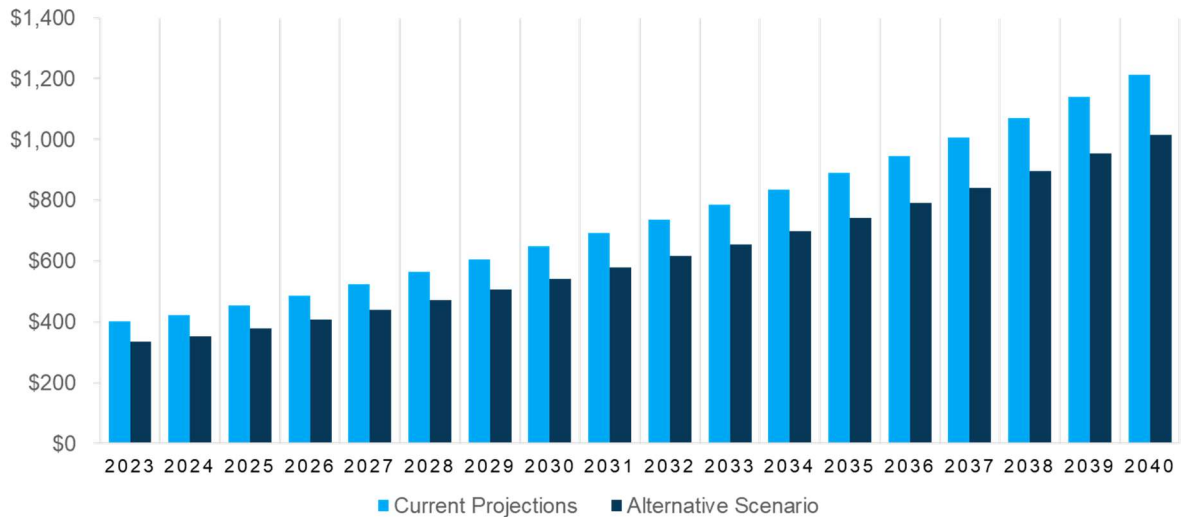
- Almost 60% of inpatient risk adjustment model coefficients tend to increase predicted FFS days including the following diagnoses: neurocognitive disorders, aplastic anemia, muscle disorders, and nervous system signs and symptoms.
- Similarly, almost 60% of the SNF risk adjustment model coefficients tend to increase predicted FFS days including the following diagnoses: fungal infections, dysphagia, neurocognitive disorders, fever, and depressive disorders.
- If FFS Part A utilization was the same as MA utilization, spending would be lower, which may increase the solvency period of the HI Trust Fund. The HI Trust Fund would remain solvent until 2048 (Figure 1 and Figure 2).

**Figure 1. HI Trust Fund Projections, Current vs. Alternative, 2023 to 2048**





**Figure 2. Overall\* Part A Spending Under Current Projections and Alternative, 2023 – 2040 (in Billions)**



\*Overall includes all Part A services except hospice care. Hospice care is excluded because it is not covered by MA.  
MA: Medicare Advantage; HI: Hospital Insurance

## Limitations

This analysis considers a potential alternative scenario if FFS Medicare enrollees had utilization patterns similar to MA enrollees. The analysis assesses neither the impact of lower utilization on payment and provider revenue nor any connection between utilization and quality of care. That is, this analysis does not consider any potential impacts of lower utilization in FFS on provider revenue, nor does it assess any other interactions that could occur with the FFS prospective payment systems that are, in part, based on utilization of FFS services. This study also does not assess differences or similarities in the quality of care provided between MA and FFS. As such, there may be differences between the MA and FFS study populations that are not fully accounted for by the risk adjustment models developed for this analysis. Finally, this analysis does not evaluate the health status of MA enrollees as compared to FFS enrollees and should not be used to infer that one population is healthier or sicker than the other.

## Discussion

Utilization rates for Medicare Part A services affect the outlook for the solvency of the HI Trust Fund. Between 2018 and 2019, utilization, measured by patient days, was lower in MA than FFS. The differences in utilization varied based on the setting of care.

The findings of this analysis are consistent with several studies that have reported lower rates of SNF and HH use among MA enrollees and shorter lengths of stay in SNFs and Inpatient Rehabilitation Facilities (IRFs) for MA enrollees, than people with FFS Medicare. In particular, a 2021 evaluation of utilization of services across MA and FFS found that MA was associated with a reduction in Part A spending compared to Medicare FFS.<sup>8</sup> This study also noted that there was evidence to support that MA reduced hospitalizations, which could directly reduce the use of Part A services and spending.<sup>9</sup>

## Conclusion

This analysis considers HI Trust Fund solvency under an alternative healthcare utilization scenario. The analysis finds that if FFS utilization was consistent with MA, solvency for the HI Trust could extend to 2048. Changes in FFS utilization that align with MA utilization rates could result in a 17-year extension of the HI Trust Fund.

## Methodology

Medicare FFS data was sourced from a 100% sample of Medicare Part A and B claims data from 2018 and 2019, accessed by Avalere via a research collaboration with Inovalon, Inc. and governed by a research-focused CMS Data Use Agreement (DUA). The MA data came from the MORE2 Registry®, accessed by Avalere via a research collaboration agreement with Inovalon, Inc. Avalere identified beneficiaries using inpatient, home health, and SNF services from FFS and MA claims data where the beneficiaries had both Part A and Part B enrollment. Avalere then calculated the number of patient-days per beneficiary for each of these services in FFS and MA claims.

Avalere developed risk adjustment models, based on the demographics and disease characteristics of the MA population, to adjust the FFS per-patient utilization counts in each setting to equal those in MA if patients had the same characteristics. Avalere's risk adjustment models estimated the length of stay for Medicare FFS patients in each setting, assuming the FFS members had the same characteristics (e.g., demographics, diagnoses) as the MA plan members who used services in that setting. To be clear, the model's predicted length of stay was contingent on different MA patient characteristics (e.g., age, gender, diseases).

Avalere also created predictive statistical models for each setting (inpatient, SNF, HH) that identified the factors most associated with the count of patient days in that setting. The demographic factors included in the model were age, sex, dual status, and original reason for Medicare eligibility. Subsequently, Avalere then applied the model to the Medicare FFS population to determine what the FFS length of stay for each service type



(e.g., inpatient, SNF, HH) would be if the FFS patients had the same characteristics (e.g., demographics and diseases) as the MA patients.

# Acknowledgments

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