Project Sword 2.0 – A MedPAC Rebuttal

Analyzing cost report data to reveal the financial status and trends of home health agencies

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Acknowledgements

I started this project in July of 2023, it has now been two years. I still owe a debt to those that I acknowledged last year in Project Sword, John Loury, David Kerns and my wife.

Through Project Sword last year, I gave my best effort to develop this data and deliver it to the people in a position to leverage it and act to solve the problems described in the report. When I began, I had a naïve confidence that this would be easy. Once people saw this data and how it supported their position to fix home health, they would jump at the chance to work with me to improve it and deliver it to stakeholders.

I wrote a blog post with 36 weekly entries. I developed the cost report data in Sisense and spent hundreds of hours and thousands of dollars developing this data and getting this message out with Project Sword. I spent a lot of additional time trying to get the attention of people I thought could help. Project Sword was referenced in trade publications, and I even presented the report with Beau Sorenson at the final NAHC annual conference in Tampa last October. Despite this effort, I failed to get anyone to engage with me and leverage the opportunity I felt this data represented.

As what I considered to be my final act, I published Project Sword through my website as a comment to the 2025 proposed rule. By this time, I was no longer as confident that CMS or anyone else would acknowledge the value of this project or act on the data. After submitting this comment, I returned my attention to my golf game. I had come to peace with the fact that my project had failed, but I had given it my best effort. I was in the healthcare software business for 32 years through my company, MedTranDirect, it was not the first time this had happened. At the end of August, that all changed.

Last summer (2024), Stacey Smith, VP of Government Affairs for AccentCare, had been meticulously reviewing comments to the proposed rule. She found my comment, visited my website and read the Sword report. We connected through a LinkedIn message soon after.

She saw the value in my work, and she convinced me to keep trying. I returned to the effort, purchasing a production Sisense environment and working to develop this data again, improving the

data model and expanding the scope and content of the dashboards. Together, Stacey and I have developed a virtual relationship that I value.

Many times in my career I have developed a connection with an employee, client or vendor where chemistry developed between us and we were able to accomplish tasks we would have initially thought were impossible. This is what has happened to me with Stacey.

Not only did she inspire me to try this again, but she has also provided a perspective that has helped me redevelop the data and explore areas of post-acute care I would have been unable to find or visualize on my own.

Whatever value this project might produce for home health this time around, we will have Stacey Smith to thank for it.

Executive Summary

CMS has proposed another round of cuts to home health. This action is supported by MedPAC's analysis of home health and their recommendations to cut home health base rates again in 2026 by 7%.

This report uses MedPACs own data analysis from their March 2025 report to congress and my own data that I have developed using the same cost reports processed through the Sisense business intelligence tool. Project Sword 2.0 shows through this data that home health is contracting due to a base rate set by CMS that is too low to keep the industry viable. MedPAC's conclusions in their report are based on faulty and incomplete data that they represent to support their view of home health profitability using only Medicare FFS revenue.

MA profitability is omitted and ignored even though this is now over half of the business of HHAs. This omission causes the MedPAC view of home health financial viability to be inaccurate and represents a flawed perspective that they share with congress. This inaccurate representation of HHA financial health has jeopardized the industry.

These are the major data points that support this conclusion:

- MedPAC does not accurately count HHAs. The actual number of active agencies is only 61% of what MedPAC counts and it is declining.
- MedPACs own data and CMS Market Saturation data show that home health is shrinking, and fewer Medicare beneficiaries have access to home health.
- MedPAC represents that the all-payer profit margins for HHAs was 8.2% in 2023, my analysis of the same cost report data is that it was 1.32%.
- In 2023, when a patient transitioned from coverage under Medicare FFS to Medicare Advantage, the profit margin for these encounters went from 25.89% under Medicare FFS to -41.13% under MA, on average.
- From 2020 to 2023, the percentage of home health census covered by Medicare FFS went down from 49.21% to 42.47%. MA went up from 47.49% to 54.58%
- This low all-payer profit margin, the transition to MA, the continued CMS cuts to the PDGM base rate and the promise of more cuts in the future are linked to the decline of home health utilization and the reduction of HHAs.
- Private equity firms are aware of the situation, even if MedPAC is not. Their own due diligence

shows them the same problems evident in the cost reports. Given this situation, they have shown little interest in this sector of healthcare even though all other economic factors point toward growth and success.

- CMS has the only tool available that can fix this, the ability to change the base rate for FFS home health payments. What they do next with this base rate will determine if the future of home health gets better or worse.

The time to act is now. Pausing these cuts in 2026 is not a solution that will fix this problem or even slow the decline. The CMS base rate for HHAs must be reset to a value that can make the home health industry grow again. Without this, there will be a collapse like we experienced with the banking industry in 2009 that will ripple through the rest of Medicare causing a healthcare crisis and massive increases in Medicare spending overall.

Introduction

This report, Project Sword 2.0, is a second version of a project I developed last year. Like the first version, it is intended to develop data using cost reports and other sources to determine the financial health of the home health industry and compare these findings to the report produced by MedPAC in March of 2025. In both MedPAC's report and Sword 2.0, we focus primarily on the most recent cost report data from 2023.

In this response to MedPAC's report on CMS base payment recommendations, I will provide sections of this MedPAC report in my rebuttal of their findings. These sections are literally "taken out of context". They are represented as screen shots with only the content I am focusing on in my response.

Everyone should read this MedPAC report that has an interest in this subject matter, especially Chapter 7 on home health. It will provide this missing context and in fairness to MedPAC, it represents their voice in conveying what they want to say on this subject. You should read and understand their content as well as my response to understand either document or the subjects they address fully.

Project Sword 2.0 will be published on my website along with the cost report data used for this report. I have converted this data into spreadsheets, one with all cost reports and another with the cost reports left after my trimming for outliers. Using these spreadsheets, you can check that the data represented in your own cost reports is correct. You can also reproduce the 2023 data in the charts I have provided in this report using your favorite spreadsheet application.

Using this process, I have validated this data and the associated formulas with the CFOs of very large and small organizations. These CFOs have validated their own reports and the methodology used to produce their charts on profit margins. This validation included over 1000 cost reports over the last two years.

I have also documented and validated the process used to trim the data and remove outliers. The charts you will see built from this data are reproducible by anyone who might want to try using either the raw data they download from CMS or the spreadsheet data I have created and published by reformatting this data. As I did in the first version, I have removed the CCNs and names of the HHAs in this data, but you can locate your own cost reports by the report numbers.

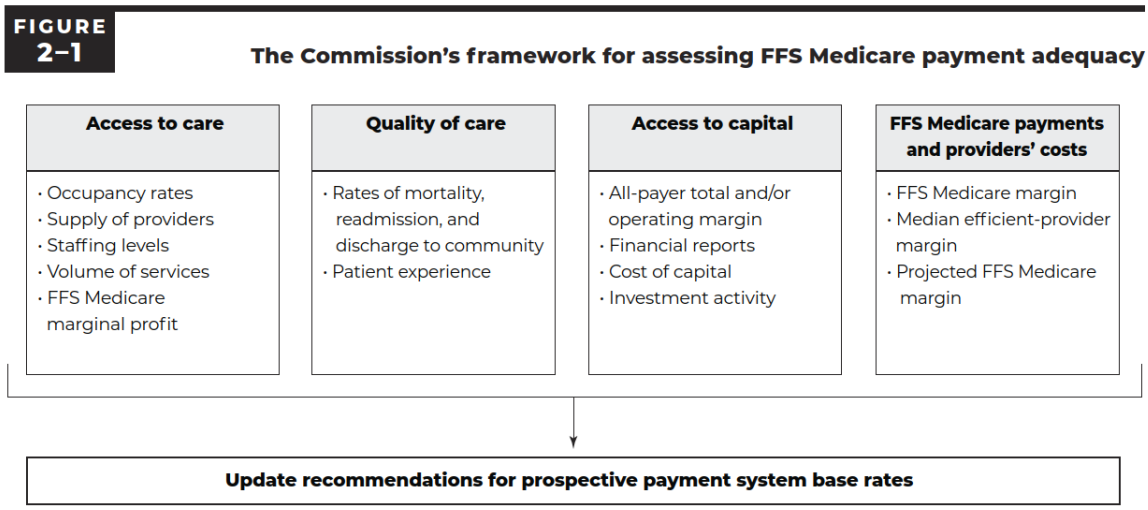
My hope is that this project and all the time I have spent getting this far will make a difference. If you have questions or concerns about this project, you can contact me through my website or by email, kalon@kaloncon.com.

MedPAC's Assessment of Payment Adequacy

In the first chapter of their report, MedPAC provides details regarding the financial challenges faced by Medicare given the increasing age of the population and the associated costs of the Medicare program. These challenges are significant. MedPAC makes recommendations in their reports intended to balance these challenges in spending against the needs of Medicare beneficiaries to have access to care covered by the Medicare program. This includes access to care in the home in their chapter on home health (Chapter 7).

In their second chapter, MedPAC describes their methodology for determining payment adequacy. This is relevant to Sword 2.0 in that the conclusions derived from the cost reports and other data by MedPAC and my conclusions using the same data through my own research, provide opposing points of view on whether these goals are being met for the home health industry.

In Figure 2-1 of the MedPAC report, they provide a chart that describes their framework for assessing Medicare payment adequacy by provider sector.



Note: FFS (fee-for-service). We use multiple measures of margins for different purposes in our payment-adequacy analysis (see text box). We define "FFS Medicare marginal profit" as ((FFS Medicare payments – costs that vary with volume) / FFS Medicare payments). This marginal profit is an indicator of beneficiaries' access to care. The "all-payer total margin," defined as ((payments from all payers and sources – costs of providing services) / payments from all payers and sources), is a measure of a sector's access to capital. For the hospital sector, we also evaluate the "all-payer operating margin," which is defined as ((payments from all payers and sources except investments and donations – costs of providing services) / payments from all payers and sources except investments and donations). "FFS Medicare margin," defined as ((FFS Medicare payments for services – allowable costs of providing services) / FFS Medicare payments for services), is a sector-wide measure of the relationship between FFS Medicare's payments and providers' costs for services.

Source: MedPAC.

These topics are meant to measure all provider types involved in the Medicare program and they are referenced in each chapter covering each healthcare sector.

This chart is almost the same as the one published by MedPAC last year except they have added "Investment Activity" under Access to Capital and they provide a more detailed explanation of the calculation of margins at the bottom of this table. Like last year, MedPAC research on Quality of care aligns with the data I have seen elsewhere on this subject and is not directly relevant to the financial health of HHAs outside of Value-Based Payment (VBP) calculations.

This leaves the three other categories and their subtopics as they apply to HHAs.

- Access to Care
    - Supply of providers
    - Volume of services
    - FFS Medicare marginal profit
- Access to Capital
    - All-payer total margin
    - Financial reports
    - Cost of capital
    - Investment Activity
- FFS Medicare Payments and Provider costs
    - FFS Medicare margin
    - **Median efficient provider margin**
    - Projected Medicare margin

Except for "Median efficient provider margin", MedPAC's Chapter 7 on home health addresses each of these topics to some degree. In Sword 2.0, I will compare data I have collected through the cost reports with MedPAC data, but I will also provide alternate explanations for the data provided by MedPAC.

Capacity and Supply of Providers

MedPAC begins their chapter on home health with two sweeping statements about the industry. Indicators of FFS Medicare payment adequacy for home health were positive in 2023 and Medicare FFS beneficiaries have good access to home health care. I intend to show that the opposite is true for both statements.

MedPAC leans on one data point primarily to justify its position that Medicare FFS beneficiaries have no problem getting care in the home when they need it:

"In 2023, over 98% of FFS beneficiaries lived in a zip code served by at least two HHAs."

They repeat this several times in the chapter, each time it is intended to reinforce their position that the supply of HHAs meets or exceeds the demand for home health services.

To unpack this, we need to begin with the data being used to back up this assumption. How does MedPAC define an HHA? Where does this data come from? Do all HHAs in this data exist and are they providing services to beneficiaries?

In Table 7-1, MedPAC provides counts by year of the HHAs based on several different data sources they list below this data:

TABLE 7–1

Number of HHAs increased in 2023

	2019	2020	2021	2022	2023	Average annual percent change 2019–2023	Average annual percent change 2022–2023
Participating home health agencies	11,356	11,386	11,506	11,657	12,057	1.5%	3.4%

Note: HHA (home health agency).

Source: MedPAC analysis of the CMS Provider of Services file, home health standard analytic file, and the 2024 annual report of the Boards of Trustees of the Medicare trust funds. In previous years, MedPAC reported the number of HHAs using data from CMS survey and certification files, which are no longer available, so this report's count of HHAs in 2022 and previous years differs because of the use of the Medicare Provider of Services file.

The issue you will find with the data sources used by MedPAC to come up with these counts is that HHAs are included in these sources that no longer exist or were established but never opened. The other problem is that if you combine these data sources, any HHA identified in any of them is included. In other words, all you must do is show up in one of these sources to be counted as a valid, active HHA by MedPACs definition. This process was designed and intended to come up with the maximum number of HHAs.

Getting a count of HHAs is not as simple as it sounds. You need a trusted data source. You need a definition that can be used to describe an active agency from this source so you can count them. If you can, you need to verify this data through another trusted data source.

For Medicare FFS HHAs, which is all of them, the best source for counting HHAs would be the FFS claim data. These are the invoices from each HHA to CMS that describe in detail the clinical condition of the patient and the services provided. These are the sources of payment for the HHA so they are the most audited and transparent transactions available between CMS and HHAs. Claims don't have data quality issues to the extent that is present in the cost reports. They are also the most current data source available with a minimum lag time of 4 months from the processing of the claim to availability of the data in the database. You could use this source, along with a definition of an active HHA by claim volume, to count HHAs.

For this report, I am using cost report data. It would be my second choice, but we happen to be working with this data for everything else, so I am going to stick with it here. From an analysis standpoint, the first question is to what extent can we trust this data from the cost reports? How do we know we don't have the same issues MedPAC has from their multiple data sources?

Cost reports are filed by all healthcare provider organizations annually. If you don't submit these reports on time, CMS can suspend payment on your claims. This "disincentive" is responsible for a very high rate of compliance regarding these reports. Some reports are filed late, but eventually they all end up in the database for nearly all agencies that want to continue to stay in business. I have charted this process each year and after the end of the October update, over 95% of the cost reports from the prior year are there. These cost reports are updated quarterly, and each prior year is updated as well as the current one when cost reports are added to the CMS HCRIS database. The last update in April of 2025 added only 16 cost reports for 2023, this year can be considered complete.

If we take MedPACs HHA counts from table 7-1 and compare them to the HHAs that submitted cost reports annually from 2020 – 2023 we see HHA counts somewhat lower than what is reported by MedPAC through their data sources. This difference is partly due to the small number of agencies that failed to submit cost reports and the much larger number of HHAs that exist in the MedPAC data sources, but do not actually exist as active HHAs.

In the cost reports, there is a code that identifies the volume of Medicare FFS activity for the cost report. The values can be L = Low Volume, N = No Volume, and F = Full. These refer to the Medicare census activity. In the cost report data for the L and N cost reports, the volume is so low that CMS excludes their data in the cost report database except for a header record that provides evidence that the provider filed the cost report and when it was processed.

Each year, these L and N cost reports represent about 30% of all the submitted cost reports. During the data validation process for Sword, I discovered that many of these HHAs were at one time active agencies who have since shut down, but the owners of the billing ID want to keep them active for possible future services and transactions.

In this section of their report, MedPAC mentions the growth of agencies in LA County, but they do not seem curious as to why this is the only county with any significant HHA growth and why the number of new HHAs there is growing at an increasing rate. I have shared with some people why I believe this is happening. The data supporting my theory is also present in the cost reports and would be available to MedPAC and others if they simply looked.

For this report, I am going to exclude this topic as it is not aligned directly with the MedPAC base payment recommendations from March, but another subject entirely. However, I have not ignored this topic and the data related to this problem is in the hands of those that are able to use it. For now, simply understand that nearly all these new LA County agencies do nothing to increase the capacity of care in the home or home health services to FFS beneficiaries.

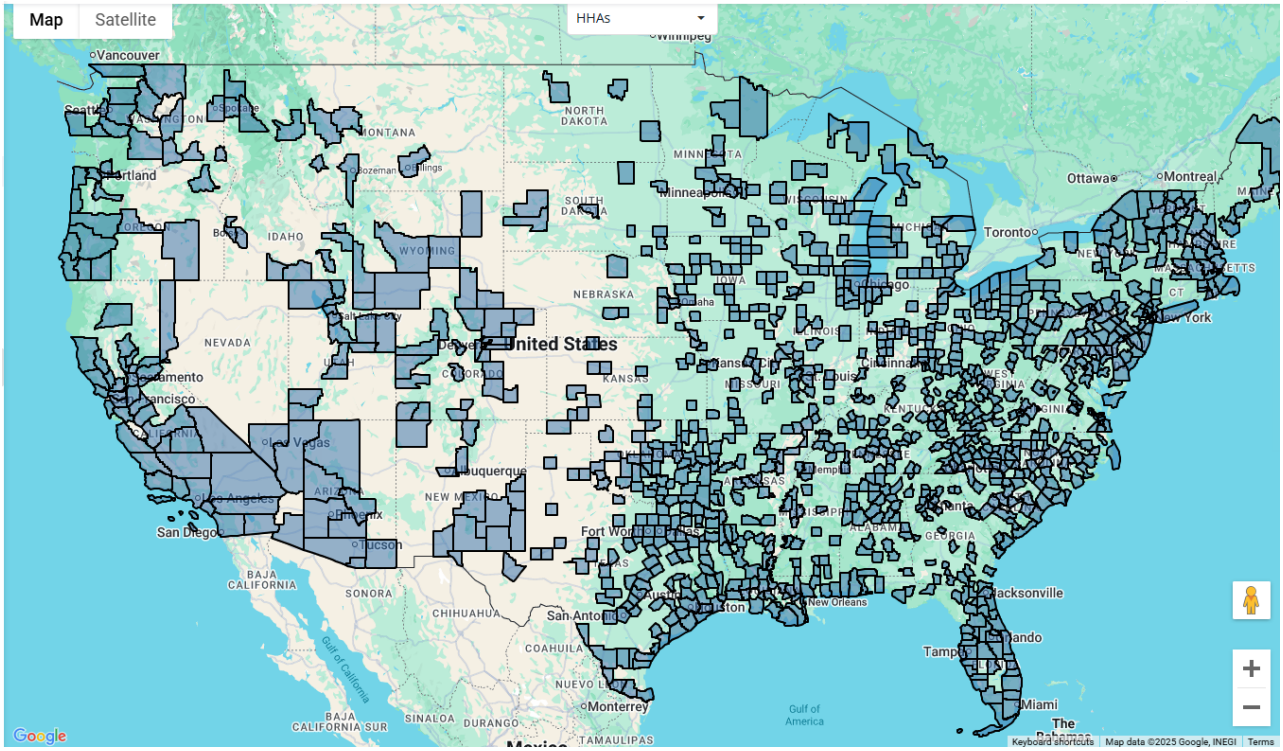
This spreadsheet compares the MedPAC agency counts with HHAs identified in the cost reports. With LA County included, these active agencies in 2023 cost reports are still only about 60% of the agencies counted by MedPAC for the same year.

	A	B	C	D	E
1					
2		2020	2021	2022	2023
3					
4	MedPAC HHA Count from 7-1	11386	11506	11657	12057
5					
6	HHAs in the Cost Reports	9442	10227	10464	10577
7	Low to No Volume HHAs	2485	2968	3182	3239
8	Full Volume HHAs	6957	7259	7282	7338
9					
10	LA County Cost Report HHAs	978	1226	1453	1682
11					
12	Active HHAs (Full without LA)	6244	6452	6333	6222
13					

I believe that this count from the cost reports, without LA County, is much closer to the actual count of active HHAs than what is reported by MedPAC and used for their calculation of access by zip code.

This is confirmed by the CMS market saturation data provided later in this report. This CMS data, using claims, shows a count of HHAs in 2023 of 8,282. Both the cost reports and the market saturation data clearly show that there are far fewer agencies than those counted by MedPAC and that they are declining each year.

After the cost reports are trimmed to include only full volume HHAs, this map shows all the counties that include at least 1 HHA, many are empty.



When you look at other data presented by MedPAC on home health capacity, that data makes much more sense considering the cost report HHA counts showing a much smaller and decreasing number of HHAs.

It is true that part of the overall reduction in services and spending on FFS beneficiaries come from an industry transition from FFS to MA, but ratios should not be affected by this transition. In Table 7-2, MedPAC presents some data that shows that access to home health for FFS beneficiaries is in decline when measured by the share of beneficiaries using home health and the number of 30-day home health periods per Medicare beneficiary.

TABLE 7–2

In 2023, the share of FFS Medicare beneficiaries receiving home health care declined

FFS Medicare volume	2019	2020	2021	2022	2023	Average annual percent change 2019–2023	Average annual percent change 2022–2023
FFS users of home health (in millions)	3.3	3.1	3.0	2.8	2.7	–4.8%	–4.4%
Share of FFS beneficiaries using home health care	8.5%	8.1%	8.3%	8.0%	7.8%	–2.0	–2.3
30-day periods (in millions)	N/A	N/A	9.3	8.6	8.3	N/A	–3.9
30-day periods per 100 FFS Medicare beneficiaries	N/A	N/A	25.5	24.3	23.9	N/A	–1.8
30-day periods per FFS Medicare beneficiary who received home health care	N/A	N/A	3.1	3.0	3.1	N/A	0.5
Visits per FFS user	2.6	2.1	2.1	2.0	1.9	–7.2	–2.5
Total payments (in billions)	$17.9	$17.1	$16.9	$16.1	$15.7	–3.2	–2.6
Payment per FFS Medicare user of home health care	$5,437	$5,591	$5,588	$5,703	$5,811	1.7	1.9
Medicare payment per in-person visit	$180	$211	$220	$232	$237	7.2	2.1

Note: FFS (fee-for-service), N/A (not applicable). CMS implemented a 30-day period as the unit of payment in 2020, so no data on 30-day periods are available for 2019. Not all claims in January and February of 2020 were paid under the new Patient-Driven Groupings Model, so we do not have a full year of data on 30-day periods for 2020.. Percentage changes were calculated on unrounded data.

Source: MedPAC analysis of home health standard analytic files and the 2024 annual report of the Boards of Trustees of the Medicare trust funds.

As MedPAC states in their report, all the other provider payment models are designed to encourage acute care providers to stabilize their Medicare FFS patients and direct them to home health, where costs are lower. As MedPAC mentions in chapter one, Medicare costs are increasing due to an aging population. The baby boomers represent a large wave of these beneficiaries that are flowing into this and all other sectors of healthcare as their need for healthcare services increases.

Why would the use of home health be declining in the face of this increasing demand? The answer is that fewer agencies are around to provide this care, so less people are getting it. The industry is contracting despite this demand.

In the free market, this problem would be solved by increased prices for HHA services that would improve profitability and encourage investors to open new agencies or grow existing ones to meet this demand. Instead, partly due to MedPAC recommendations, CMS has reduced their payments to HHAs each year since 2020 and priced these missing agencies out of the business by making the home health business unprofitable.

I will substantiate this claim through the analysis of profit margins using the same cost report data used by MedPAC. In this section, I will address the remaining MedPAC framework topics as they relate to home health and explain why I see them differently.

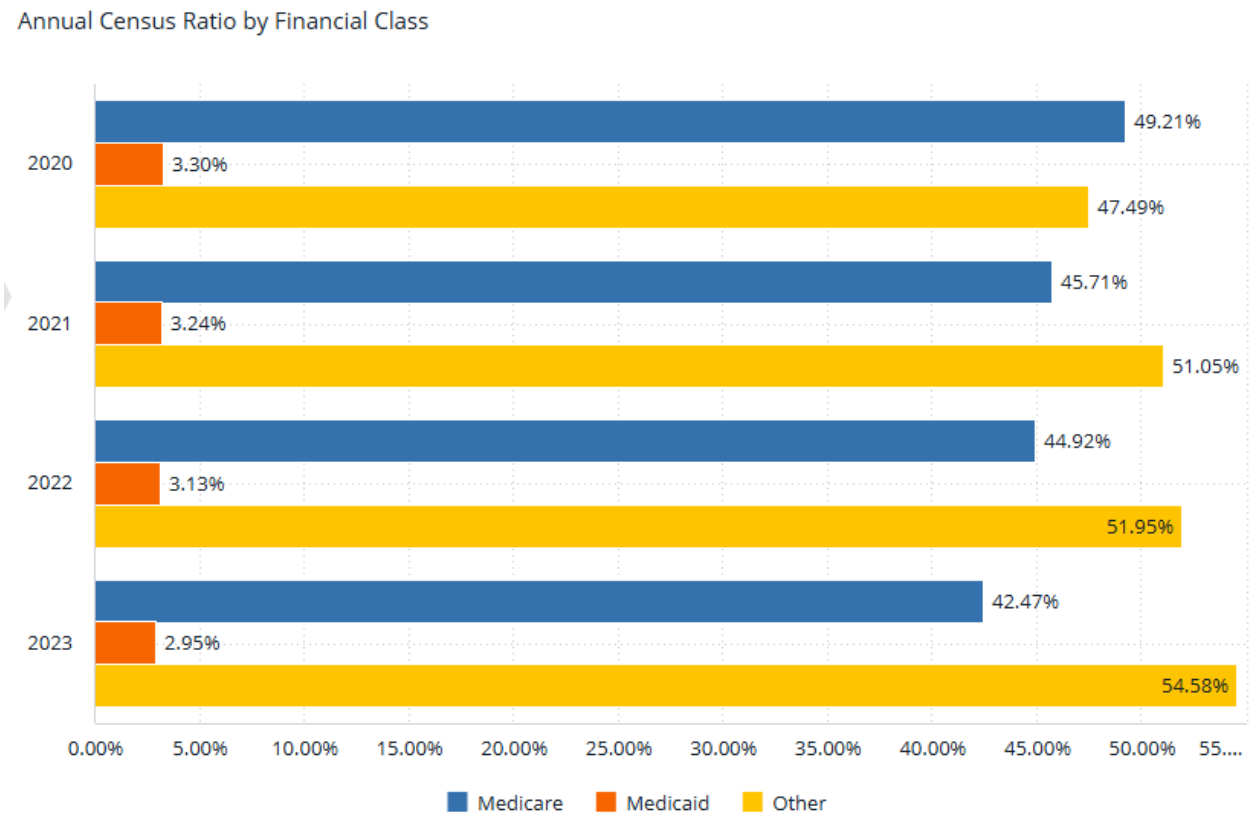
Home Health Margins

Census by Financial Class

To understand the financial condition of the industry, you must understand the business and economic model for HHAs. Who pays them and how? What health plans do they depend on? How are their prices determined? This report is not intended to deal with the problems that exist with this payment model or what needs to be done to fix it. It is intended to measure and describe it.

In 2020, the home health cost report data was expanded to include additional information. The revenue, census, and visit data was not just provided as totals, it was broken down by Medicare FFS, Medicaid, and Commercial Insurance (Other).

When we measure census for these three categories, we are able view the relative volumes of patients for each of these health plans. I will refer to these categories as financial classes, the term used in hospitals. Here is the ratio of Census for HHAs by year and financial class.



Two observations from this chart are important. First is that Medicaid is only 3% of the home health census nationwide. This is not true at the agency level, most agencies are either 0% or somewhat higher than the national average. Still, the important thing to take out of this is that 97% of the national HHA business are patients paid under Medicare FFS or Other insurance.

When we look at this census ratio, we can see it transitioning over time from Medicare FFS to Other. The transition from Medicare FFS to Medicare Advantage is not specific to home health, but to all providers who are paid by Medicare. We know from other provider types and other data sources that this transition from FFS to MA is occurring.

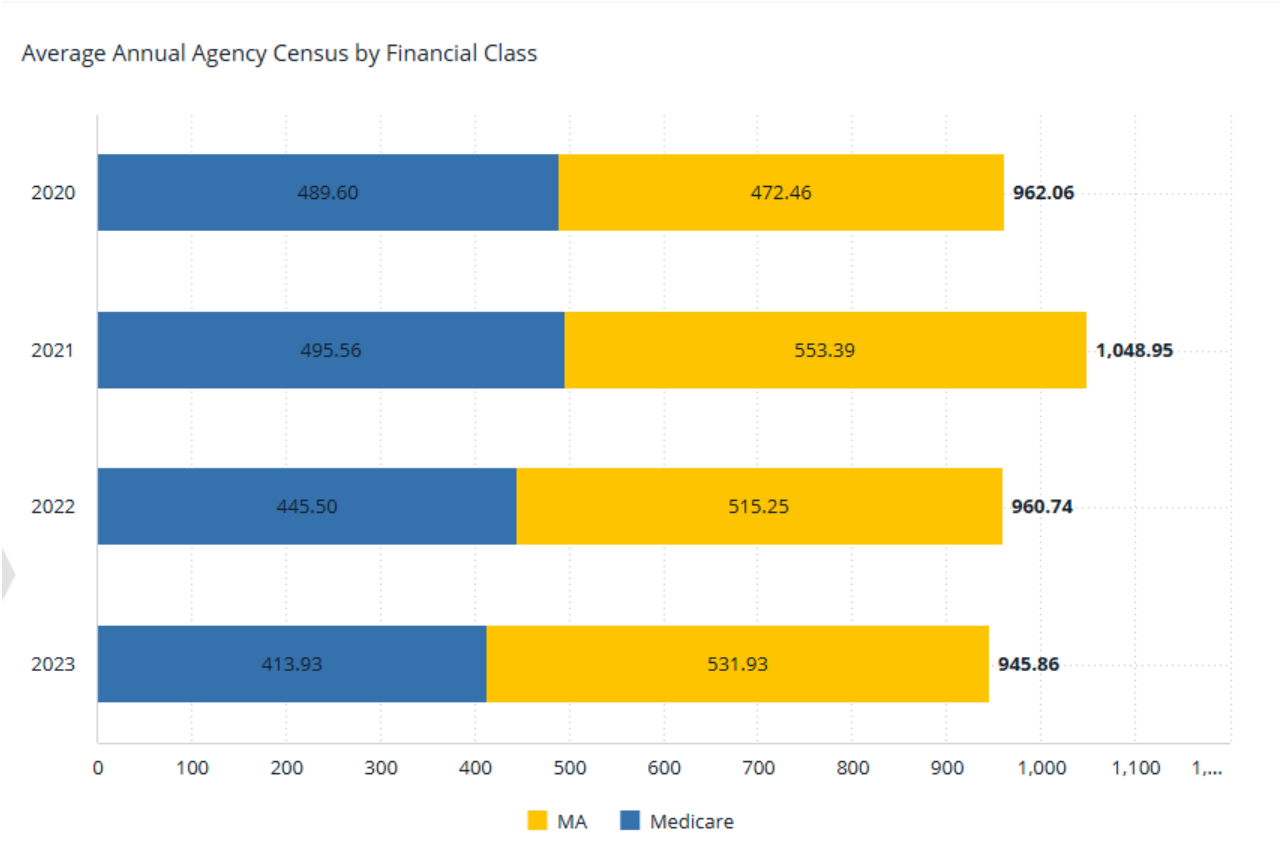
Current online sources show that the percentage of Medicare beneficiaries on MA in 2024 was about 54%. In 2023, it was about 50%.

When we look at the "Other" insurance financial class in the HHA cost reports, we know that this includes MA. The fact that the ratio of "Other" insurance to Medicare FFS is only slightly higher than what other data sources report for the national MA to FFS ratio tells us one important thing that is unique to home health, "Other" revenue and census is almost entirely MA.

If we combine these two observations, we can conclude that the HHA business model consists of two major sources of revenue and census, Medicare FFS and Medicare Advantage (MA).

In the remaining charts, I will remove Medicaid data and label Other as MA so we have a clearer understanding of the impact of this simplified core of the HHA business model.

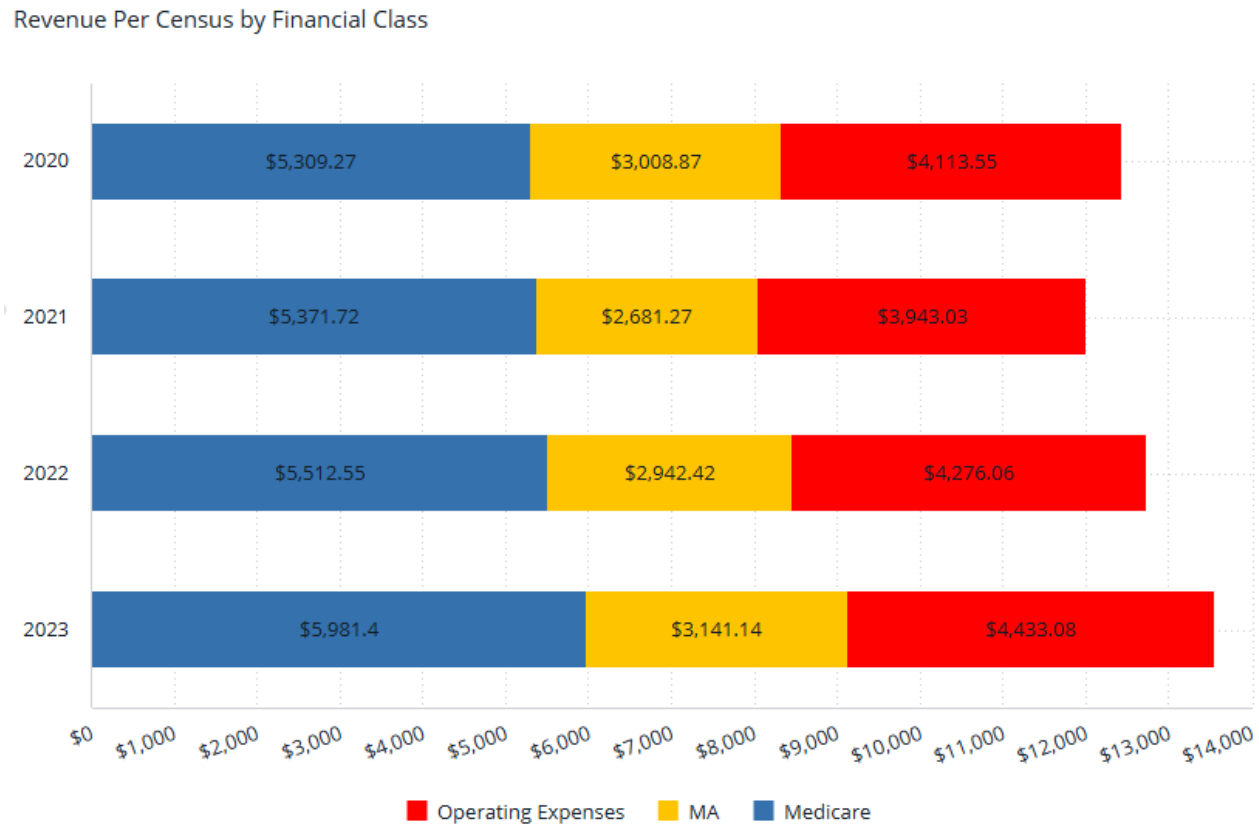
This chart shows average annual census by financial class per HHA and total census for the two financial classes combined.



In the cost report, instead of the 30-day billing period, we have census as a unit of service. Census here is defined as the continued services of one HHA to one unique patient from admission to discharge. We can see that over this four-year period; total census is declining per HHA and more of these patients are paid under MA.

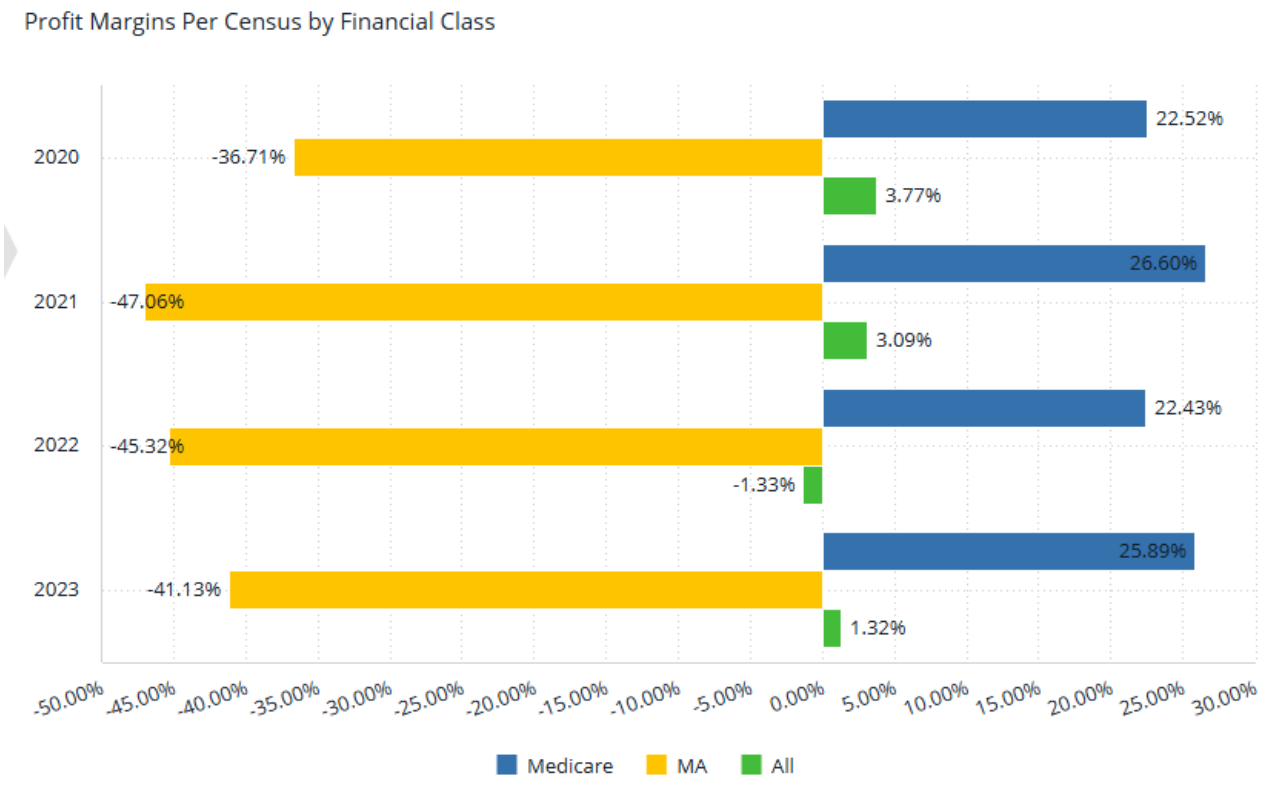
We can take the revenue by financial class and divide it by the census by financial class to get revenue per census. We can also take the operating expenses from the cost report and divide them by total census to get expenses per census. Using a bar chart, we can view their relative size.

Home Health Profit Margins



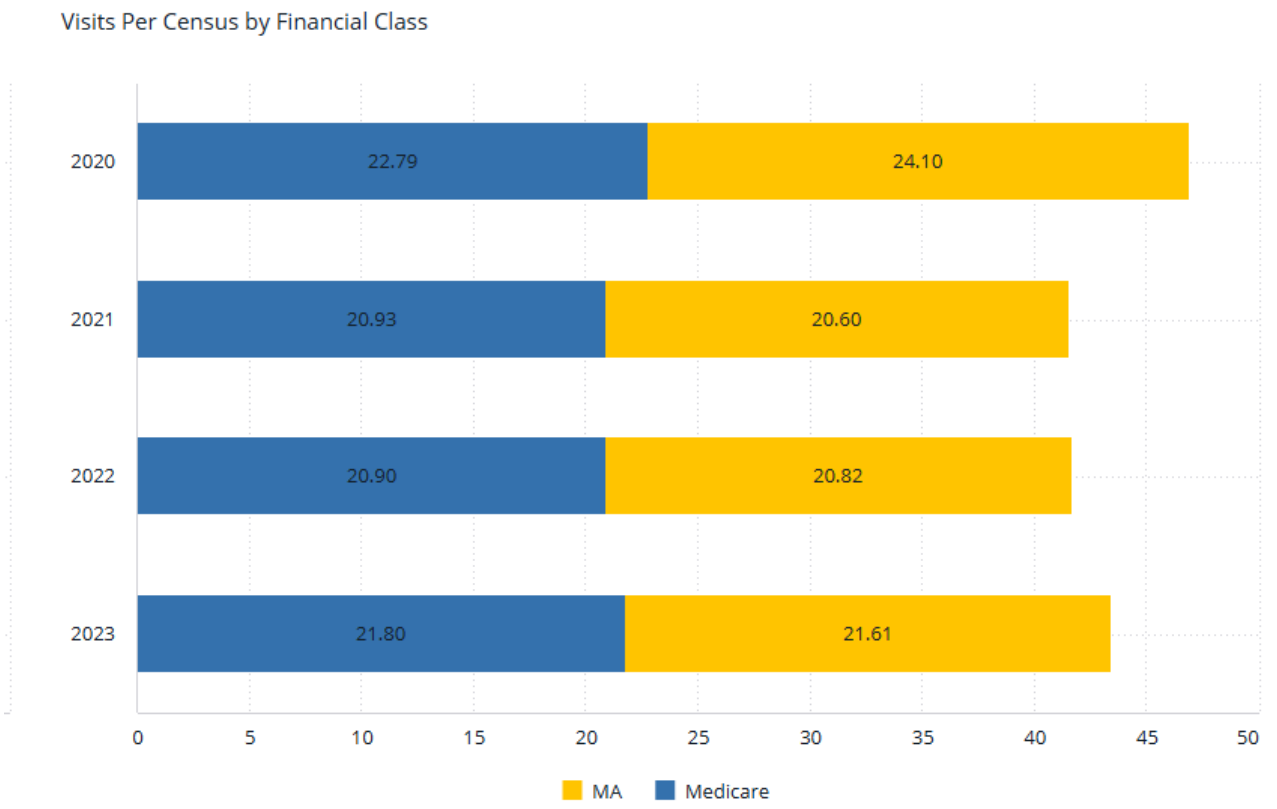
We can see by this chart that Medicare FFS revenue exceeds operating expenses per census while MA does not. This chart demonstrates the impact of the previous one. When Medicare beneficiaries transition from traditional Medicare to MA, the HHA goes from making a comfortable profit to suffering a substantial loss for the services provided.

To calculate profit margin, we just need two values, revenue and expenses. We can calculate all-payer margins using total revenue and operating expenses and we can calculate the profit per census by financial class using these per census amounts. This is what these margins look like:



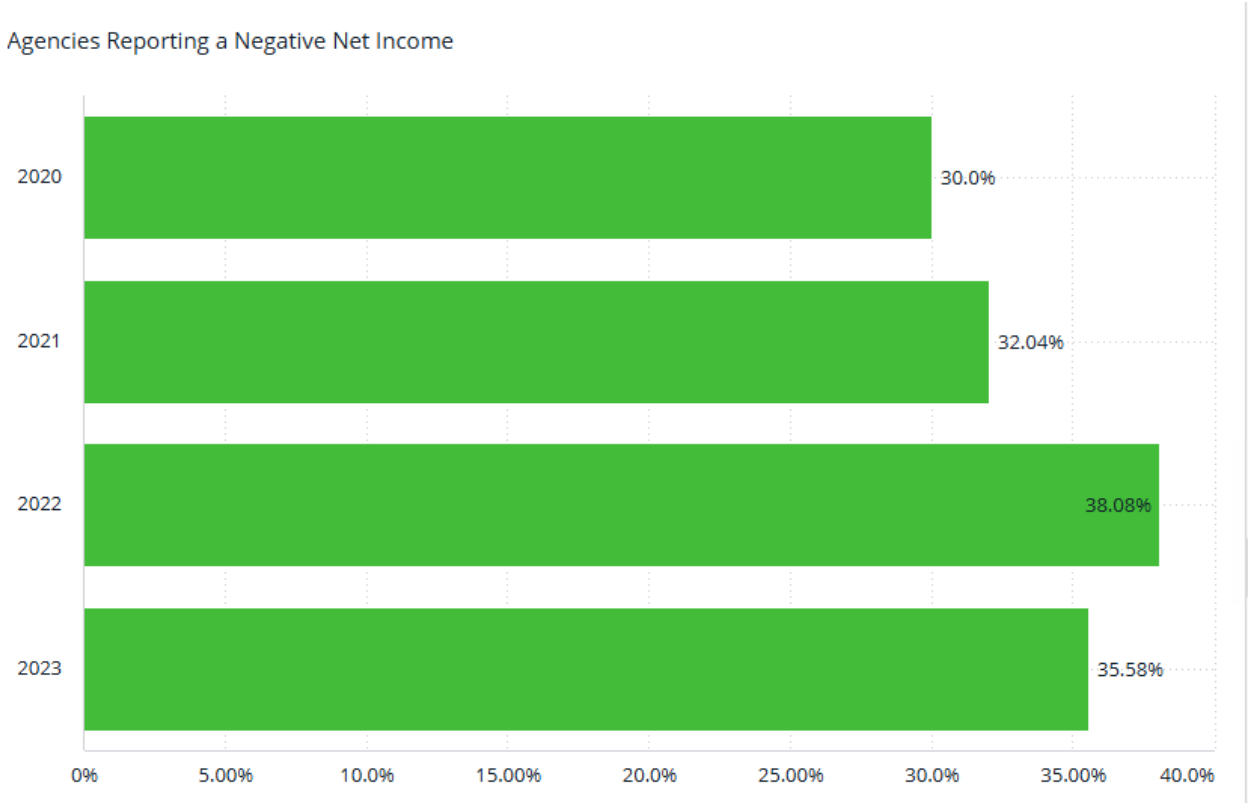
When we view this data by financial class and overall, we can see that the "excessive Medicare FFS margins" depicted by MedPAC in their view of the industry are offset by the substantial losses for HHAs under MA which MedPAC does not provide in their report.

Why would these rates be so different? Are different services provided? The cost reports can help answer that question as well. Here are the visits per census for Medicare FFS compared to MA.



A large part of the operating expenses of an HHA is the cost of these visits. That is why CMS uses these cost reports to develop case mix weights that influence FFS payments through the home health PDGM payment formula. We can see from the cost report data that there is no significant difference in overall visits per census between these two financial classes. This means that they have approximately the same services and the same costs.

We can look at a different metric from the cost report, what percentage of HHAs submitted cost reports with a negative net income? This value is not calculated from other values but simply submitted by the HHAs themselves as a data item on the cost report and we can count these HHAs reporting a loss as a percentage of all cost reports.



We see that at over a third of all agencies report a loss in 2023, does this reflect an industry "making too much money"? Which view of profitability does this performance indicator support MedPAC's or Project Sword?

So, the next question is if the home health services are the same and the costs are same for FFS and MA, why are the payment rates so different? Here is an oversimplified, but basically accurate explanation.

The MA business model works by having MA plans contract with CMS to provide the same coverage to Medicare beneficiaries that are provided under FFS Medicare. They must do this with the same money spent by Medicare in the same county where their MA beneficiary is enrolled, but the MA plan gets to keep 20% of this premium as compensation for their administrative costs and profits. The remaining 80% of the money (maximum) is used to pay claims for the same provider services paid by Medicare FFS in the same county.

Medicare pays hospitals well below cost, this comes to a -12.6% margin in 2023 (MedPAC Table 3-11). However, hospital all-payer margins are positive for hospitals in 2023 at 5.1% (3-10). This is because in the hospital business model, commercial insurance pays so much better than Medicare that they subsidize the Medicare losses. This has been true for decades.

This means that MA plans spend much more on hospitals than Medicare FFS does and they do this with 80% of the total FFS funds. The reason why HHAs take such large losses on MA patients is because there is very little MA money left over after hospitals are paid.

In other words, the script is flipped between hospitals and HHAs. Commercial payments keep hospitals afloat; Medicare does not come close to covering expenses. For HHAs, the opposite is true. As the

industry has moved away from FFS to MA, it has brought relief to hospitals and endangered HHAs.

Whatever others may think, MA is not the villain in this story. Many of these health plans, including UnitedHealth, are reducing their MA footprint as the begin to realize that this inverted business model is unsustainable for them. They understand their rates for HHAs are too low, but do not have the money to increase them. They also understand that this post-acute safety net is collapsing. As a health plan, they try to manage their services and the interaction of providers. Like CMS, they would prefer that their beneficiaries are treated in the home, but they are discovering that these home health providers are closing their doors or reducing their service areas and are unavailable to many of their beneficiaries. This is increasing their overall costs in payments to providers when these patients seek help elsewhere. Unlike CMS, they understand the problem, and unlike CMS, they have no way to fix it.

Under MA, any concessions from MA health plans to increase the rates for one provider come at the expense of another provider, not the health plans themselves. The health plan financials are also available publicly on the Medical Loss Ratio website. They show that the plans pay out all they are required to pay to providers, but none give an inch on their 20%.

The only economic safety valve for the combined MA and FFS model for HHAs is the base rate paid by CMS through Medicare FFS. CMS is subsidized by MA plans for hospitals saving taxpayers billions in Medicare spending. If CMS does the same for HHAs, a much less expensive market, they can keep this essential healthcare sector viable and capable of sustaining the increasing demand being placed on it by referrals of a growing volume of patients with increasing acuity.

Margin Comparison – MedPAC vs Sword 2.0

To begin, let's look at the margins that MedPAC focuses on for their evaluation of the financial health of HHAs, the Medicare FFS profit margin. In table 7-11, MedPAC provides these margins that they calculate from the cost reports.

TABLE 7–11 FFS Medicare margins for freestanding home health agencies, 2019–2023

	2019	2020	2021	2022	2023	Share of home health agencies, 2023	Share of periods, 2023
All	15.4%	20.2%	24.9%	22.2%	20.2%	100%	100%
Geography							
Majority urban	16.1	20.0	24.8	22.3	20.2	86	87
Majority rural	14.2	21.6	25.2	22.0	20.1	14	13
Type of ownership							
For profit	17.4	22.7	26.1	23.6	21.5	93	87
Nonprofit	11.4	12.4	20.2	16.4	13.3	7	13
Volume quintile							
First (smallest)	9.7	11.6	14.0	13.7	12.6	20	3
Second	11.4	14.0	15.9	14.5	13.9	20	7
Third	13.3	17.0	19.3	17.0	15.0	20	11
Fourth	14.1	18.8	22.8	21.0	19.4	20	20
Fifth (largest)	17.5	22.4	28.3	24.8	22.4	20	60

Note: FFS (fee-for service). Home health agencies (HHAs) were classified as "majority urban" if they provided more than 50 percent of episodes to beneficiaries in urban counties, and they were classified as "majority rural" if they provided more than 50 percent of episodes to beneficiaries in rural counties. These data do not include federal provider relief funds that HHAs received due to the coronavirus pandemic. Percentage changes were calculated on unrounded data. Percentages may not sum to 100 due to rounding.

Source: MedPAC analysis of Medicare home health cost report files from CMS.

We can look at the Medicare FFS margins from Sword 2.0 and compare them to these MedPAC values for 2020 – 2023.

		2020	2021	2022	2023
19	MedPAC FFS Margins 7-11	20.20	24.90	22.20	20.20
20	Sword 2.0 FFS Margins	22.52	26.60	22.43	25.89
21	Difference	2.32	1.70	0.23	5.69
23	% Difference	11.49%	6.83%	1.04%	28.17%

You will notice that our results are different, Sword 2.0 is somewhat higher than MedPAC. I believe that for 2020 – 2022, both MedPAC's and Sword's numbers are correct. The reason why they are different is not in how the margins are calculated, but which cost reports are used to calculate them.

Not all cost reports include the data needed to calculate margins and some of them include data that is invalid. These invalid cost reports must be removed before you can come up with valid margins. The process to remove disqualified cost reports from the set of all cost reports is referred to as "trimming".

Cost reports can be disqualified for two reasons for margin calculations, they lack the data needed to calculate the margins, or the results of the margin calculation are classified as outliers and removed on that basis.

At the end of this report, I describe the process I used to select and eliminate cost reports through a statistical formula. MedPAC and CMS use a similar process, but they do not describe it or document how many cost reports they eliminate. In the data published with this project, I include the set of cost reports before and after trimming for 2023. This will allow anyone to apply a different trimming methodology and compare their results to Sword 2.0 using a spreadsheet.

I can demonstrate how this process can affect the results of these margins by comparing my Medicare FFS margins from Sword 1.0 last year to Sword 2.0 this year. Last year I used a "rules based" methodology to eliminate cost reports based on many different documented issues with the data. I used this list of problems to eliminate through code all the cost reports that failed to pass these criteria.

In Sword 2.0, I spent a significant amount of time improving this process. I understood that my original trimming logic was arbitrary and limited. I worked with a Sisense engineer with a background in statistics and I used AI to develop a superior statistical process of eliminating outliers. I verified this process and my data with CFOs of large HHA enterprise organizations and small ones using the data for their own HHAs in their own organizations. Here is a comparison of the margins for 2020 – 2022 for both versions of Sword:

		2020	2021	2022
25				
26				
27	Sword 1.0 FFS Margins	20.95	24.53	21.91
28	Sword 2.0 FFS Margins	22.52	26.60	22.43
29	Difference	1.57	2.07	0.52
30				
31	% Difference	7.49%	8.44%	2.37%

You may notice that the first version of my margins is closer to MedPACs than Sword 2.0. You will also notice that the margins are higher in Sword 2.0 than they were originally and higher than MedPACs. The reason is that my current methodology eliminated a small number of additional cost reports than I eliminated last year.

Cost report outliers are almost all reports with unreasonably low negative profit margins. Much of this is related to providers and cost report preparers reporting incorrect expenses that include other lines of business or even other HHAs that are rolled into these total expenses by a parent company. Some are just simply wrong.

When I built out my new statistical process for eliminating outliers, I tested and modified the range of the formula by making sure that after trimming, the worst performing HHAs had results that were plausible. This meant eliminating extra reports used in the first version of Sword.

I believe that MedPAC's trimming process produces a set of data closer to the first version of Sword than the current one, meaning that they also include a few more of the poor performance HHAs in their margin calculations than I do now.

Although this explains why we come up with slightly different numbers for 2020 – 2022, there are important differences between my calculations and MedPACs that can't be explained by differences in trimming. The first is that we come up with significantly different results for 2023.

	2020	2021	2022	2023
MedPAC FFS Margins 7-11	20.20	24.90	22.20	20.20
Sword 2.0 FFS Margins	22.52	26.60	22.43	25.89
Difference	2.32	1.70	0.23	5.69
% Difference	11.49%	6.83%	1.04%	28.17%

For 2023, I show an increase in the Medicare FFS margin, MedPAC shows a decline. This was unexpected by me, so I questioned my own results when I saw them initially and researched the issue. It turns out that although the number of 30-day periods has declined overall, as reported by MedPAC, the number of 30-day periods per patient census has increased. You can see this in the increased revenue and expenses per census in 2023 compared to prior years as well as an increase in the visits per census while visits per 30-day period has remained stable.

This happened to a certain extent industry wide as patients being referred to home health have increasing acuity due to payment model pressures from referring providers to discharge patients earlier and sicker. This is also a factor of the LA County "business model" which includes extending the billing periods per census significantly.

These results are so different from each other that both cannot be supported by the same data. Since I am confident in my own research, I tried to determine why MedPAC might be reporting this margin for 2023. I found a clue in their previous March report on payment recommendations in 2024. In that report, on page 219, they provide projected margins for 2024 based on their 2022 actual margins and their predicted impact of cuts by CMS. Based on this, they projected that FFS margins would continue to decline after 2022 and would be around 18% in 2024.

I believe that the current margin reported by MedPAC is more likely to be a similar estimate based on their predictions from 2022 data instead of being the product of actual cost report data from 2023 supporting this conclusion.

Another major problem is their reporting of all-payer margins for 2023. Unlike their chapters on hospitals, where all-payer margins drive their analysis of that healthcare sector and are charted each year in their reporting of its financial status, all-payer margins for HHAs seem to be an afterthought. MedPAC claims that the all-payer margin for HHAs in 2023 was 8.2%. There is no mention of all-payer margins that I could find in last year's report. I found a MedPAC deck showing data for 2021 that includes an all-payer margin of 8.1% for that year.

In Project Sword, both versions, my all-payer margins are much lower with an all-payer margin in 2023 of 1.32% in Sword 2.0. This calculation is simple. It uses total revenue and operating expenses from the cost reports. The bottom line is that there is no statistical method to "trim" the cost report data to get the MedPAC all-payer result. Recently, I have shared this with MedPAC personally and offered to show how my margins are calculated and compare my process with theirs so we could determine why these values

are so different, I am still waiting for a reply.

Finally, we need to look at MedPAC's calculation of Marginal Profit for HHAs, one of the measures used in their evaluation of all provider sectors. First, my position on this metric is that it is irrelevant and I find it curious that it is even included as a measure. Literally no one in healthcare uses this metric to measure the performance of their business or to make a business decision on admitting a patient as MedPAC describes. Shareholders, banks and private equity firms want to know the profit of a business overall, period.

In their current March 2025 report, MedPAC mentions marginal profits briefly. They claim that there are anomalies in the 2023 cost report data that prevented their calculation this year. I have found no difference in the data or the quality of the data in 2023 from previous years, but I will show you that the 2023 cost report data is not the problem, this MedPAC calculation was never correct for HHAs.

percentage points higher for community-admitted beneficiaries relative to posthospital beneficiaries, and the rate of anemia was 12.1 percentage points lower for community-admitted beneficiaries relative to posthospital beneficiaries.

Marginal profits

Another component of access is whether providers have a financial incentive to expand the number of FFS Medicare beneficiaries they serve. To assess this component, we examine the FFS Medicare marginal profit—the percentage of revenue from FFS Medicare that is left as profit after accounting for the allowable variable costs of providing services to FFS Medicare patients. (Variable costs are those that vary with the number of patients treated. By contrast, fixed costs are those that are the same in the short run regardless of the number of patients treated (e.g., rent).) If the FFS Medicare marginal profit is positive, a provider with excess capacity has a financial incentive to care for an additional FFS beneficiary; if the FFS Medicare marginal profit is negative, a provider may have a disincentive to care for an additional FFS beneficiary. (See the text box in Chapter 2 on the different margin measures MedPAC uses to assess provider profitability.) Due to anomalies related to cost allocation on the home health cost report, we were unable to compute the FFS

Medicare marginal profit for 2023. We note, however, that because the FFS Medicare marginal profit excludes fixed costs included in our other financial measures, the FFS Medicare marginal profit for HHAs would be higher than the FFS Medicare margin reported later in this chapter.

rates of 3.65 percent and 4.06 percent, respectively (Figure 7-1, second graph).

Most patient-experience measures remained stable

HHAs collect Home Health Care Consumer Assessment of Healthcare Providers and Systems (HH CAHPS)

If we go back to the MedPAC report from the previous year (March of 2024), we can find their calculation for marginal profit for HHAs for 2022. In last year's report, they provided a marginal profit for HHAs of 23%. Previous years have similar calculations.

Marginal profits

Another measure of access is whether providers have a financial incentive to expand the number of FFS Medicare beneficiaries they serve. In considering whether to treat a patient, a provider with excess capacity compares the marginal revenue it will receive (i.e., the Medicare payment) with its marginal costs—that is, the costs that vary with volume. If FFS Medicare payments are larger than the marginal costs of treating an additional beneficiary, a provider has a financial incentive to increase its volume of FFS Medicare patients. In contrast, if payments do not cover the marginal costs, the provider may have a disincentive to care for FFS Medicare beneficiaries.[6] In 2022, the average marginal FFS Medicare profit for freestanding HHAs was 23 percent, indicating that these HHAs have a strong incentive to serve FFS Medicare beneficiaries.

There are many problems with this paragraph. First is the concept that HHAs can choose if they admit Medicare FFS or MA patients and that they make this choice in part based on potential profit per admission. Based on the margins for both FFS and MA, no sane HHA would choose MA over FFS patients or refuse to admit FFS patients if they had a choice. Providers do not measure this "marginal profit" to determine an admission; they take what their referral sources send them. If they do not, they will lose these referral sources. This is because these acute care partners prefer MA. Both parties in this process accept both health plans and admit based on clinical factors, not financial ones. Admissions based on a patient's Medicare health plan are not a factor in determining admissions for any Medicare provider that interacts with other Medicare providers.

Now let's look at MedPAC's marginal profit data. Last year, MedPAC claimed that there was a marginal profit in 2022 of 23%. In the same March 2024 report, they provide a Medicare FFS profit margin of 22.2%.

As they stated in last year's report and this year's, the marginal profit excludes all fixed costs. In other words, the costs used for marginal profits are related to the revenue compared to the costs of the visits for an additional unit of service and not overall operating costs of the HHA. The overall Medicare margin includes both fixed and variable costs, marginal profit uses variable costs only.

There is very little difference in these two margins. This means that in the view of MedPAC, the fixed costs of HHAs must be very small. I lean on my AI ChatGPT client heavily to support and validate my research. If MedPAC did the same, they would have discovered this error. I believe that eventually they did, and this is why the marginal profit calculation for the current report is "broken".

I asked my AI companion what the fixed costs for an HHA would be if both MedPAC margins were accurate for 2022. For both margins to be accurate, fixed costs for HHAs would be 1.03% of all costs. The actual percentage of fixed costs compared to operating expenses is about half of all expenses for the average HHA. This comes from the cost reports and supporting online sources including accounting firms that prepare these cost reports.

Summary

Fixed costs as a percentage of all costs is approximately 1.03%.

This percentage indicates how much of the total costs are attributable to fixed costs in the context of the business scenario provided.

Access to Capital

MedPAC's data supporting their position on Access to Capital for home health diminishes each year. In the current report, there are no specific examples of organizations expanding their services or any other data supporting MedPAC's conclusion that "access to capital is adequate". There is no mention of their new foundational measure they added this year, "Investment Activity", this is because there isn't any in home health.

The only data point they provide to support this assumption is their all-payer margin of 8.2% that they say comes from the cost reports.

Providers' access to capital is adequate

HHAs are not as capital intensive as other providers because they do not require extensive physical infrastructure, and many are too small to attract interest from capital markets. Yet indicators suggest that HHAs have adequate access to capital. One measure the Commission assesses is the overall profitability of HHAs, which examines the profitability for all health care payers that HHAs serve (including FFS Medicare, Medicare Advantage, and other payers). In 2023, the all-payer margin for freestanding HHAs was 8.2 percent, indicating that many HHAs yield positive financial results that should appeal to capital markets. (See the text box in Chapter 2 on the different margin measures MedPAC uses to assess provider profitability.) Few HHAs access capital through publicly traded shares or through public debt such as issuance of bonds.

If this all-payer margin was correct, their assessment might be correct. With an 8.2% profit margin on average, investors and entrepreneurs might find the industry attractive for investment. New agencies might open, existing agencies might expand, and this market sector might be attractive and profitable, especially to HHAs that perform above this average.

We would see the supply of home health services increase to meet and exceed this demand as the price for home health services is fixed by CMS and not influenced by these market forces. Instead, every data point on home health utilization provided by MedPAC and Sword 2.0 shows a decline.

CMS publishes data annually on market saturation. This data measures the utilization of each sector of

healthcare by Medicare FFS beneficiaries over time. Each year they update this data. CMS provides this data nationally and at the state and county level. This chart shows the recent publication of this market saturation data from CMS that includes national data for 2024:

Market Saturation - National

Year	Level	State	County	Total HHAs	FFS Benes	HHA Benes	HHA User %
2019	NATION + TERRITORIES	--ALL--	--ALL--	8,838	36,068,480	3,049,973	8.46%
2020	NATION + TERRITORIES	--ALL--	--ALL--	8,466	37,965,823	2,827,352	7.45%
2021	NATION + TERRITORIES	--ALL--	--ALL--	8,412	39,119,873	2,986,057	7.63%
2022	NATION + TERRITORIES	--ALL--	--ALL--	8,320	38,591,290	2,795,506	7.24%
2023	NATION + TERRITORIES	--ALL--	--ALL--	8,282	38,190,214	2,677,455	7.01%
2024	NATION + TERRITORIES	--ALL--	--ALL--	8,190	38,660,593	2,403,481	6.22%

What this chart tells us first is that over this time, the number of FFS beneficiaries have remained constant. This is true, but the overall growth of Medicare beneficiaries has grown substantially when you include MA. The “FFS Benes” count in the middle of this chart is the net result of more patients entering Medicare than leaving it, increasing this count, and the transition of beneficiaries from FFS to MA that reduces it.

Every other metric in this chart shows a sharp decline in the use of home health services by Medicare FFS beneficiaries. Anyone looking at this would ask themselves why? Is home health a less popular healthcare delivery model than it was? Are the prices too high?

Anyone with a basic understanding of the business knows that home health is the focus of the Medicare program’s efforts to reduce overall spending. It is recognized by CMS and industry experts as the most cost-effective method of delivering healthcare. Hospitals, SNF and ambulatory surgical centers discharge a significant portion of their patients into home health. Their payment models encourage them to do so. I think it is safe to say that as the volume of overall Medicare beneficiaries increases, the flow of these patients to care in the home will increase at a rate equal to or exceeding this increase.

As far as pricing, the price is determined by the buyer, CMS. This is true either directly through Medicare FFS or indirectly through MA. There is no financial adjustment to this business model for home health unless CMS makes this adjustment through the base rate for FFS payments.

For home health, CMS must act as the federal reserve acts with interest rates. Through the base rate, they must balance efforts to reduce spending on Medicare and maintain access to this sector for their beneficiaries. If the base rate is too low, the supply of HHAs willing or able to provide these services will decline. Medicare beneficiaries who might have benefited from home health services will choose other more expensive options or receive no care and develop more serious and expensive clinical conditions.

If you were looking at this market data presented in this report and you were in control of the HHA base rate for CMS, what would be your recommendation? What would you conclude about Access to Capital for HHAs based on this data? What do you conclude based on your actual experience?

This is not intended to be a description of advocacy for a specific action to be taken on the base rate. It is an economic description of how the home health business model works. The CMS base rate for PDGM payments on home health claims is the only tool available for CMS to balance the interest of the taxpayer against those of the Medicare beneficiary. Unlike other sectors of healthcare, 97% of the home health business is paid through Medicare and MA. If there is an economic problem with reimbursement for either or both combined, CMS is the only entity able to fix it.

Data Analysis and Validation

The development of the cost report data was most of the work required to create the Sword project and Sword 2.0. I have been working with this home health cost report data since 2021 and the Sisense business intelligence tool and claim data since 2019. The primary focus of this project is all-payer profit margins for HHAs. Fortunately, this limits the cost report data we need to use and validate.

In the first version of Sword, I provided all the cost report data from 2020 – 2022 on my website and challenged anyone to confirm or refute my findings using this data or their own HCRIS download and processing of the cost reports. I was not contacted by anyone, including MedPAC or CMS, willing to accept this challenge.

To be honest, I don't expect anyone to do it this time either, but I am still going to include the 2023 data as two spreadsheets. One with all cost reports and one with the ones I used after my trimming. This data was constructed from the HCRIS data downloaded from the most current version of the data at the writing of this report, the 1st quarter data from 2025 published by HCRIS on 4/17/25. Anyone can validate the 2023 data using these spreadsheets with my trimming methodology or their own.

As I mentioned earlier in the report, I spent much more of my time this year than last validating this data and improving the trimming process. I was assisted by HHA financial managers who I consider to be the most qualified experts regarding this data. These are the HHA CFOs that submitted and signed these reports.

This year, this included the VP of Finance for Amedisys, Alexander McDermott, who validated their cost report data for 2023 that I provided as a spreadsheet against their submitted cost reports for that year. He also reviewed my methodology and margin calculations through the charts that I created for their organization collectively by filtering the charts provided in this report to view only their own operations for their HHAs alone.

As with the first version of Sword, no mistakes or inconsistencies were uncovered between the content of Sword 2.0 and what was submitted by these HHAs to CMS through the cost reports. I would welcome and appreciate it if anyone else were to try to validate or refute this data and I will work with you to make this happen if you contact me. This offer applies only to MedPAC, CMS, or the CFOs of HHAs and not to any vendor or advocacy organizations who are not in direct possession of these reports or have only a limited understanding of them. Even though this is publicly available data, I have tried not to disclose the identity of HHAs associated with the financial information submitted by these HHAs through this platform and I will not allow others to use it to "phish" for this data through this validation process and my research.

In Sword 2.0, I applied some simple rules to eliminate cost reports with invalid data:

- If a cost report has revenue for a financial class, it must also have census and visits
- Revenue and operating expenses must be greater than 0
- Z-Score must be between -0.1 and +0.1

The CMS process for collecting and validating this cost report data is riddled with problems. Cost report preparers and providers themselves also are responsible for these problems. The raw data includes many records that need to be eliminated because they do not include the data necessary to calculate profit margins or they are outliers. This data source needs to improve.

When all these rules are applied, the count of valid cost reports for 2023 goes from 10,697 to 5,404. Similar results occur with the prior years, 2020 through 2022. Both CMS and MedPAC use some similar processes to remove outliers, but their process, results and the values they use are not documented in their reports to congress, their websites, or the proposed rules.

Conclusions

Last year, I was relatively restrained regarding my recommendations to try to convey professionalism in Sword 1.0. As I have spent another year on this project and examined what the cost report data shows for home health more clearly, I have become angrier with the role that MedPAC has played in the decline of home health. Their efforts are lazy, misguided and inaccurate. Although I can't speak about their efforts in other sectors of healthcare, based on this experience, I would assume that they might have similar issues. MedPAC's unprofessional and amateurish approach to home health analysis is unforgivable given their mission to inform congress. Their undeserved credibility with congress and CMS has undermined the efforts of HHAs to share the real truth to congress regarding their financial health.

Their open disdain for home health is palpable not only through their March reports on base payment recommendations, but through their comment letters to CMS about the home health industry. I have found their efforts to check and validate their work to be somewhere between inadequate and non-existent. I am leaning more toward the latter as time goes by.

MedPAC's cavalier attitude toward their work and their effort to truly evaluate home care viability for Medicare beneficiaries has put home health in danger. It has provided cover for CMS to implement their cuts to the base rate. These cuts are driving the home health industry in a downward spiral toward a collapse that will ultimately effect overall Medicare spending and the health of older Americans. Neither MedPAC nor CMS seems to be capable of taking this problem seriously or even seeing that it exists.

In the coming days, I will accelerate my efforts to disclose the lack of competency by MedPAC through my view of this cost report data and margin analysis as well as my more recent research on Medicare fraud that is also readily apparent in this data. By the time the current CMS rule is finalized for home health, both CMS and MedPAC will be aware of these efforts and so will everyone else that I am able to communicate with on this subject.

This project has become my mission. I have had a history of success when it comes to achieving my goals, I don't accept failure until it happens despite my best effort. You will see that effort for the rest of 2025.