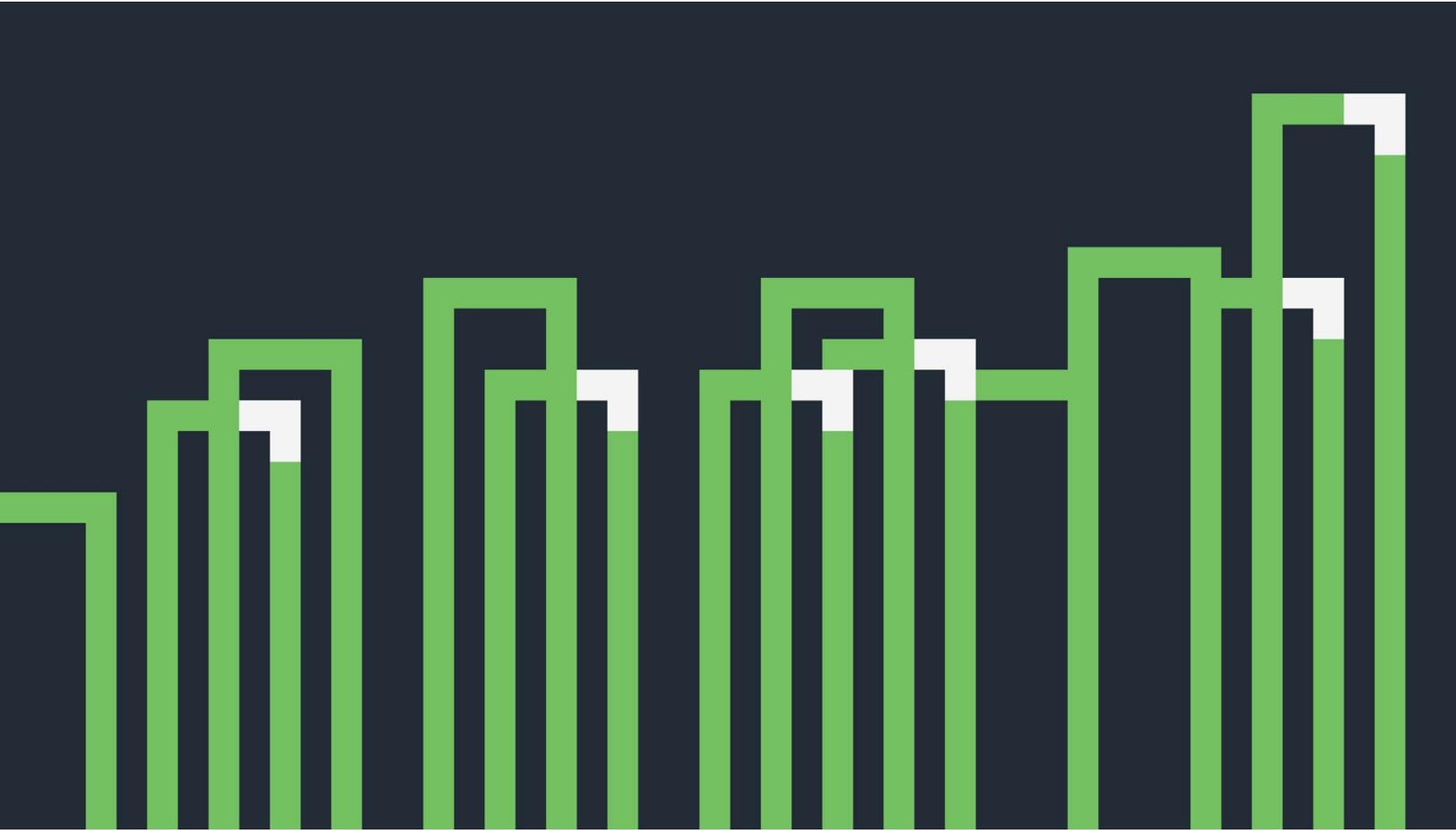


MILLIMAN RESEARCH REPORT

# Medicare Shared Savings Program: ACO financial results for 2021

December 2022

Matthew Smith, FSA, MAAA  
Brent Jensen, FSA, MAAA  
Jacob Anderson



# Table of Contents

<b>INTRODUCTION.....</b>	<b>1</b>
SPECIAL CONSIDERATIONS BY YEAR .....	1
ADDITIONAL INFORMATION.....	2
<b>THE MSSP ACO MARKET .....</b>	<b>3</b>
FIGURE 1: ACO PARTICIPANTS BY YEAR .....	3
FIGURE 2: TRACK 1 ACO PARTICIPANTS BY YEAR .....	4
FIGURE 3: UPSIDE-ONLY ACO PARTICIPANTS BY YEAR .....	5
FIGURE 4: ACO PARTICIPANTS WITH UPSIDE AND DOWNSIDE RISK BY YEAR.....	6
FIGURE 5: MSSP TRACK DETAIL .....	7
FIGURE 6: ANNUAL DISTRIBUTION OF ACOS BY TRACK.....	7
FIGURE 7: DISTRIBUTION OF ACOS BY 2021 BENEFICIARY LEVELS .....	8
FIGURE 8: TOTAL ASSIGNED BENEFICIARIES BY YEAR.....	8
FIGURE 9: DISTRIBUTION OF ACOS BY 2021 PROVIDER LEVELS.....	9
<b>GROSS SAVINGS RATES .....</b>	<b>9</b>
FIGURE 10: 2021 GROSS SAVINGS RATE DISTRIBUTION .....	10
FIGURE 11: 2018 GROSS SAVINGS RATE DISTRIBUTION .....	10
FIGURE 13: AVERAGE GROSS SAVINGS RATE DISTRIBUTION BY YEAR .....	11
<b>OBSERVATIONS ON GROSS SAVINGS RATES .....</b>	<b>12</b>
FIGURE 14: GROSS SAVINGS RATE DISTRIBUTION BY MSSP RISK LEVEL.....	12
FIGURE 15: GROSS SAVINGS RATE DISTRIBUTION BY BENEFICIARY COUNT PERCENTILE .....	13
FIGURE 16: GROSS SAVINGS RATE DISTRIBUTION BY PROVIDER COUNT PERCENTILE.....	14
FIGURE 17: GROSS SAVINGS RATE DISTRIBUTION BY BENCHMARK PERCENTILE .....	14
FIGURE 18: GROSS SAVINGS RATE DISTRIBUTION BY RISK SCORE PERCENTILE .....	15
FIGURE 19: GROSS SAVINGS RATE DISTRIBUTION BY LOW VS. HIGH REVENUE .....	16
FIGURE 20: GROSS SAVINGS RATE DISTRIBUTION BY INITIAL START DATE .....	17
FIGURE 21: GROSS SAVINGS RATE DISTRIBUTION BY QUALITY SCORE RANGE.....	18
<b>LIMITATIONS AND DATA RELIANCE .....</b>	<b>19</b>
<b>QUALIFICATIONS.....</b>	<b>19</b>

## Introduction

The primary purpose of this report is to provide timely and relevant insights about the state of the Medicare Shared Savings Program (MSSP) accountable care organization (ACO) market.

Over the last decade, ACOs have emerged as a major force in the way healthcare is delivered in this country. The ACO model, comprised of doctors, hospitals, and other healthcare providers, aims to provide a structure for better coordinated, more efficient care and, by doing so, reduce overall healthcare expenditures.

Although various forms of “accountable care” have existed for decades, the Centers for Medicare and Medicaid Services (CMS) has been a significant force in driving the development of the modern ACO structure and the promulgation of this payment arrangement nationwide. Today, Medicare fee-for-service (FFS) ACOs exist in every state, representing a wide variety of provider arrangements. As of January 2022, there were 483 MSSP ACOs operating in all 50 states and the District of Columbia, serving approximately 11 million Medicare beneficiaries;<sup>1</sup> additional beneficiaries are aligned with non-MSSP ACO-related organizations such as Next Generation ACOs.

## Out of the 60 million total Medicare beneficiaries, about 18% of beneficiaries are attributed to an ACO<sup>2</sup>

Given that MSSPs represent such a large portion of the Medicare FFS landscape and that participation continues to grow, it is worthwhile to identify trends and patterns by looking at how ACOs have performed and evolved over time. These patterns and trends can help ACOs better understand what MSSP features may be associated with financial success. It is just as important to see what factors are not correlated with success or failure in the program.

In order to provide insights on these drivers, this report analyzes and summarizes the calendar year (CY) 2021 experience for ACOs under MSSP as reported by the 2021 Shared Savings Program (SSP) ACO Public Use Files (PUFs), published by CMS.<sup>3</sup> This report also references previous PUFs, from 2015 to 2020, highlighting key MSSP trends and patterns in shared savings/loss rates, participation, and other key metrics.

### SPECIAL CONSIDERATIONS BY YEAR

We saw an unusual year with 2021, given that no new ACOs were allowed to enroll in 2021, and that ACOs were protected from downside loss due to continued public health emergency (PHE) provisions. This pattern has continued from prior years, which also had special circumstances:

- 2020 was unusual due to the COVID-19 pandemic, and ACO financial results may have been materially impacted by the pandemic as well as CMS’s modifications to MSSP rules and regulations.<sup>4</sup>
- 2019 featured midyear track changes and new ACO entrants, as opposed to most other years, when track changes and new entrants were as of January 1.

Due to the potential for skewed results for 2020 and 2019, as well as to highlight potentially longer-term observations, the more detailed exhibits we present will compare 2021 with 2018. We discuss this in further detail later in the paper.

---

<sup>1</sup> Centers for Medicare and Medicaid Services (January 2022). Shared Savings Program Fast Facts. Retrieved December 15, 2022 from <https://www.cms.gov/files/document/2022-shared-savings-program-fast-facts.pdf>.

<sup>2</sup> Kaiser Family Foundation. Medicare Advantage in 2022: Enrollment Update and Key Trends. Retrieved December 15, 2022, from <https://www.kff.org/medicare/issue-brief/medicare-advantage-in-2022-enrollment-update-and-key-trends/>.

<sup>3</sup> Centers for Medicare and Medicaid Services (August 2022). Performance Year Financial and Quality Results. Retrieved August 31, 2022, from <https://data.cms.gov/medicare-shared-savings-program/performance-year-financial-and-quality-results>.

<sup>4</sup> Centers for Medicare and Medicaid Services (November 4, 2020). Medicare Shared Savings Program: CMS Flexibilities to Fight COVID-19. Retrieved December 15, 2022, from <https://www.cms.gov/files/document/covid-ifc-2-medicare-shared-savings-program.pdf>.

## ADDITIONAL INFORMATION

The primary financial metric analyzed for this report is the gross savings rate. The gross savings (or losses) represent the total dollars saved (or lost) against CMS's benchmarks. This is distinct from the net savings that represent the portion of the gross savings shared with the ACOs, which depends on the tier, quality rating, and other factors. In this paper we will use "gross savings" and "savings" interchangeably; net savings will be explicitly referred to as such where relevant.<sup>5</sup> Results are summarized on a composite basis for all ACOs except where otherwise noted.

Additional selected metrics focus primarily on values that underlie or correlate with the savings rates. The methodology and formulas behind these metrics are documented by CMS.<sup>6</sup>

Some ACOs may be excluded from the PUF data, and therefore from our analysis for the following reasons:

- The ACO participated in a non-MSSP Medicare model, such as Next Generation, Pioneer, or Direct Contracting.
- The ACO did not participate in any Medicare model (such as a commercial-only ACO).
- The ACO was new to MSSP in 2022, or terminated before 2015.

The PUF data as well as our analysis excludes all non-Medicare results for ACOs that participate in multiple lines of business such as commercial or Medicaid.

We also have additional ACO-specific information that can be provided upon request. This data includes a list of each MSSP ACO in the PUFs between 2015 and 2020, along with their CMS-provided ID, their state(s), initial start date, risk track for each year from 2015 through 2020, as well as performance data including 2021 beneficiary count, provider count, quality score, average population risk score, benchmark, and savings rate.

---

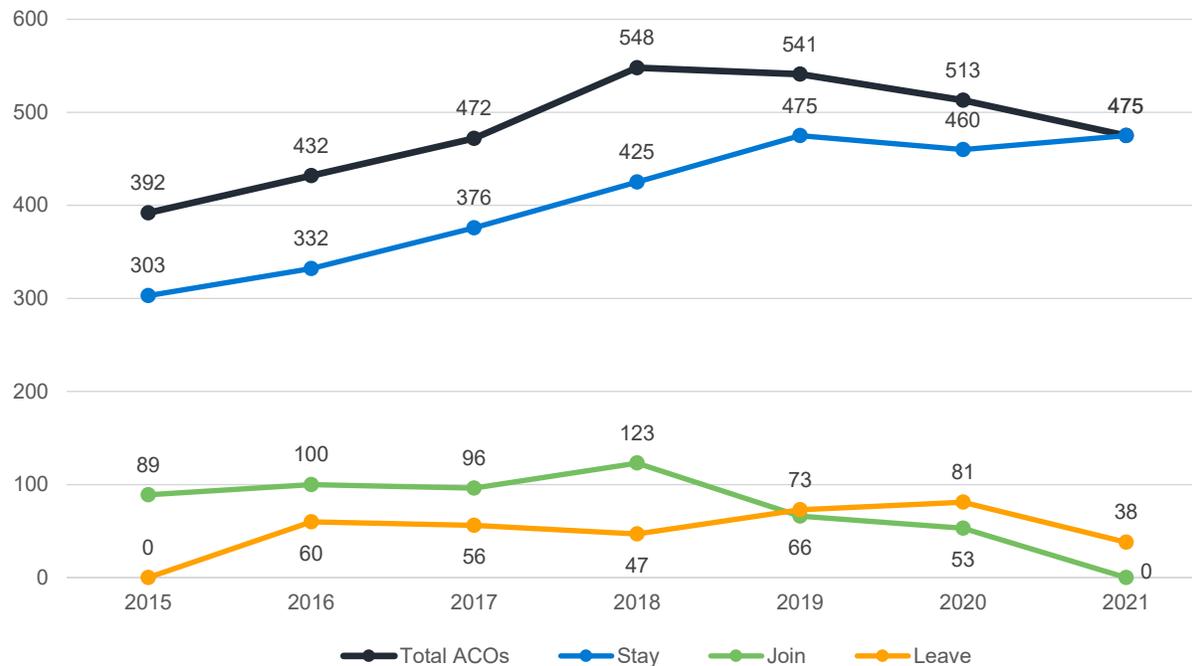
<sup>5</sup> From the PUFs we use as gross savings the variable "sav\_rate," which CMS defines as "Total Benchmark Expenditures Minus Assigned Beneficiary Expenditures as a percent of Total Benchmark Expenditures."

<sup>6</sup> Centers for Medicare and Medicaid Services (August 2020). Medicare Shared Savings Program: Shared Savings and Losses and Assignment Methodology, Specifications, Applicable to Performance Years Starting on July 1, 2019. Retrieved December 15, 2022, from <https://www.cms.gov/files/document/shared-savings-losses-assignment-spec-v8.pdf-0>. Note that CMS has published updated guidance effective 2022..

## The MSSP ACO market

In most years, some number of ACOs join and leave the MSSP market. However, in 2021, CMS paused the ability for ACOs to renew (or begin) their participation agreement, and thus have 2020 act as benchmark year (BY) 3, allowing ACOs with expiring agreements the option to participate under their historical benchmarks for an additional performance year. Figure 1 shows the total number of ACOs in the market in each year from 2015 through 2021, as well as the total number of ACOs who joined, stayed, or left MSSP. We also show summaries for Track 1 (upside only) and all non-Track 1 (upside and downside risk) ACOs.

**FIGURE 1: ACO PARTICIPANTS BY YEAR**



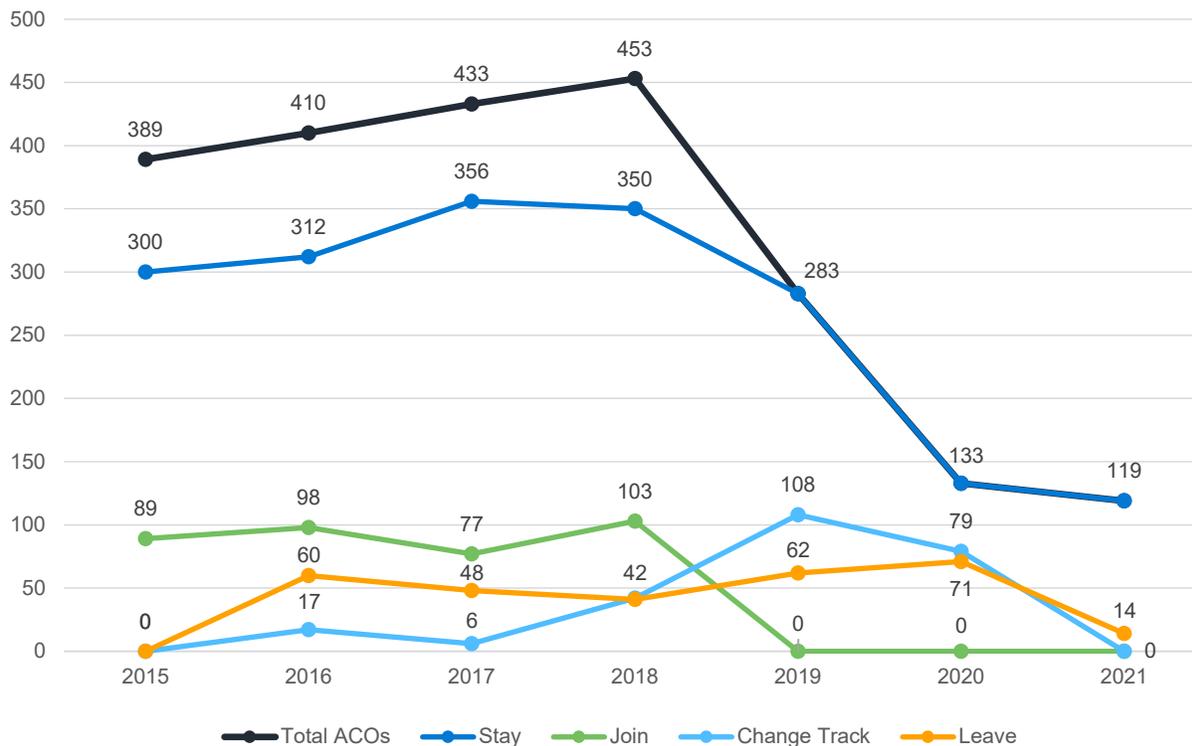
We can also examine the movement in ACOs based on risk track. Through 2019, the majority of all MSSP ACOs were participating in a Track 1 (upside only) model.

However, from 2019 onward, MSSP has seen a rapid shift away from the Track 1 model. This is due to two factors:

1. The original MSSP rules stated that ACOs could only remain in Track 1 for six years, meaning that the oldest ACOs are now required to leave Track 1.
2. The Pathways to Success program required that all new or renewing ACOs had to apply for a Basic or Enhanced track starting in 2019; as ACO contracts were set for three years before the introduction of Pathways to Success, renewing ACOs had to depart Track 1 in 2019, 2020, and 2021.

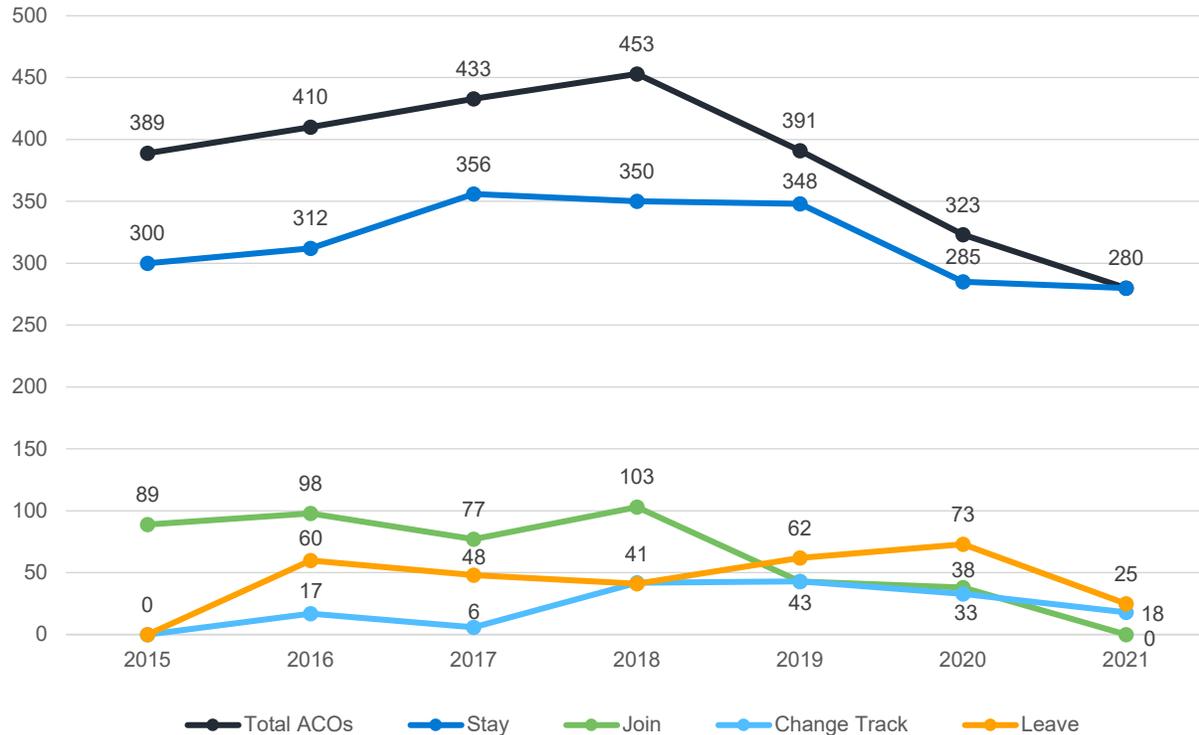
We track these shifts in Figure 2, which shows the same chart as Figure 1, but only for Track 1 ACOs. Completing the picture of stay/join/leave is a new line charting the number of Track 1 ACOs that changed tracks. Note that for 2019 to 2021, the “Stay” and “Total ACOs” lines overlap, because there were no new Track 1 ACOs in 2020 or 2021. Starting in 2020, the introduction of the Pathways to Success tracks prevented any new ACOs from joining Track 1 and, in 2021, CMS restricted any new ACOs from joining the program at all.

**FIGURE 2: TRACK 1 ACO PARTICIPANTS BY YEAR**



In addition to Track 1, two of the new Pathways to Success tracks, Basic A and Basic B, are also upside only. We can therefore follow the rate of upside only ACOs, inclusive of these two new tracks. Figure 3 shows these trends. Even including Basic A and Basic B, the number of ACOs in upside-only tracks has been substantially declining, though the two figures combined demonstrate that many ACOs have transitioned from Track 1 to either Basic A or Basic B.

FIGURE 3: UPSIDE-ONLY ACO PARTICIPANTS BY YEAR



While there has been an overall decrease in the number of ACOs participating in MSSP between 2018 and 2021, most of this decrease in participation has been driven by ACOs in upside-only risk tracks (Track 1) leaving the program, possibly to avoid taking on downside risk under the Pathways to Success model.

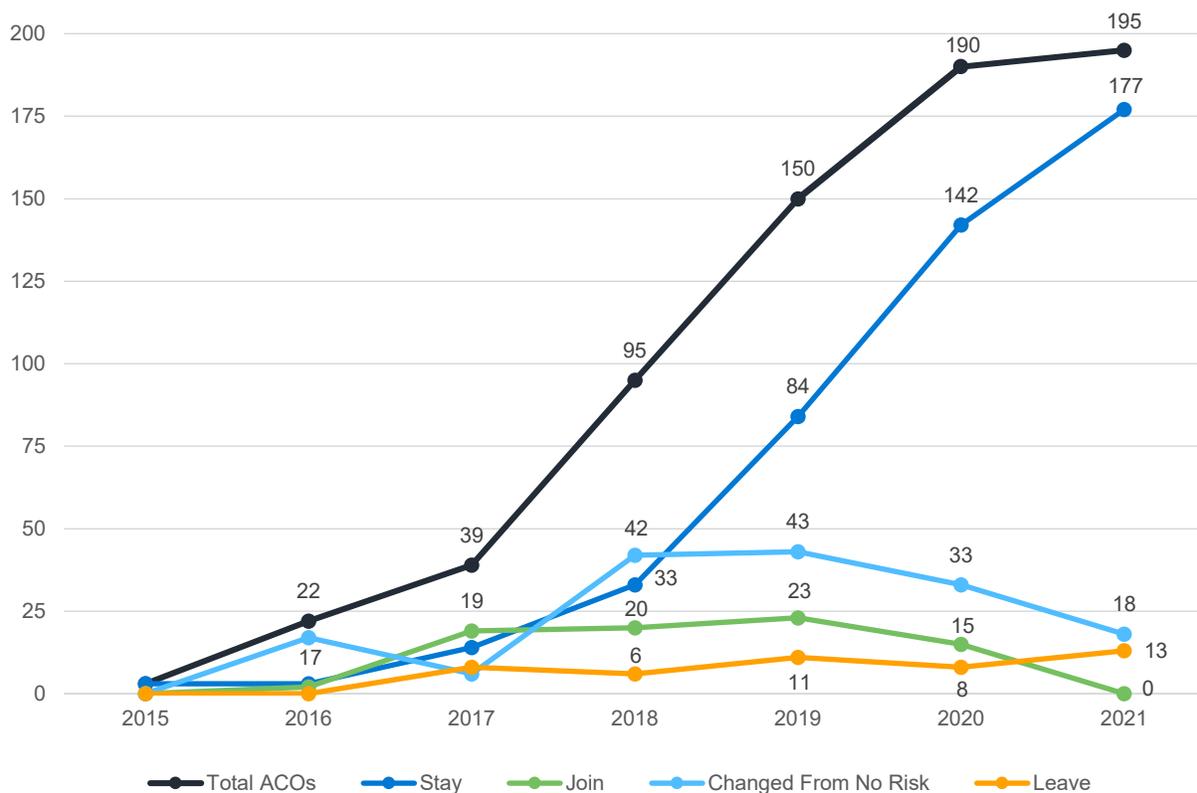
The number of ACOs that are already participating in some form of downside risk (see Figure 4) has been growing steadily over time (with minimal withdrawals) and has grown significantly since the introduction of the Pathways to Success model, where ACOs are transitioned over time to taking on downside risk.

We can also observe that the rate of ACOs with two-sided risk leaving the program has steadily declined; the total number of leavers has been relatively flat year to year from 2017 to 2020, even as the total number of participants has rapidly increased. The inverse pattern can be observed in the upside-only tracks; from 2018 to 2020, the number of leavers increased, even as the total number of remaining ACOs in upside-only tracks has shrunk. However, 2021 reversed this trend to some degree, with fewer upside-only ACOs departing the program and more two-sided risk ACOs departing. We will observe this trend in 2022 and future years to see if it continues.

As part of the 2023 Medicare Physician Fee Schedule, CMS has introduced some changes to the risk tracks, including an opportunity for some ACOs to remain in upside-only risk models for the remainder of their agreement periods and making the Enhanced risk track purely optional. These changes are designed to slow the transition to downside risk for currently participating ACOs and potentially open the door for more MSSP participation from ACOs that are apprehensive about downside risk.<sup>7</sup>

<sup>7</sup> Champagne, N., Gusland, C., & Smith, C. (December 2, 2022). A Summary of the Impactful MSSP Rule Changes in the 2023 Medicare Physician Fee Schedule Update. Milliman Insight. Retrieved December 15, 2022, from <https://www.milliman.com/en/insight/impactful-mssp-rule-changes-2023-mpfs>.

**FIGURE 4: ACO PARTICIPANTS WITH UPSIDE AND DOWNSIDE RISK BY YEAR**



As noted above, we can distinguish ACOs based on the level of downside risk taken. In addition to breaking out upside-only ACOs, we have organized them separately based on the level of downside risk taken, as follows:

- **No risk:** No shared losses or downside risk (i.e., upside only).
- **Low risk:** Maximum shared losses at or below 10% of benchmark.
- **High risk:** Maximum shared losses above 10% of benchmark.

We provide additional detail in Figure 5.<sup>8</sup>

<sup>8</sup> Pre-Pathways to Success values obtained from: Centers for Medicare and Medicaid Services (July 2017). Fact Sheet: New Accountable Care Organization Model Opportunity: Medicare ACO Track 1+ Model. Retrieved December 15, 2022, from <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/sharesavingsprogram/Downloads/New-Accountable-Care-Organization-Model-Opportunity-Fact-Sheet.pdf>. Basic and Enhanced values obtained from: Centers for Medicare and Medicaid Services (May 2022). Basic and Enhanced values from CMS Shared Savings Program Participation Options for Performance Year R2023. Retrieved December 15, 2022, from <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/sharesavingsprogram/Downloads/ssp-aco-participation-options.pdf>.

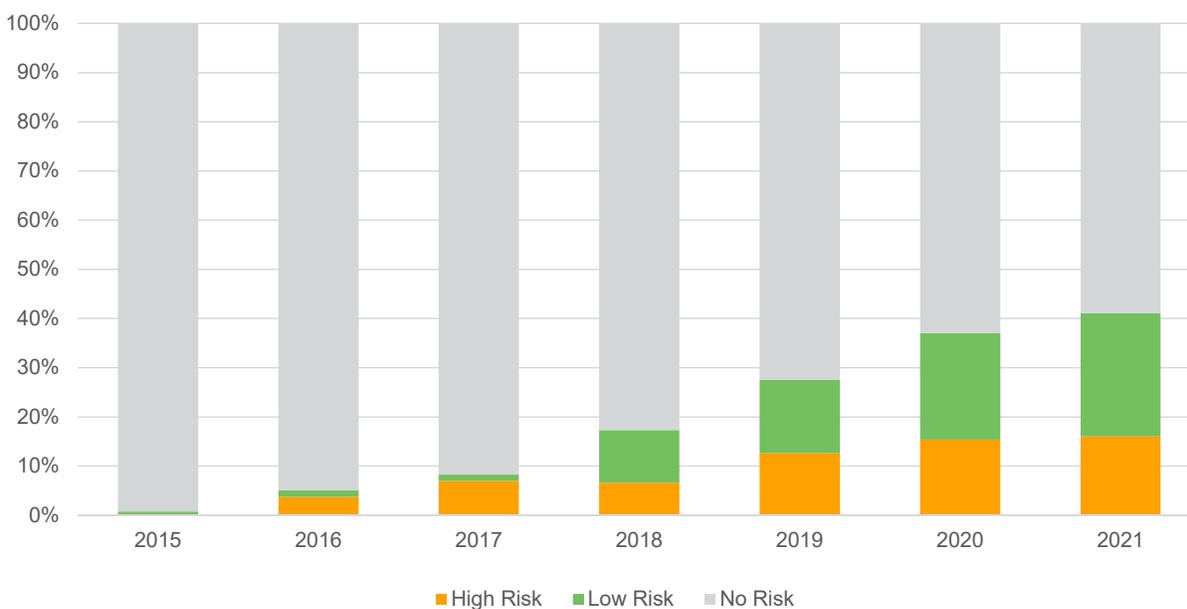
**FIGURE 5: MSSP TRACK DETAIL**

	PRE-PATHWAYS TO SUCCESS				BASIC TRACK				ENHANCED TRACK
	Track 1	Track 1+	Track 2	Track 3	Level A/B	Level C	Level D	Level E	
<b>Risk Level</b>	No Risk	Low Risk	Low Risk	High Risk	None	Low Risk	Low Risk	Low Risk	High Risk
<b>Available to New Entrants</b>	No	No	No	No	Yes	Yes	Yes	Yes	Yes
<b>Max Shared Savings Rate</b>	50%	50%	60%	75%	40%	50%	50%	50%	75%
<b>Max Savings as % of Benchmark</b>	10%	10%	15%	20%	10%	10%	10%	10%	20%
<b>Max Shared Losses Rate</b>	n/a	30%	60%	75%	n/a	30%	30%	30%	75%
<b>Max Losses as % of Benchmark</b>	n/a	4%	5-10%	15%	n/a	1%	2%	4%	15%

Using these categories, we can also observe the changing distribution between MSSP risk levels through 2021.

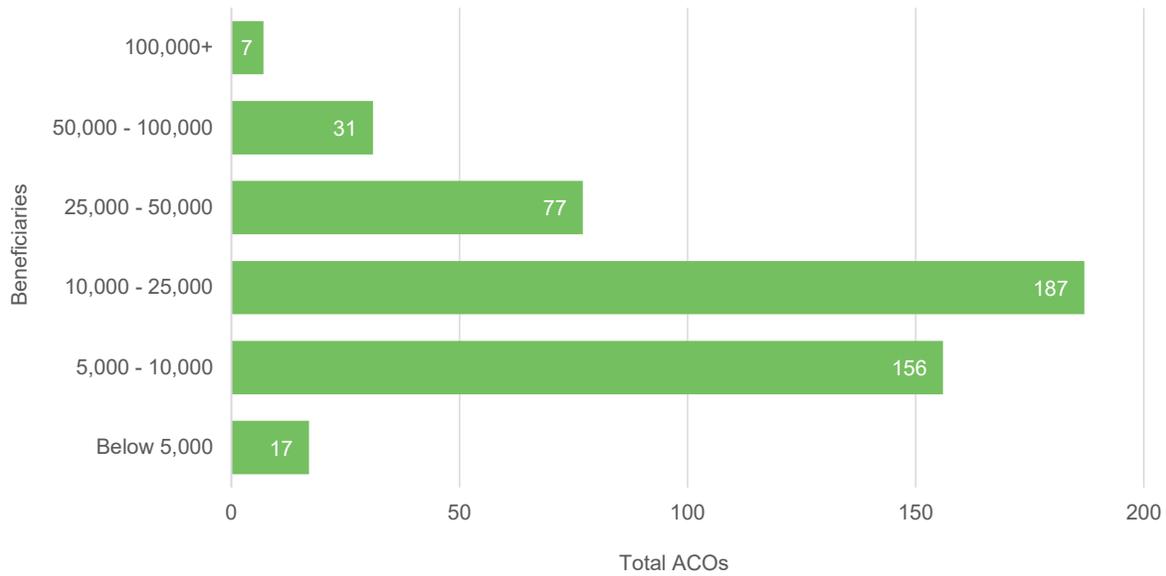
As with Figures 3 and 4 above, we observe an expansion of risk-taking ACOs over time, either as a result of program requirements to move toward taking downside risk or ACOs being more inclined to take downside risk with greater upside potential. We also note that there has been substantial growth in the low-risk track MSSPs and high-risk track MSSPs beginning in 2018 and 2016, respectively.

**FIGURE 6: ANNUAL DISTRIBUTION OF ACOS BY TRACK**

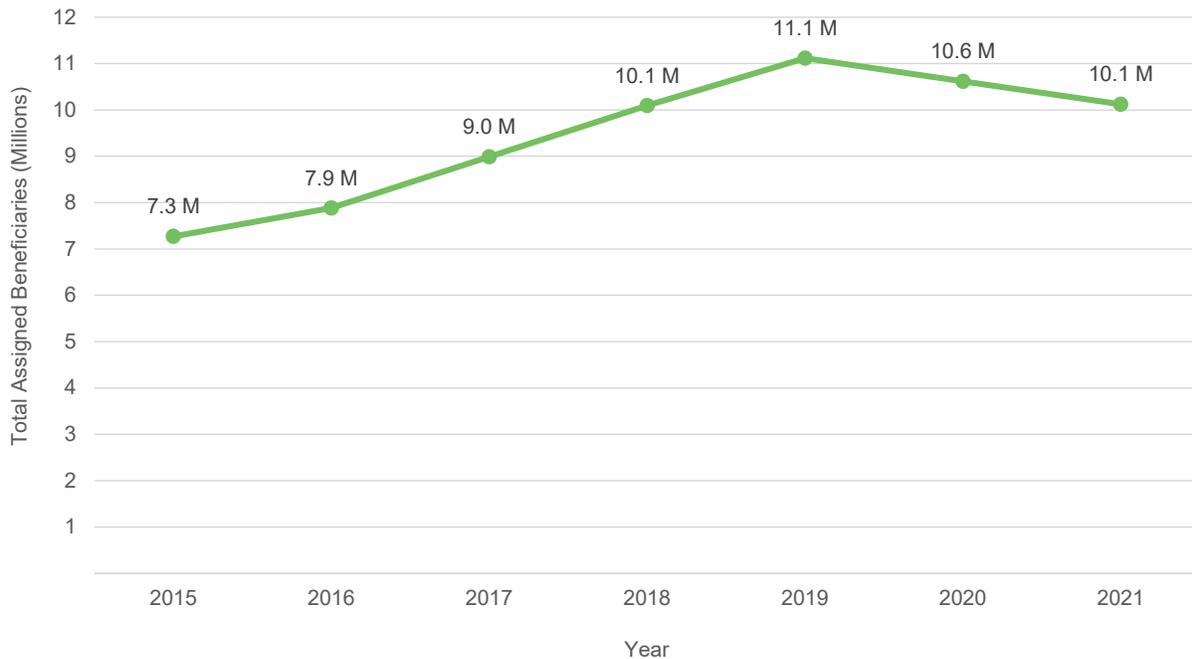


In addition to distribution across risk tracks, ACOs can vary substantially in terms of numbers of beneficiaries served, with most ACOs having between 5,000 and 25,000 beneficiaries in 2021. Overall, the number of beneficiaries attributed to an ACO increased from 2015 to 2019 but has decreased in 2020 and 2021. Figure 7 shows the number of ACOs by 2021 beneficiary levels. Figure 8 shows the total assigned beneficiaries by year.

**FIGURE 7: DISTRIBUTION OF ACOS BY 2021 BENEFICIARY LEVELS**

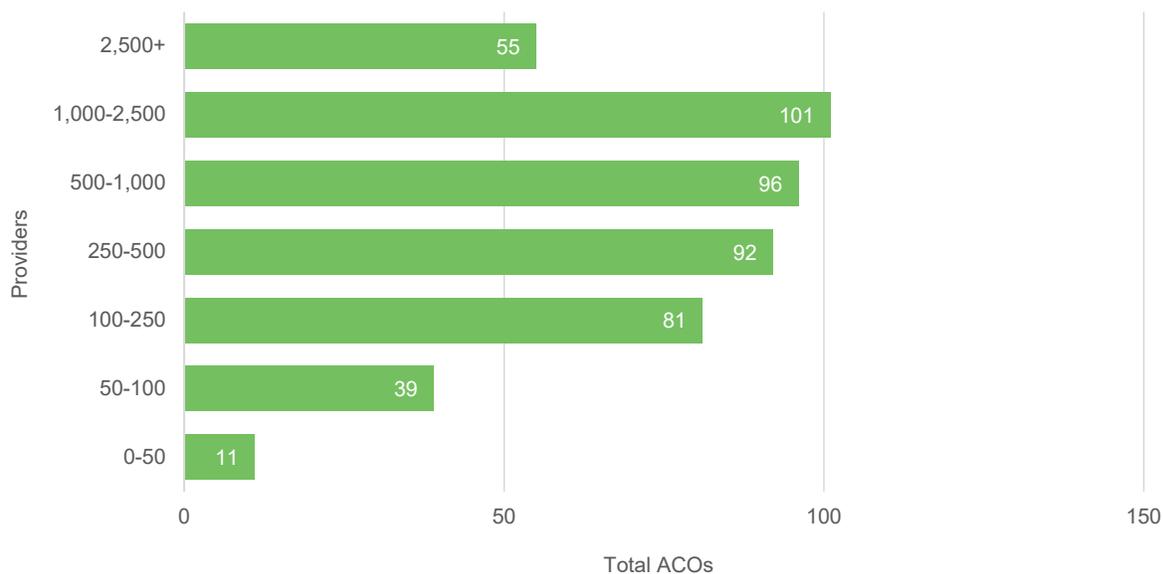


**FIGURE 8: TOTAL ASSIGNED BENEFICIARIES BY YEAR**



Another way to examine the distribution of ACOs by size is provider count, based on the number of National Provider Identifiers (NPIs) contracted with an ACO, as shown in Figure 9.<sup>9</sup>

<sup>9</sup> The count of providers defined in the PUFs is “based on the ACO’s certified participant list used in financial reconciliation and information in the Medicare Provider Enrollment, Chain, and Ownership System (PECOS).” This count of providers is on a per-NPI basis.

**FIGURE 9: DISTRIBUTION OF ACOS BY 2021 PROVIDER LEVELS**

## Gross savings rates

### GROSS AND NET SAVINGS

For each ACO, CMS compares a per beneficiary per year benchmark against the actual per beneficiary per year claim costs for the ACO's attributed beneficiaries to determine the gross savings for the ACO.

An ACO is then paid (or must pay back to CMS) a settlement based on the gross savings amount, the shared savings (or loss) rate of its risk track, and other items such as the ACO quality score. The amount of actual payment (or receipt) is known as the net savings amount.

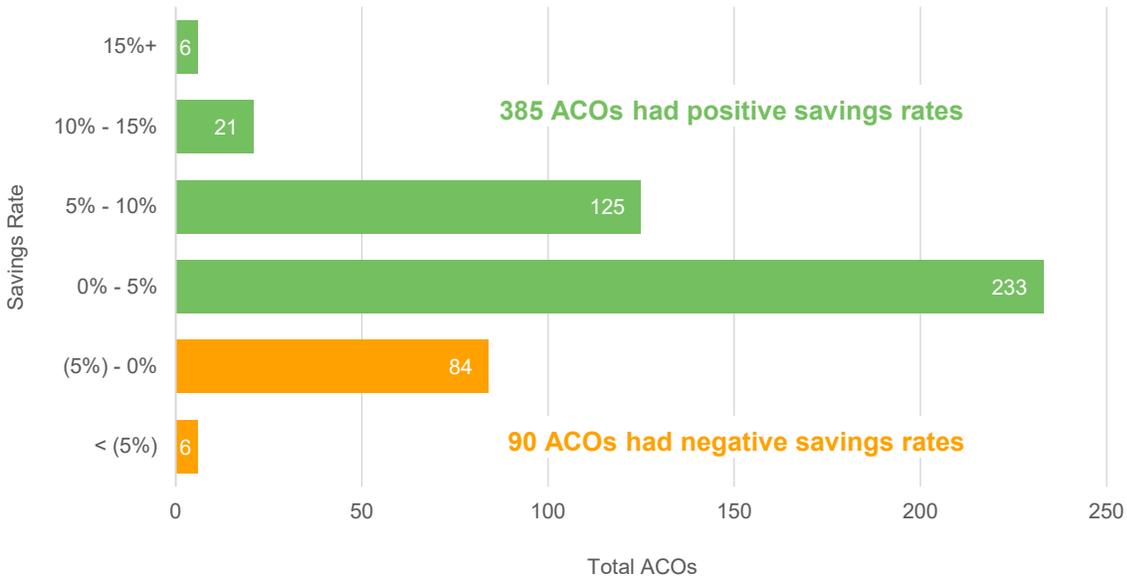
The remainder of this report focuses on the gross savings amounts, as we believe they are the best measure agnostic of risk track in an ACO's performance. Initially, we will discuss high-level data on ACO savings rates; subsequent sections will discuss observations and correlations around these savings rates.

In our savings rate exhibits, we primarily focus on 2021, with 2018 shown as a comparison point. We add a comparison point because we wish to illustrate some of the trends that have taken place in the program, as well as add credibility to our observed values through additional data points. We decided to compare against 2018 due to the large number of ACOs joining and leaving the program midyear in 2019, as CMS introduced Pathways to Success, along with the significant impact that COVID-19 had on 2020 results.

### DISTRIBUTION OF ACO SAVINGS RATES BY YEAR

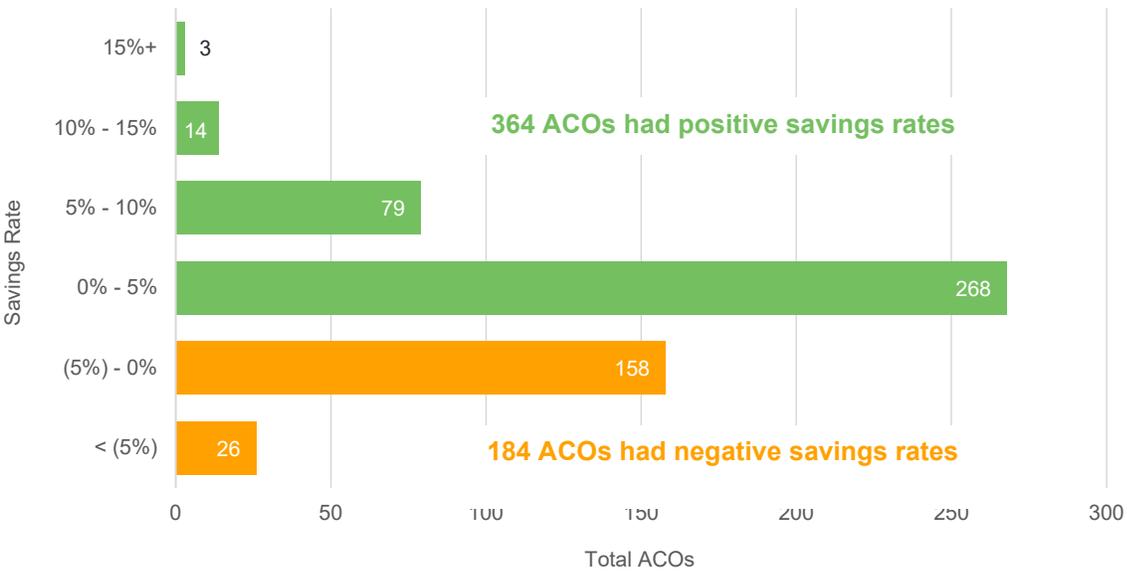
On average, ACOs have generated savings over time (compared to the benchmark), and 2021 is no exception. In 2021, the average savings rate across ACOs was 3.2%. This savings rate represents a composite across ACOs, with considerable variances by individual ACO. Figures 10 and 11 summarize the number of ACOs within ranges of savings rates specific to 2021 and 2018, respectively.

**FIGURE 10: 2021 GROSS SAVINGS RATE DISTRIBUTION**



In 2021, 81% of all ACOs reported positive savings, and 32% had savings above 5%. Both values represent a substantial shift against 2018, as shown in Figure 11.

**FIGURE 11: 2018 GROSS SAVINGS RATE DISTRIBUTION**



### AVERAGE SAVINGS RATES BY YEAR

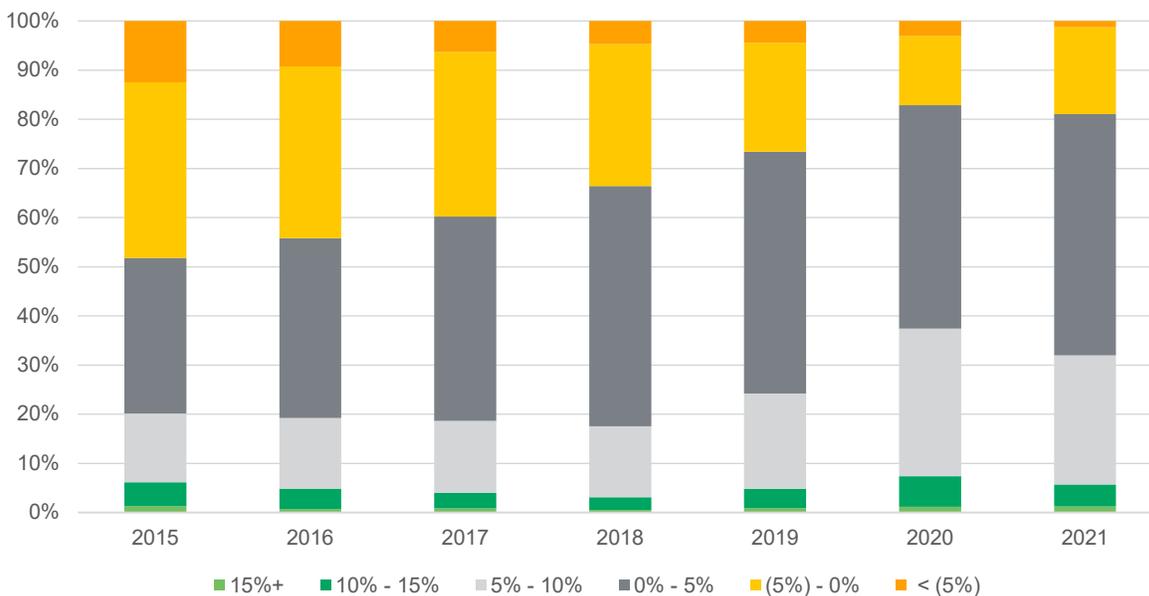
Savings rates for specific ACOs have varied between performance years, but the overall MSSP trend is that ACOs are generating increased savings over time. Figure 12 summarizes the average savings rates by year; while the 2020 savings rate may have been materially improved by COVID-19 impacts on claims, the longer-term pattern in savings has been relatively steady and positive, as illustrated by the 2021 value roughly fitting the curve established through 2019 if we exclude 2020. As low-performing ACOs have exited the program and remaining ACOs improved their ability to manage care and expenditures, the average savings rate has increased.

**FIGURE 12: AVERAGE GROSS SAVINGS RATE BY YEAR**



Additionally, we observe a steadily decreasing share of ACOs with losses from 2015 onward. We also observe an increasing share of ACOs with 5% or higher gains starting in 2019, predating the COVID-19 pandemic. Figure 13 illustrates these patterns.

**FIGURE 13: AVERAGE GROSS SAVINGS RATE DISTRIBUTION BY YEAR**



## Observations on gross savings rates

In this section, we show the distribution of achieved savings rates based on various characteristics, such as size, revenues, risk scores, and quality scores. These exhibits illustrate the variability that exists in the ACO space. As noted earlier in the paper, due to the potential for the COVID-19 pandemic to skew 2020 results, and the potential skew on 2019 results due to Pathways to Success shifting the timing around new ACOs and changes in tracks, we display results and observations for both 2021 and 2018.

An earlier Milliman study performed statistical analyses on a number of ACO characteristics, including factors outside the PUF files, against the 2019A PUF data.<sup>10</sup> This analysis can reasonably be compared to that study, and indeed a number of its conclusions are similar. We recommend that interested readers consider both analyses while developing a better understanding of the underlying drivers of ACO performance.

### TRACK

As shown in Figures 1 through 6 above, there has been substantial shifting in the distribution of ACOs by track over time. As of 2018, approximately 80% of ACOs were in Track 1, while by 2021 that number dropped to just over 25%. While some of this shift was Track 1 ACOs moving to Basic A or Basic B, there have nevertheless been substantial shifts between levels of risk. We therefore consider it important to examine the distribution of savings rates by risk levels.

In Figure 14, we show the distribution of savings rates for the same groupings of risk levels used in Figures 5 and 6 (No Risk, Low Risk, and High Risk), separately for 2018 and 2021. Between the two years, the figures below demonstrate a broad pattern of savings rates that are higher for ACOs taking on risk, as compared to the upside-only ACOs. However, we have not observed a pattern of material savings rate differences between low-risk and high-risk ACOs.

FIGURE 14: GROSS SAVINGS RATE DISTRIBUTION BY MSSP RISK LEVEL



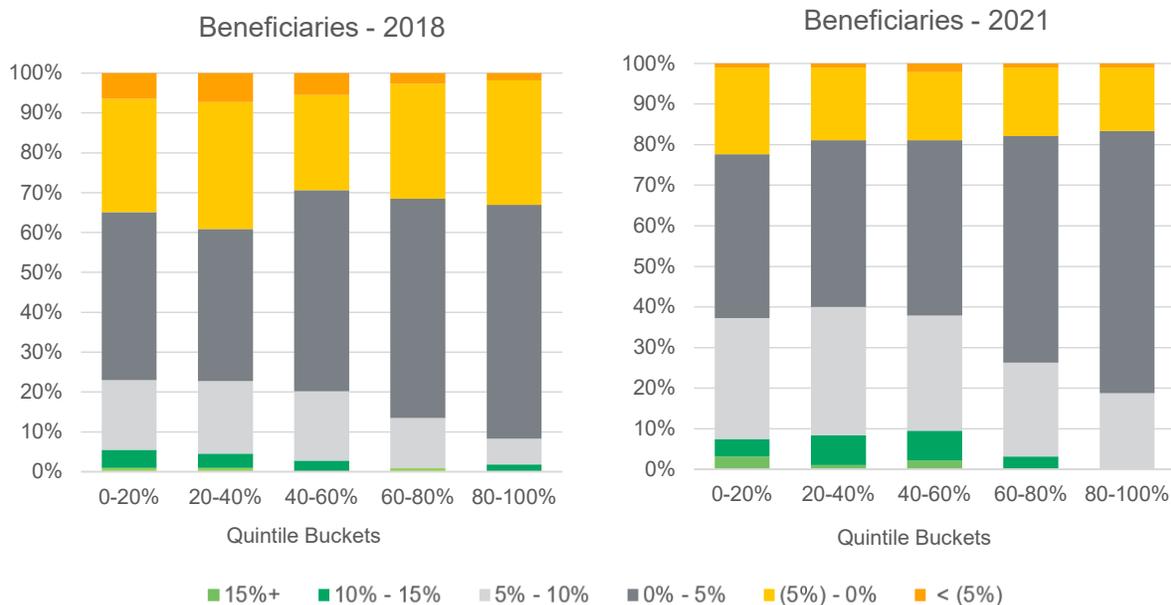
<sup>10</sup> Larson, A., Egan, M., Richards, R., & Gusland, C. (August 2021). What Predictive Analytics Can Tell Us About Key Drivers of MSSP Results: 2021 Update. Milliman White Paper. Retrieved December 15, 2022, from <https://www.milliman.com/-/media/milliman/pdfs/2021-articles/8-25-21-what-predictive-analytics-can-tell-us.ashx>.

### ACO SIZE

One possible characteristic associated with savings rate variation is ACO size, in terms of beneficiaries served. All else being equal, it is reasonable to expect random noise to have a relatively larger impact on savings rates for small ACOs while larger ACOs have more stable levels of savings.

As shown in Figure 15, actual savings rates for both 2018 and 2021 are broadly consistent with this theoretical expectation, with the largest gains and losses generally being associated with smaller ACOs, and relatively more average outcomes generally being associated with larger ACOs.

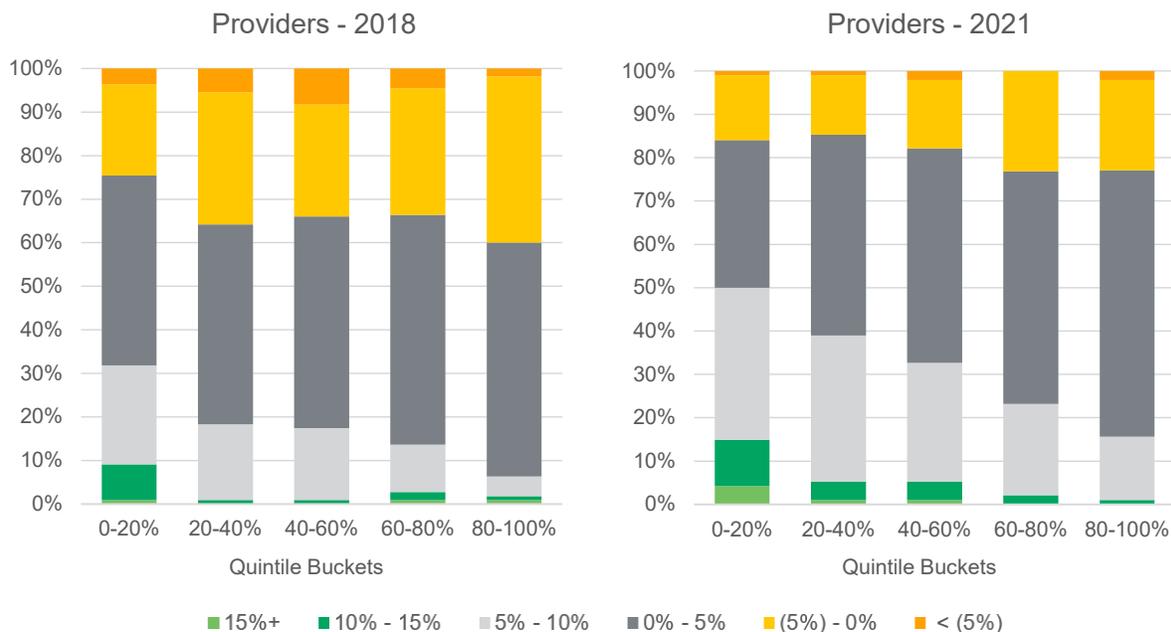
**FIGURE 15: GROSS SAVINGS RATE DISTRIBUTION BY BENEFICIARY COUNT PERCENTILE**



We also tracked the savings rates based on the number of providers instead of the number of beneficiaries. We show these results below. As you can see in Figure 16, the two sets of graphs broadly parallel each other. Given that we would normally expect the largest ACOs to have more beneficiaries and more providers, and the smallest ACOs to have fewer beneficiaries and fewer providers, this is not surprising.

However, we note that the tables, while broadly similar, are not precisely parallel. For instance, in 2021 the proportion of ACOs with savings rates of 5% or more (light gray, blue, and green sections) decreases in each step as the size of providers grows, while this is not the case in Figure 15 (by beneficiary count).

**FIGURE 16: GROSS SAVINGS RATE DISTRIBUTION BY PROVIDER COUNT PERCENTILE**

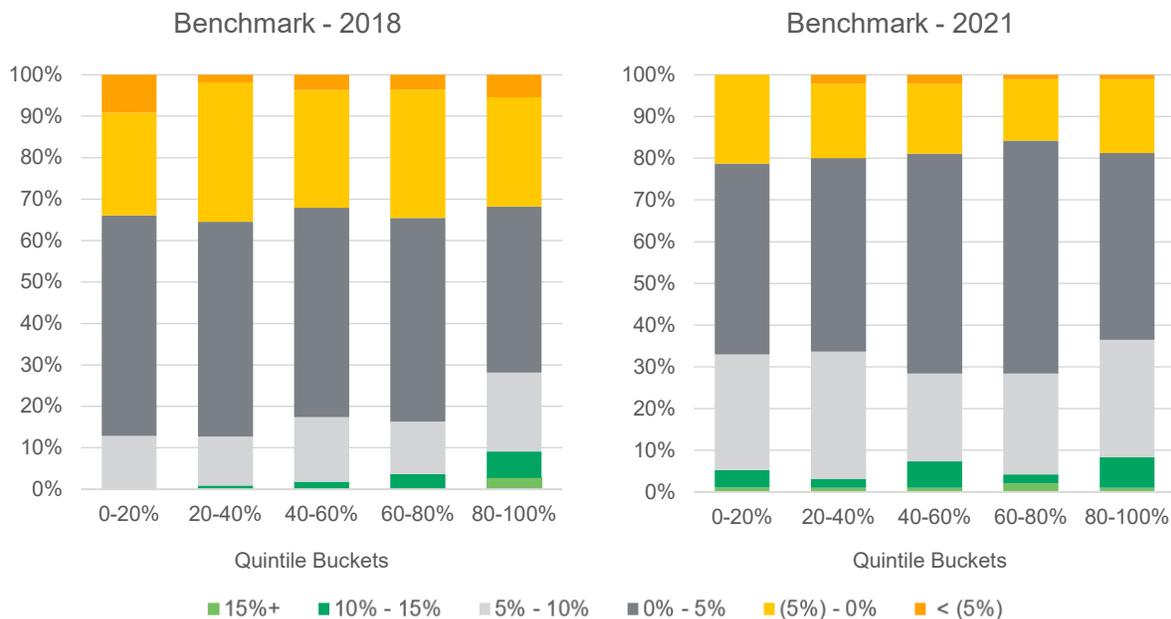


**BENCHMARK RATES**

ACOs across the country receive substantially different benchmark rates depending on area, mix of beneficiary types, and population risk score.

In Figure 17, we observe that the highest-benchmark ACOs tend to achieve a wider range of results than lower-benchmark ACOs; in particular, there is a higher percentage of ACOs with large gains for the ACOs with the highest 20% of benchmarks.

**FIGURE 17: GROSS SAVINGS RATE DISTRIBUTION BY BENCHMARK PERCENTILE**



### RISK SCORES

Given that benchmark rates are, in part, a function of risk scores, we examined the population risk scores as well. Here, the PUFs provide normalized CMS hierarchical condition categories (CMS-HCC) risk scores and beneficiary counts separately by Medicare eligibility category:

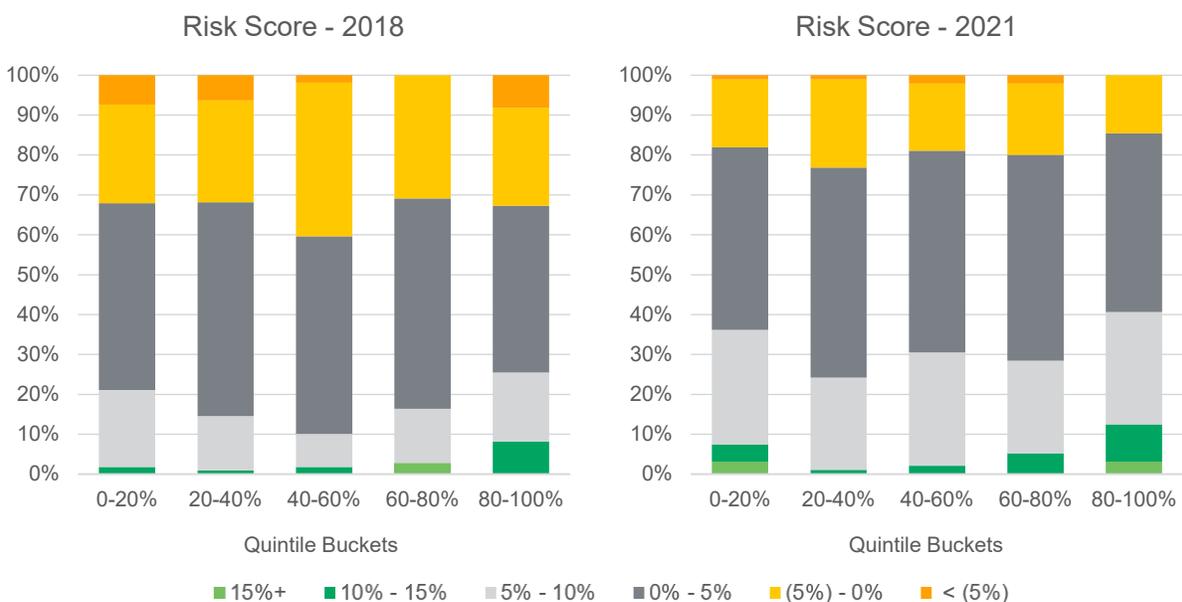
- End-stage renal disease (ESRD)
- Disabled
- Aged, dual
- Aged, non-dual

For the purposes of this calculation, we blended the risk scores across categories using beneficiary-weighted risk scores. Please note that a more precise calculation would factor in the impact of area as well as the baseline benchmark differences for the four categories.

Here we observe a substantial correlation between large achieved savings rates and higher population risk scores. Unlike the benchmark rates, however, there is no corresponding increase in the rate of ACOs with losses at higher risk scores.

We also note a correlation between large achieved savings rates and particularly low population risk scores. In the event that savings were driven by coding patterns, or by a handful of ACOs focusing on high-cost diseases for selected population groups, we might expect savings to be greatest for the highest risk score ACOs and lowest for the lowest risk score ACOs. Instead, we observe a pattern more like a V shape; ACOs with highest risk scores or the lowest risk scores tend to have greater savings, and the ACOs with middling risk scores tend to have lesser savings.

**FIGURE 18: GROSS SAVINGS RATE DISTRIBUTION BY RISK SCORE PERCENTILE**

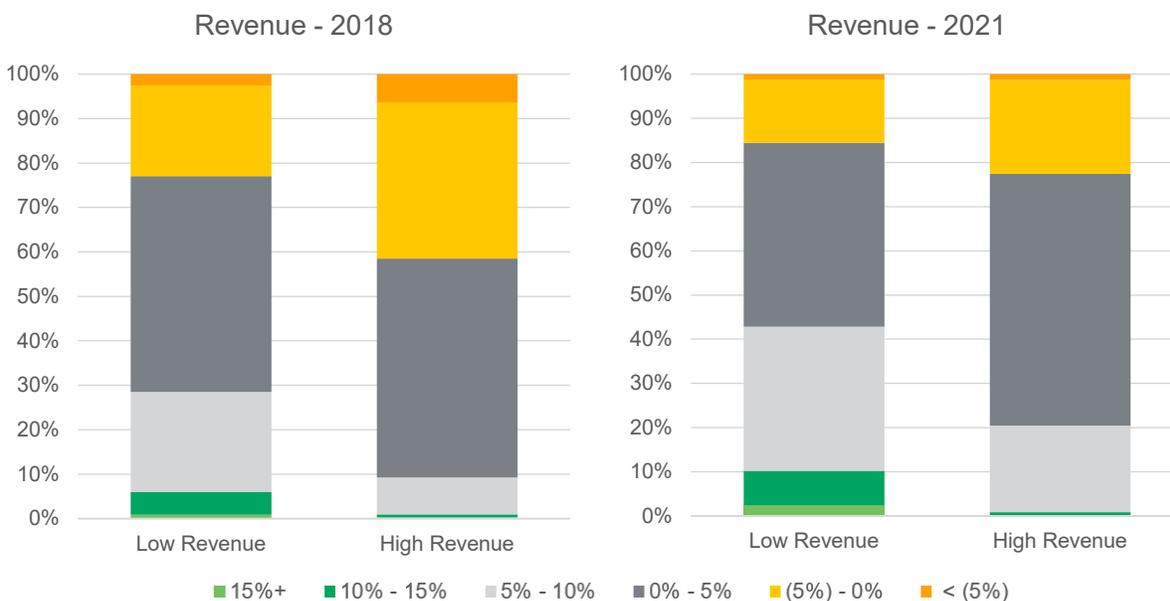


### LOW/HIGH REVENUE

Per the December 21, 2018, Pathways to Success final rule and press release from CMS, an ACO is designated as low or high revenue based on the ratio of the revenue of its ACO participating providers, as compared to the total Medicare expenditures of the ACO's assigned beneficiaries; if the ratio is 35% or higher, the ACO is designated as "high revenue," and if it is under 35% it is designated as "low revenue."<sup>11</sup>

CMS further noted that "low-revenue ACOs (which are typically composed of physician practices and rural hospitals) outperform high-revenue ACOs (typically ACOs that include hospitals)." This may be at least partially driven by the competing interests of high-revenue ACOs to maintain revenue within their hospitals while at the same time reducing the total expenditures for their attributed lives. We have analyzed the PUF data split by low versus high revenue designations and have observed a similar pattern. Figure 19 shows the distribution of savings rates by low-revenue versus high-revenue ACOs; the low-revenue ACOs have substantially more ACOs with 5% to 10%, 10% to 15%, and 15%+ savings rates, and substantially fewer ACOs with negative savings rates.

**FIGURE 19: GROSS SAVINGS RATE DISTRIBUTION BY LOW VS. HIGH REVENUE**



<sup>11</sup> Centers for Medicare and Medicaid Services (December 21, 2018). Fact Sheet: Final Rule Creates Pathways to Success for the Medicare Shared Savings Program. Retrieved December 15, 2022, from: <https://www.cms.gov/newsroom/fact-sheets/final-rule-creates-pathways-success-medicare-shared-savings-program>.

### INITIAL START DATE/DURATION

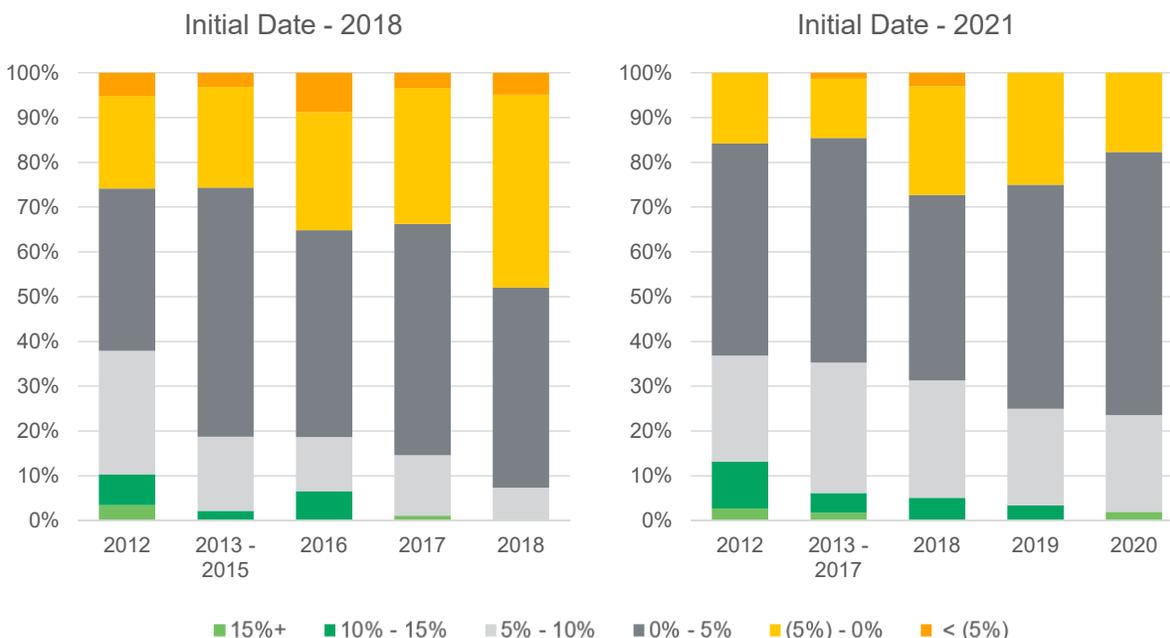
Another potentially relevant contributor to savings is duration of time in MSSP. It can take new ACOs some time to reach performance levels that would result in positive savings; additionally, for longer-term ACOs there may be some survivor bias, as the lowest-performing ACOs are likelier to have left the program.

In Figure 20, we tracked the savings rate distribution sorted by initial start date. The left-most column is the 2012 start date, the right-most three columns are the most recent start dates (current year, prior year, two years prior), and the second column from the left represents all other time periods. Note that no ACOs were allowed to begin their agreement period in 2021 hence the absence of 2021 in Figure 20.

In this chart, we can see that the longest-tenured ACOs (2012 start date) have done particularly well; meanwhile, there is no clear relative pattern of overachievement or underachievement for ACOs in their first, second, or third years.

However, we note that the 2018 cohort achieved lower savings rates than other cohorts in 2018, and had a higher proportion of negative savings rate ACOs in 2021. The 2018 cohort was the last set of ACOs that was grandfathered into Tracks 1, 2, and 3 and did not have a regional adjustment component in the first contract period. It is possible that this drove some of the observed results for this cohort.

**FIGURE 20: GROSS SAVINGS RATE DISTRIBUTION BY INITIAL START DATE**

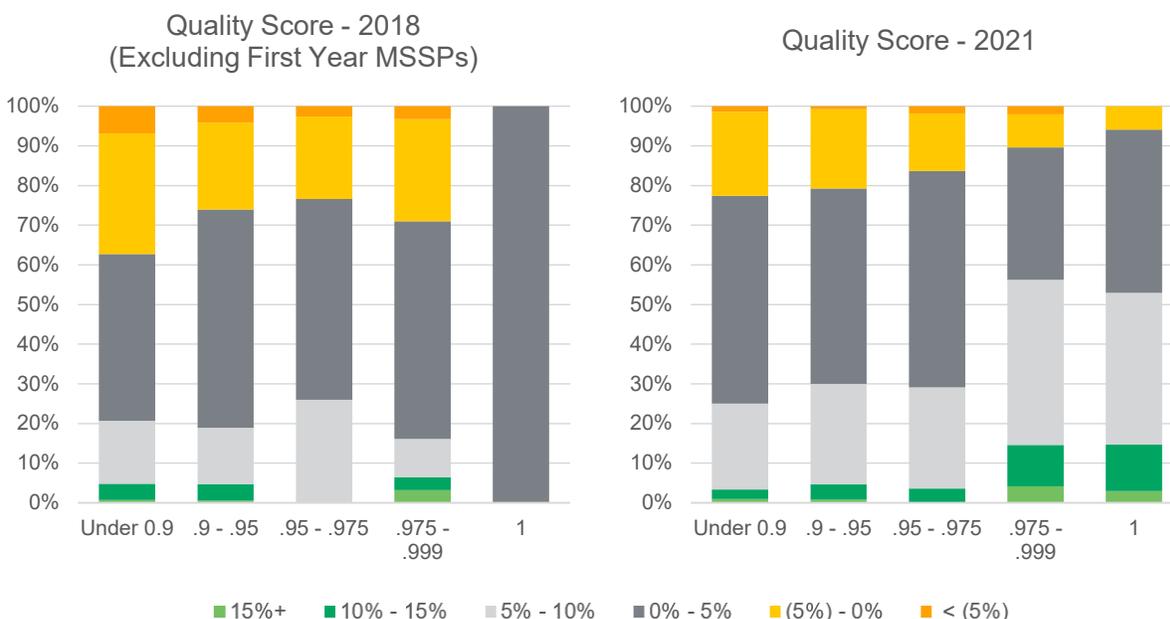


**QUALITY**

We also note that quality scores can impact net savings. As noted in CMS’s documentation, the final (net) shared savings rate is the product of the quality score and the gross sharing rate up through performance year (PY) 2020.<sup>12</sup> Beginning in PY2021, CMS modified the rules such that ACOs share in the maximum shared savings rate available for their risk track if they meet minimum quality requirements (otherwise they are not eligible to share in any savings). For PY2023, CMS is planning to revise this rule further to shift to a sliding scale approach for ACOs that fall below the 30<sup>th</sup>/40<sup>th</sup> percentile quality standard threshold.<sup>13</sup>

Beyond the relationship between quality scores and *net* savings, we considered it possible that there would be an additional association between quality scores and *gross* savings. We therefore tested the relationship between quality scores and gross savings rates based on the 2018 and 2021 data, as shown in Figure 21. As you can see, we did not observe a strong relationship between quality scores and achieved gross savings rates.

**FIGURE 21: GROSS SAVINGS RATE DISTRIBUTION BY QUALITY SCORE RANGE**



One key point to note about Figure 21 is that first-year ACOs disproportionately received 1.0 quality scores in 2018. This is due to the CMS rules mandating that, for the first performance year of an ACO’s first agreement period (through 2020), CMS uses reporting instead of performance to assign ratings, with reporting phasing out in future years.<sup>14</sup> We therefore removed first-year ACOs from the 2018 chart, and the resulting chart only has three ACOs with quality scores of 1.0. For 2021, there were no first-year ACOs, so we did not make a similar adjustment, though in this case there were 34 ACOs who achieved full quality scores of 1.0.

We also note that, in 2021, there was a notable correlation between quality scores and gross savings, with ACOs at 0.975 or greater quality scores disproportionately achieving higher savings rates. We will continue to observe these results to see if this trend continues going forward, or if it was a short-term shift, possibly related to the changes in CMS rules around quality scores due to the public health emergency.

<sup>12</sup> Centers for Medicare and Medicaid Services (August 2020), Medicare Shared Savings Program: Shared Savings and Losses and Assignment Methodology, op cit.

<sup>13</sup> Centers for Medicare and Medicaid Services. Calendar Year (CY) 2023 Medicare Physician Fee Schedule Final Rule – Medicare Shared Savings Program. Retrieved December 15, 2022 from <https://edit.cms.gov/files/document/mssp-fact-sheet-cy-2023-pfs-final-rule.pdf>.

<sup>14</sup> Centers for Medicare and Medicaid Services (August 2020), Medicare Shared Savings Program: Shared Savings and Losses and Assignment Methodology, op cit.

## Limitations and data reliance

The results contained in this report were compiled using data and information available in the CMS PUFs. This data was retrieved as of October 4, 2022, from CMS's database.

The information was relied upon as reported and without audit. We performed a limited review of the data for reasonableness and consistency. To the extent that the data reported contained material errors or omissions, the values contained within this report would likewise contain similar reporting errors.

This report is intended for informational purposes only. Milliman makes no representations or warranties regarding the contents of this report. Likewise, readers of this report are instructed that they are to place no reliance upon this report that would result in the creation of any duty or liability under any theory of law by Milliman or its employees to third parties.

The views expressed in this research paper are made by the authors and do not represent the opinions of Milliman, Inc. Other Milliman consultants may hold alternative views and reach different conclusions from those shown.

## Qualifications

Guidelines issued by the American Academy of Actuaries require actuaries to include their professional qualifications in all actuarial communications. Matthew Smith and Brent Jensen are members of the American Academy of Actuaries and meet the qualification standards for performing the analyses in this report.



Milliman is among the world's largest providers of actuarial and related products and services. The firm has consulting practices in life insurance and financial services, property & casualty insurance, healthcare, and employee benefits. Founded in 1947, Milliman is an independent firm with offices in major cities around the globe.

[milliman.com](https://www.milliman.com)

### CONTACT

**Matthew Smith**  
[matthew.smith@milliman.com](mailto:matthew.smith@milliman.com)

**Brent Jensen**  
[brent.jensen@milliman.com](mailto:brent.jensen@milliman.com)

**Jacob Anderson**  
[jacob.anderson@milliman.com](mailto:jacob.anderson@milliman.com)

© 2022 Milliman, Inc. All Rights Reserved. The materials in this document represent the opinion of the authors and are not representative of the views of Milliman, Inc. Milliman does not certify the information, nor does it guarantee the accuracy and completeness of such information. Use of such information is voluntary and should not be relied upon unless an independent review of its accuracy and completeness has been performed. Materials may not be reproduced without the express consent of Milliman.