ACO REACH Model

PY2025 Financial Operating Guide: Overview

Prepared for:
Centers for Medicare & Medicaid Services (CMS)
Center for Medicare & Medicaid Innovation
Seamless Care Models Group
7500 Security Boulevard, N2-13-16
Baltimore, MD 21244-1850

Prepared by:
RTI International

Reference Documents

Title
ACO REACH Model: Capitation and Advanced Payment Mechanisms
ACO REACH and Kidney Care Choices Models: Rate Book Development
ACO REACH and Kidney Care Choices Models: Risk Adjustment
ACO REACH Model: Financial Settlement Overview
ACO REACH Model: Quality Measurement Methodology
ACO REACH Model: PY2025 Participant and Preferred Provider Management Guide

Acronyms

A&D	Aged & Disabled
ACO	Accountable Care Organization
APO	Advanced Payment Option
BY	Base Year
CAH2	Critical Access Hospital Method 2
CEC	Comprehensive ESRD Care
CCM	Chronic Care Management
CDI	Community Deprivation Index
CMMI	Center for Medicare & Medicaid Innovation
CMS	Centers for Medicare & Medicaid Services
CPC+	Comprehensive Primary Care Plus
ESRD	End Stage Renal Disease
GAF	Geographic Adjustment Factor
GPDC	Global and Professional Direct Contracting
HCC	Hierarchical Condition Category
HCPCS	Healthcare Common Procedure Coding System (HCPCS)
MA	Medicare Advantage
NGACO	Next Generation ACO
NPP	Non-Physician Practitioner
OACT	Office of the Actuary
PBPM	Per-Beneficiary-Per-Month
PCC	Primary Care Capitation
PECOS	Provider Enrollment, Chain, and Ownership System
PQEM	Primary Care Qualified Evaluation and Management
PY	Performance Year
TCC	Total Care Capitation

Table of Contents

Section 1: Introduction

The ACO REACH model is a redesigned version of the Global and Professional Direct Contracting (GPDC) Model, which began on April 1, 2021. The ACO REACH Model redesign began on January 1, 2023 and will run through 2026. For completeness and context, this paper may refer to policies in PY2021 and PY2022 of the GPDC Model. For more information on the ACO REACH Model, see **https://innovation.cms.gov/innovation-models/aco-reach.**

This document is the first in a series of documents that provide REACH Accountable Care Organizations (ACOs) with the necessary details to understand the financial aspects of the ACO REACH Model. It provides an overview of each component of the financial methodology but primarily focuses on the detailed calculation of the benchmark and relevant components. Additional policy documents provide detail on other specific elements of financial operations, including the following:

- Use of risk adjustment models to set the benchmark,
- Development of the ACO REACH/KCC Rate Book,
- Total Care Capitation/Primary Care Capitation and Advanced Payment Option (APO) Payment Mechanisms, and
- Settlement and Financial Settlement, including stop-loss reinsurance and risk corridors.

Section 2 provides a general overview of ACO REACH Model features relevant to financial operations, including a high-level description of the risk arrangements and payment mechanisms that are available to an ACO and the ACO REACH financial settlement process.

Section 3 provides background on ACO REACH benchmarking components such as risk adjustment and the ACO REACH/KCC Rate Book, which will be used at multiple points in the calculation of the Benchmark. Separate policy documents specify the detailed operational approach for the development of risk scores and ACO REACH/KCC Rate Book for the ACO REACH Model.

Section 4 provides details for the calculation of the Performance Year (PY) Benchmark, including the development of the historical baseline expenditures, the prospective trend, the geographic adjustment factors, the regional rate, and the blended Benchmark calculation.

Section 5 provides an overview of the operating policies for financial settlement, including the application of risk mitigation mechanisms and the timing of the preliminary and final Financial Settlement. Detailed settlement and risk mitigation policies are further specified as part of a separate operating policy document.

Section 2: Overview of ACO REACH Model Financial Operations

ACO REACH creates a variety of pathways to assume financial risk. As a result of this flexibility, the details related to many of the aspects of the financial methodology (benchmark calculation, capitation payment options, risk sharing and mitigation details, and settlement) are specific to ACO type and risk arrangement (also referred to as risk option) type. A summary of the different combinations of financial options available to ACOs is provided in **Figure 2.1**. The specific variations reflect (1) the basis for a beneficiary's alignment to the ACO, (2) the risk arrangement selected by the ACO, (3) the payment mechanism(s) selected by the ACO, (4) the risk mitigation mechanism(s) selected by the ACO, and (5) the settlement payment timeline selected by the ACO.

Figure 2.1: Overview of ACO Financial Arrangement Options

Model Component	Financial Arrangement Options		
Beneficiary Alignment	Voluntary and Claims-Based[1]		
Risk Arrangement	Global[2]		Professional[3]
Capitation Arrangement	Total Care Capitation	Primary Care Capitation	Primary Care Capitation
Advanced Payment Option	N/A	Optional[4]	
Stop-Loss Reinsurance	Optional		
Provisional Settlement	Optional		

[1] All ACO types use both voluntary and claims-based alignment.
[2] An ACO electing the Global risk arrangement can choose between Total Care Capitation and Primary Care Capitation.
[3] An ACO electing the Professional risk arrangement must participate in Primary Care Capitation.
[4] Advanced payment is not an option for an ACO that elects to participate in Total Care Capitation.

2.1 ACO Types

Within ACO REACH, there are three types of ACOs, defined based on the experience of Participant Providers with Medicare fee-for service (FFS) risk-based contracting and the populations the entities primarily serve:

- A Standard ACO is an organization with substantial experience with risk-based FFS contracts. Many of the Participant Providers in a Standard ACO may have participated in another CMS program or innovation model that involves risk sharing, such as the Medicare Shared Savings Program, Next Generation Accountable Care Organization (NGACO), Comprehensive Primary Care Plus (CPC+), Comprehensive ESRD Care (CEC), or Primary Care First (PCF), among others. Some ACOs may have experience participating in section 1115A models involving shared savings, whereas others may be newly formed to participate as an ACO.
- A New Entrant ACO is an organization with limited experience with risk-based FFS Medicare experience. Most of the Participant Providers in a New Entrant ACO have not participated in another CMS program or innovation model that involves risk sharing in Medicare FFS.
- A High Needs Population ACO is an organization that serves Medicare FFS beneficiaries with complex health needs, including dually eligible beneficiaries. These ACOs are expected to use a model of care designed to serve individuals with complex needs, similar to the Program of All-Inclusive Care for the Elderly model, to coordinate care for their aligned beneficiaries.

For each of the three ACO types, there are specific approaches to benchmark calculations. This paper elaborates on these approaches in each section, where applicable.

2.2 Alignment

An ACO is responsible for the cost and quality of the care received by beneficiaries who are aligned to it. A beneficiary is aligned to an ACO either because the beneficiary:

- Has designated a qualifying Participant Provider as their principal source of care (voluntary alignment); or
- Has historically received the plurality of primary care services from Participant Providers (claims alignment).

The methods used to determine the voluntary and claims-aligned populations are described in detail in Appendix B: Beneficiary Alignment Procedures.

Both voluntary and claims alignment are used for all three ACO types. Beneficiary alignment mechanism, ACO type, and performance year may determine the approach used for benchmark calculation. This is described later in Section 4.

2.3 ACO REACH Risk-Sharing Arrangements

ACO REACH offers both risk-sharing arrangements and risk mitigation strategies. The two risk-sharing arrangements are the Global Option and the Professional Option.

- Under the Global Option risk arrangement (hereafter referred to as Global), the ACO assumes "full reward" for any savings and "full risk" for any losses. Under this arrangement, the benchmark is discounted (such as 3.5% in PY2025) and the ACO is eligible for a "reward" of up to 100% of any savings but is also "at risk" for up to 100% of any losses.
- Under the Professional Option risk arrangement (hereafter referred to as Professional), the ACO assumes "partial reward" for any savings and "partial risk" for any losses. Under this arrangement, the benchmark is not discounted, but the ACO is eligible for a "reward" of up to only 50% of savings while being at risk for up to only 50% of any losses.

2.4 ACO REACH Risk Mitigation Strategies

ACO REACH includes two risk mitigation strategies available for ACOs: risk corridors and stop-loss reinsurance. Risk corridors determine the percentage of the savings or losses that are retained by the ACO. Within both the Global and Professional risk arrangement options, each risk corridor is a range (or "band") of savings/losses as a percent of an ACO's Benchmark for a performance period. The savings or losses that fall within each band are associated with a specific level of share rate for the ACO, with lower levels of share rates as savings/losses increase. The size of the risk corridor bands and the percent of savings of losses in which an ACO shares vary based on the risk-sharing arrangement selected.

Another risk mitigation strategy is the optional stop-loss reinsurance. The purpose of the stop-loss arrangement is to reduce the financial uncertainty associated with infrequent but high-cost expenditures for aligned beneficiaries. Stop-loss protects ACOs from financial liability for individual beneficiary expenditures above the stop-loss "attachment points," the dollar thresholds at which stop-loss protection begins. Beginning in PY2023 and for subsequent performance years, ACO REACH has used a residual approach for the stop-loss reinsurance that factors in the predicted expenditures for a given beneficiary. Stop-loss arrangements are an optional feature of both Global and Professional

options.

The full details of the risk corridors and stop-loss arrangement are provided in the ***ACO REACH Model: Financial Settlement*** operating policy document.

2.5 ACO REACH Payment Mechanisms

ACO REACH offers two payment mechanisms in which ACOs are paid a monthly capitated amount based on claims reductions made for Participant Providers and Preferred Providers. All ACOs must participate in one of the Capitation Payment Mechanisms:

1. Under Total Care Capitation (TCC) the capitated payment to the ACO applies to all services covered by Medicare Parts A and B that are provided to aligned beneficiaries by (a) Participant Providers and (b) Preferred Providers participating in TCC. Providers will receive FFS payments only for the portion of claims that are outside the scope of the TCC (which may include any unreduced portion of claims for Preferred Providers and any beneficiaries who had opted out of data sharing, or claims related to alcohol and substance use treatment, for example).
2. Under Primary Care Capitation (PCC) the capitated payment to the ACO applies only to certain primary care services provided to aligned beneficiaries by (a) Participant Providers (who are Primary Care Specialists) and (b) Preferred Providers (who are Primary Care Specialists) participating in PCC. Those providers will continue to receive FFS payment for non-primary care services that are outside the scope of the PCC payment. An ACO electing PCC may also elect to receive reduced FFS payments for services not subject to PCC under the optional Advanced Payment Option (APO).

TCC is available only to an ACO that elects the Global (Full Risk) Option; if not TCC, Global ACOs have the choice to participate in PCC. However, an ACO that elects the Professional (Partial Risk) Option must participate in PCC, as summarized in **Figure 2.2.**

Note that the claims reduction amounts selected by providers must be integer values.

Figure 2.2: Overview of ACO Capitation Mechanisms

Payment Mechanism Elected by the ACO	Participant Providers	Preferred Providers
TCC	Must Participate[1] 100% Claims Reduction, all PYs	Optional for all PY's If selected, 1%–100% Claims Reduction, all PYs
PCC	Must Participate in PY2025 [2,3,4] PY2023: Primary Care Claims Reduction 10%–100% PY2024: Primary Care Claims Reduction 20%–100% PY2025: Primary Care Claims Reduction 100% PY2026: Primary Care Claims Reduction 100%	Optional for all PYs If selected, 1%–100% Claims Reduction for Primary Care Claims, all PYs
APO (only available if PCC is also elected)	Optional If selected, 1%–100% Non-Primary Care Claims Reduction, all PYs	Optional If selected, 1%–100% Non-Primary Care Claims Reduction, all PYs

[1] Participant Providers added during the performance year by TCC ACOs are not able to elect TCC FFS claims reductions, with the exception of existing Participant Providers impacted by a TIN change during the performance year.

[2] Participant Providers added during the performance year by PCC ACOs are not able to elect PCC FFS claims reductions, with the exception of existing Participant Providers impacted by a TIN change during the performance year Performance Year.

[3] Participant Providers in ACOs that have selected the PCC payment mechanism for PY2025 must elect to participate in PCC and have a fee reduction amount of 100% selected in 4i for PY2025, but only if the Participant Provider bills PCC-eligible services.

Note: All claims reduction amounts must be integer values only. In order for a provider to terminate claims reductions for TCC/PCC/APO during the performance year, the Participant or Preferred Provider must terminate their participation in the model.

[4] This requirement did not begin in PY2025.

For TCC, all Participant Providers must participate in the payment mechanism elected by the ACO and have relevant FFS claims reduced by 100%. Conversely, Preferred Providers may individually choose whether to participate in the payment mechanism and may choose the desired percent reduction for relevant FFS claims (1%–100%).

For PCC, all Participant Providers must participate in the payment mechanism elected by the ACO but are able to choose the percentage by which relevant FFS claims are reduced (above an established floor). This floor is set at 10% for PY2023, 20% for the PY2024, and 100% for the PY2025 and PY2026. Conversely, Preferred Providers may individually choose whether to participate in the payment mechanism and (if they choose to participate) may choose the desired percent reduction for relevant FFS claims (1%–100%) in all performance years.

An ACO electing PCC may also elect to participate in the optional APO. The APO is available only to Participant and Preferred Providers of an ACO electing PCC. It is up to each individual provider to decide whether they want to pursue claims reduction via the APO, and each participating provider may choose the desired percent reduction for relevant FFS claims (1%–100%). Because APO applies to services for which PCC does not apply, APO is complementary to PCC in that APO and PCC will never apply to the same service.

The full details of the payment mechanisms are provided in the ***ACO REACH Model: Capitation and Advanced Payment Mechanisms*** operating policy document.

Section 3: Background on Benchmark Components

The ACO REACH benchmarking approach relies on a number of components outside the scope of this paper, such as risk adjustment and the ACO REACH/KCC Rate Book. These features are described in detail in separate papers but are introduced below with a focus on where they apply within the benchmarking methodology to provide context for when they are referenced in subsequent sections.

3.1 Risk Adjustment

Risk adjustment is a method for measuring population health risk and modifying payments to reflect the predicted expenditures of that population. Measurement of a population's health risks is achieved by designing and estimating models to predict expenditures based on demographic characteristics and medical conditions (Hierarchical Condition Categories [HCCs]). The risk score is the measurement of a beneficiary's risk status. Beneficiaries with risk scores greater than 1.0 are expected to incur higher medical costs than average, and beneficiaries with risk scores less than 1.0 are expected to incur lower medical costs than average.

The benchmark expenditure for ACO REACH is adjusted to reflect the risk, or expected cost, of ACO-aligned beneficiaries. ACO REACH risk adjustment uses two risk adjustment models: (1) the CMS-HCC risk adjustment model (Aged & Disabled [A&D] and End Stage Renal Disease [ESRD]) used in the MA program and (2) a new risk adjustment model (A&D) developed specifically for use in ACO REACH.

The existing CMS-HCC A&D model is used for risk adjustment in Standard ACOs and New Entrant ACOs. The existing CMS-HCC ESRD risk adjustment model is used for risk adjustment in all models (Standard ACOs, New Entrant ACOs, and High Needs Population ACOs).

The new risk adjustment model, which is broadly based on the CMS-HCC A&D risk adjustment model, has been modified to improve payment accuracy for beneficiaries with serious or acute illness in the concurrent year. This new model is used for risk adjustment of A&D beneficiaries in the High Needs Population ACOs.

The details of ACO REACH risk adjustment methodology are described in the ***ACO REACH and Kidney Care Choices Models: Risk Adjustment*** paper.

3.2 ACO REACH/KCC Rate Book

The MA Rate Book is used by MA Plans and establishes county-level rates for A&D beneficiaries and state-level rates for ESRD beneficiaries. The methodology for the most recently available MA Rate Book was the starting point to develop the ACO REACH/KCC Rate Book specifically for ACO REACH, for the purposes of establishing regional expenditures for the calculation of an ACO's financial benchmark. An ACO's region is defined as all counties in which one or more beneficiaries aligned to the ACO in the performance year reside. The regional rate for each ACO is an eligible-month weighted average of the counties where the ACO's aligned beneficiaries reside.

The ACO REACH/KCC Rate Book is based on the same methodology used for the MA Rate Book with adjustments to (1) remove factors applied to the MA Rate Book that are not relevant for ACO REACH (such as FFS spending quartiles and quality bonus payment percentage for star ratings), (2) add components of Medicare FFS expenditures not included in the MA Rate Book (such as hospice services), and (3) include only the experience of FFS beneficiaries who are eligible to participate in ACO REACH. As with the MA Rate Book, this ACO REACH/KCC Rate Book establishes a county rate for the A&D beneficiaries and a state-level rate for ESRD beneficiaries (with county-level Geographic

Adjustment Factor (GAF) adjustments).

The role of the regional rate (from the ACO REACH/KCC Rate Book) in the benchmark will be described in Section 4 in greater detail but generally varies based on the ACO type, beneficiary alignment method, and performance year. In some cases, it is incorporated into ACOs' historical baseline expenditures to arrive at a blended benchmark (described in Sections 4.1.5 and 4.1.6). There are limits on the maximum upward (a ceiling of 3-9%, dependent on ACO type, of the FFS USPCC for the performance year) and downward (a floor of 2% of the FFS USPCC for the performance year) adjustment that can result from incorporating regional expenditures into the benchmark. In other instances, the regional rate is used as the entirety of the baseline experience (Section 4.2).

The details of the ACO REACH/KCC Rate Book construction are described in the ***ACO REACH and Kidney Care Choices Models: ACO REACH/KCC Rate Book Development*** methodological paper.

Section 4: Benchmark Expenditure

The Performance Year Benchmark is the target amount for Medicare expenditures on covered items and services furnished to an ACO's aligned beneficiaries during a performance year. As shown in **Figure 4.1**, the Performance Year Benchmark is calculated differently across ACO types (Standard, New Entrant, High Needs Population), basis for beneficiary alignment (claims-aligned and voluntarily aligned), and performance year (PY2021, PY2022, PY2023, PY2024, PY2025, and PY2026).

Figure 4.1: Calculation of Benchmark Expenditure by ACO Type and Basis for Beneficiary Alignment[1]

<table>
<tr><th rowspan="2">Performance Year</th><th colspan="2">Standard ACO</th><th>New Entrant ACO[2]</th><th>High Needs Population ACO[3]</th></tr>
<tr><th>Claims-Aligned Beneficiaries</th><th>Voluntarily Aligned Beneficiaries</th><th>All Beneficiaries</th><th>All Beneficiaries</th></tr>
<tr><td>PY2021</td><td rowspan="6">Blend of historical baseline expenditure[4] and ACO REACH/KCC Rate Book (Historical Blended Benchmark)</td><td colspan="3" rowspan="3">Driven primarily by the ACO REACH/KCC Rate Book (Rate Book Driven Benchmark)</td></tr>
<tr><td>PY2022</td></tr>
<tr><td>PY2023</td></tr>
<tr><td>PY2024</td><td colspan="3" rowspan="3">Blend of historical baseline expenditure[5] and ACO REACH/KCC Rate Book (Historical Blended Benchmark)</td></tr>
<tr><td>PY2025</td></tr>
<tr><td>PY2026</td></tr>
</table>

[1] Beneficiaries who could be aligned to the same ACO via both voluntary and claims-based alignment will be treated as having claims-based alignment for benchmarking.
[2] If a New Entrant ACO has greater than 3,000 claims-aligned beneficiaries in any of the three base years (2017, 2018, or 2019), they will participate as a Standard ACO and will use the Standard ACO methodology.
[3] If a High Needs Population ACO has greater than 3,000 claims-aligned beneficiaries in any of the three base years (2017, 2018, or 2019), their benchmark will be calculated using the Standard ACO methodology.
[4] The historical baseline period for claims-aligned beneficiaries in a Standard ACO is 2017, 2018, 2019.
[5] The historical baseline period for voluntarily aligned beneficiaries in PY2025 is 2021, 2022, and 2023 and PY2026 is 2022, 2023, 2024 for all ACO types. For claims-aligned beneficiaries to New Entrant and High Needs Population ACOs the historical baseline period is 2021, 2022, 2023.

Examples in this section primarily focus on the basic methodology for Standard ACOs, with specific call outs to the unique features associated with New Entrant and High Needs Population ACOs, where applicable. This paper focuses on the Standard ACO methodology because, as **Figure 4.1** shows, the benchmarking methodology for New Entrant and High Needs Population ACOs parallels the Standard ACO methodology in PY2025 and PY2026.

For all ACO types, a per-beneficiary per-month (PBPM) benchmark will be developed separately for both the A&D and ESRD beneficiary categories. This paper introduces all the steps and concepts applied in the calculation of the benchmark including an illustration of a complete benchmark calculation.

4.1 Benchmark Expenditure for Beneficiaries Aligned Based on Claims

The benchmark for claims-aligned beneficiaries is a combination of both a benchmark based upon historically-aligned beneficiary experience and a ACO REACH/KCC Rate Book-derived benchmark. These two components are blended together to determine the benchmark for claims-aligned beneficiaries aligned during the performance year.

4.1.1 Historical Baseline Expenditure

For beneficiaries aligned via claims, the historical baseline is established based on aggregating all Medicare Parts A and B expenditures incurred by beneficiaries who would have been claims-aligned to

the ACO in the base years. For Standard ACOs these are (BYs) 2017, 2018, and 2019.

For the New Entrant ACO and High Needs Population ACO types, the benchmarking in PY2021–PY2024 was based entirely on regional expenditures, measured via the ACO REACH/KCC Rate Book, whether beneficiaries are aligned through voluntary alignment or claims-based alignment. For PY2025 and PY2026, the recent historical expenditures for these beneficiaries will also be used to calculate the historical baseline expenditures for the benchmark. The historical period for claims-aligned beneficiaries in New Entrant ACOs and High Needs Population ACOs in PY2025 and PY2026 is 2021, 2022, 2023. These historical expenditures are combined and weighted, giving more weight to the more recent historical year (10%, 30%, and 60%, respectively). The expenditures themselves are recalculated each performance year to reflect any changes in Participant Providers who are participating in the model, which correspond to changes in the beneficiaries who would have been claims-aligned to those providers in the same BYs. Expenditures include the amounts paid on all claims for covered services provided to each beneficiary during months of eligible alignment and all associated claims, including any reductions or payment adjustments from other Medicare programs. For example, amounts paid on claims that were zeroed out or reduced because of participation in the NGACO program would be counted before any payment reductions. Historical baseline expenditures may also be adjusted for Significant, Anomalous, and Highly Suspect (SAHS) Billing, or the removal of over-the-counter COVID_19 tests during the public health emergency.

Figure 4.2 (see Section 4.1.5) includes an illustration of the historical baseline expenditure for claims-aligned beneficiaries.

In order for CMS to construct a reliable baseline, Standard ACOs must have at least 3,000 claims-aligned beneficiaries in at least one of these BYs (2017, 2018, 2019); Standard ACOs without 3,000 claims-aligned beneficiaries in any of the three BYs are not eligible to participate in the model. Conversely, New Entrant ACOs must have fewer than 3,000 claims-aligned beneficiaries for all three of these BYs (2017, 2018, 2019); if a New Entrant ACO has at least 3,000 claims-aligned beneficiaries in at least one BY, they will participate as a Standard ACO, provided they meet other eligibility criteria. High Needs Population ACOs with at least 3,000 claims-aligned beneficiaries for any of the three BYs (2017, 2018, 2019) will follow the benchmarking methodology for Standard ACOs, except that risk adjustment will continue to be applied using the High Needs Population ACO methodology.

Beginning in PY2025, the recent historical expenditures for beneficiaries attributed via voluntary alignment, will be used to calculate the historical baseline expenditures for the benchmark. The historical baseline period for voluntarily aligned beneficiaries in PY2025 is 2021, 2022, 2023, and the historical baseline period for voluntarily aligned beneficiaries in PY2026 is 2022, 2023, 2024.

In order for CMS to construct a reliable baseline, Standard and New Entrant ACOs must have at least 500 voluntarily-aligned beneficiaries in at least once of these BYs. High Needs ACOs must have at least 250 or more voluntarily-aligned beneficiaries in at least one of these BYs. If the minimum threshold is not met, the 100% regional benchmark methodology used in PY2021-PY2024, will remain in place for voluntarily-aligned beneficiaries.

4.1.2 Risk Standardization

Risk standardization is a method for standardizing expenditures for population health risks. Every beneficiary has a risk score that is a measure of their total risk status based upon demographic characteristics and medical conditions (HCCs). The ACO's risk score is a weighted average of the risk scores of all aligned beneficiaries. To risk standardize expenditures, the ACO's baseline expenditure for each BY is divided by the ACO's normalized risk score for the respective BY.

Figure 4.2 (in Section 4.1.5) includes an illustration of the risk-standardized baseline expenditure.

4.1.3 Application of Prospective Trend

The USPCC growth trend is developed annually by the CMS Office of the Actuary (OACT) and announced in the annual Announcement of calendar year MA Capitation Rates and Part C and Part D Payment Policies released no later than the first Monday in April of the prior calendar year.[1] An adjusted version of the USPCC annual growth trend, which removes costs associated with uncompensated care and adds in hospice expenditures, will be applied to the ACO's historical baseline, risk-standardized and GAF-Adjusted expenditures to trend them forward to be equivalent with performance year expenditures.

The prospective trend rate is calculated separately for each BY relative to the USPCC for the performance year. Each of the 3 BYs is then independently trended forward to the performance year instead of applying the average trend across BYs. The A&D and dialysis-only ESRD USPCC growth trends are applied separately to the historical baseline expenditures for the A&D and ESRD populations of aligned beneficiaries, respectively.

The trend derived from the USPCC figures will be determined preceding each performance year and established at the time of publication of the ACO REACH/KCC Rate Book for the performance year. However, if this adjusted USPCC trend differs by at least 1% from the observed expenditure trend in the ACO REACH National Reference Population (the full population of beneficiaries eligible for alignment to an ACO in ACO REACH), CMS may apply a retrospective trend adjustment to the benchmark that reflects this difference. In addition, CMS may apply a placeholder retrospective trend adjustment to account for significant changes to the USPCC that occur following the release of the relevant Rate Announcement, in order to support payment accuracy during the performance year. The adjusted USPCC trend is set for each performance year using the most current USPCC preceding that performance year. Thus, if the USPCC for a prior year has been altered it is used to set the trend for subsequent performance years.

See **Figure 4.2** (in Section 4.1.5) for a detailed illustration of the application of the prospective trend in the historical baseline calculation.

4.1.4 Geographic Adjustment Factors (GAFs) adjustment

The ACO's trended, risk-standardized baseline expenditure for each BY is also adjusted to reflect the anticipated impact of changes in the regional GAFs applied to payment amounts under the Medicare FFS payment systems. Every county has its own GAF, determined by the regional differences in various factors such as area wage indices. The GAF Adjustment is applied by first multiplying the prospective trend factor by the ACO's regional GAF adjustment to calculate a combined GAF-Adjusted Prospective Trend for each BY. The GAF-Adjusted Prospective trend is then applied to the expenditures by multiplying the Risk-Standardized Baseline Expenditure by the ACO's regional GAF-Adjusted Prospective Trend in each BY.

Figure 4.2 (in Section 4.1.5) illustrates the application of the Geographic Adjustment Factor (GAF) adjustment to standardize the BY baseline expenditure.

[1] More information is available at **https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/FFS-Trends** and **https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Announcements-and-Documents**

4.1.5 Historical Baseline (3-year average)

The ACO's trended, risk-standardized and GAF-adjusted baseline expenditures for each of the 3 BYs are then combined but with more weight placed on the more recent BY. BY1 is weighted 10%, BY2 is weighted 30%, and BY3 is weighted 60%. The result is a weighted 3-year average that serves as the final historical baseline. The calculation is as follows:

$$Historical\ Baseline = (BY_1 \times 10\%) + (BY_2 \times\ 30\%) + (BY_3 \times\ 60\%)$$

If the ACO does not have sufficient claims history to calculate the historical baseline expenditure for any of the three BYs, that BY will not be used in the calculation of the final historical baseline. If the ACO has sufficient claims history for two of the three BYs, CMS will average the historical baseline expenditures for BYs with the more recent BY weighted two-thirds and the less recent BY weighted one-third. If the ACO has sufficient claims history for one of the three BYs, CMS will use only that BY to calculate the historical baseline.

See **Figure 4.2** for an illustration of the 3-year average historical baseline.

Figure 4.2: Historical Baseline Calculation

BLEND	AD	Baseline Experience			
		CY2017	**CY2018**	**CY2019**	**Benchmark**
1.	Total ACO Aligned Beneficiary Claim Payments	$87,856,003.26	$93,375,409.42	$106,794,359.82	
2.	DIVIDED BY: Eligible Months	91,366	94,577	104,671	
3.	EQUALS: Claim-based Expenditure PBPM	$961.58	$987.30	$1,020.29	
4.	DIVIDED BY: ACO Risk Score	1.122	1.115	1.087	
5.	EQUALS: ACO Risk-Standardized Baseline Expenditure	$857.28	$885.75	$938.92	
6.	TIMES: GAF-Adjusted Prospective Trend	1.231	1.191	1.148	
7.	EQUALS: PBPM Historical Rate	$1,055.04	$1,054.82	$1,078.32	$1,068.94

4.1.6 Regional Rate

For claims-aligned and voluntarily-aligned beneficiaries, regional expenditures are also incorporated into the benchmark to account for the ACO's efficiency relative to its region. Separate from the historical baseline, the weighted average of the county rates (or state-level rates for ESRD beneficiaries) based on the ACO REACH/KCC Rate Book (see Section 3.2) are calculated for each ACO in each BY. To incorporate regional expenditures into an ACO's benchmark, the ACO's region includes all

counties in which one or more beneficiaries aligned to the ACO in the baseline period reside, and the weighted average depends on both the county rates and the number of aligned beneficiaries residing in each county in each of the BYs. The regional rate for each BY is also combined with more weight placed on the more recent BY. BY1 is weighted 10%, BY2 is weighted 30%, and BY3 is weighted 60%, resulting in a weighted 3-year average that serves as the final historical regional rate, as illustrated in **Figure 4.3.**

If the ACO does not have sufficient claims history to calculate the historical baseline expenditure for any of the three BYs, that BY will not be used in the calculation of the ACO's historical regional rate either. If the ACO has sufficient claims history for two of the three BYs, CMS averages the regional rate for the BYs with the more recent BY weighted two-thirds and the less recent BY weighted one-third. If the ACO has sufficient claims history for one of the three BYs, CMS uses only that BY to calculate the regional rate.

Figure 4.3: Regional Rate for Claims-Aligned Beneficiaries (Standard ACO)

BLEND	AD	Baseline Experience			
		CY2017	CY2018	CY2019	Benchmark
8.	ACO Regional Rate based on ACO REACH/KCC Rate Book	$1,146.77	$1,143.33	$1,141.39	$1,142.51

4.1.7 Blended Benchmark

CMS blends the regional expenditures (Section 4.1.6) with the ACO's historical baseline expenditures (Section 4.1.5), to determine the blended Performance Year Benchmark. The proportion of the blended benchmark made up of historical baseline expenditures relative to regional expenditures changes over the model performance years, as summarized in **Figures 4.4 and 4.5**.

Figure 4.4: Composition of the Performance Year Blended Benchmark (Claims Aligned)

Performance Year	Claims-Aligned			
	Standard ACOs		New Entrant & High Needs ACOs	
	% of Blended Benchmark Historical Expenditures	% of Blended Benchmark Regional Expenditures	% of Blended Benchmark Historical Expenditures	% of Blended Benchmark Regional Expenditures
PY2021	65%	35%	0%	100%
PY2022	65%	35%	0%	100%
PY2023	60%	40%	0%	100%
PY2024	55%	45%	0%	100%
PY2025	55%	45%	50%	50%
PY2026	55%	45%	50%	50%

Figure 4.5 Composition of the Performance Year Blended Benchmark (Voluntarily Aligned)

Performance Year	Voluntarily-Aligned			
	Standard ACOs		New Entrant & High Needs ACOs	
	% of Blended Benchmark Historical Expenditures	% of Blended Benchmark Regional Expenditures	% of Blended Benchmark Historical Expenditures	% of Blended Benchmark Regional Expenditures
PY2021	0%	100%	0%	100%
PY2022	0%	100%	0%	100%
PY2023	0%	100%	0%	100%
PY2024	0%	100%	0%	100%
PY2025	55%	45%	50%	50%
PY2026	55%	45%	50%	50%

In **Figure 4.7** below, blended benchmark historical expenditures are 55%, the ACO risk-standardized, GAF-adjusted baseline expenditure "PBPM Historical Rate" is $1,068.94, and the ACO Regional Rate based on the ACO REACH/KCC Rate Book is $1,142.51. Thus, the blended benchmark (before applying ceiling/floor) is $1,102.05.

Figure 4.6 FFS USPCC Floor and Ceiling on Blended Benchmark Adjustment

Performance Year	Standard ACO		New Entrant ACO		High Needs ACO	
	Floor	***Ceiling***	***Floor***	***Ceiling***	***Floor***	***Ceiling***
PY2021	-2%	5%	N/A		N/A	
PY2022	-2%	5%				
PY2023	-2%	5%				
PY2024	-2%	5%				
PY2025	-2%	3%	-2%	5%	-2%	9%
PY2026	-2%	3%	-2%	5%	-2%	9%

Furthermore, there are limits on the maximum upward (ceiling) and downward (floor) adjustment that can result from incorporating regional expenditures into the benchmark. The ceiling for incorporating the regional expenditures is a flat dollar amount increase equal to 3% of the adjusted FFS USPCC for the performance year for Standard ACOs. For New Entrant ACOs this ceiling is 5%, and for High Needs ACOs this ceiling is 9%, as summarized in **Figure 4.6**. The floor for incorporating the regional expenditures is a flat dollar amount decrease equal to 2% of the adjusted FFS USPCC for the performance year for all ACO types. These caps are applied for the A&D and the ESRD Benchmarks separately; therefore, it is possible for blending to hit the cap for one category but not the other.

For example, **Figure 4.7** below illustrates that in a hypothetical performance year for a Standard ACO in which the Adjusted FFS USPCC (A&D) estimate is $1,028.80 PBPM, the ceiling for adjustment to the historical benchmark (A&D) would be 3% of that $1,028.80 or $30.86 PBPM, and the maximum floor to the historical benchmark (A&D) would be −2% of that $1,028.80 or −$20.58 PBPM. Because the difference between the blended benchmark and ACO baseline is greater than the ceiling, the ceiling adjustment is applied. The $1,068.94 PBPM Historical benchmark and blended benchmark adjustment ceiling of $30.86 are added together to produce a final blended benchmark of $1,099.80.

Finally, the ACO Regional Rate Baseline Adjustment factor is calculated as the ratio of the blended

benchmark, divided by the weighted average ACO Regional Rate based on the ACO REACH/KCC Rate Book. In **Figure 4.7**, this is illustrated in the $1,099.80 divided by $1,142.51, arriving at an ACO Regional Rate Baseline Adjustment of 0.963. This factor is prospective and does not change during the performance year. It is multiplied by the performance year ACO Regional Rate (based on the ACO REACH/KCC Rate Book), along with the performance year risk score and number of eligible months in the performance year, to arrive at the final Performance Year Benchmark.

In this example, the ACO Regional Rate Baseline Adjustment factor of 0.963 establishes that in the historical period, the blended benchmark is 96.3% of the Regional Rate; this same rate is then applied in the performance year. The Performance Year Benchmark is set at 96.3% of the performance year's Regional Rate. By directly incorporating the regional rate based upon performance year alignment, this approach accounts for any significant changes in the counties where the ACO's aligned population resides over time.

Figure 4.7: Blended Benchmark Calculation (Standard ACO)

BLEND	AD	
7.	EQUALS: PBPM Historical Rate	$1,068.94
8.	ACO Regional Rate based on ACO REACH/KCC Rate Book	$1,142.51
9.	Blend Percentage (% historical)	55%
10.	Blended Benchmark (Before applying ceiling/floor)	$1,102.05
11.	Difference between Blended Benchmark and ACO Baseline	$33.11
12.	Ceiling on Blended Benchmark Adjustment	$30.86
13.	Floor on Blended Benchmark Adjustment	($20.58)
14.	Blended Benchmark	$1,099.80
15.	ACO Regional Rate Baseline Adjustment	0.963

* The proportion of regional expenditures that will be blended with the historical baseline expenditures will change over the course of the ACO REACH Performance Period. See Figures 4.4 and 4.5 for Performance Year Historical and Regional expenditure blended benchmark percentages.

4.1.8 PY Benchmark

The Final Performance Year Benchmark for claims-aligned beneficiaries is calculated in **Figure 4.8.** The ACO Regional Rate, based on the ACO REACH/KCC Rate Book and beneficiaries aligned in the performance year, is multiplied by the ACO Regional Rate Baseline Adjustment, the final performance year risk score, and the number of performance year eligible months, to calculate the total benchmark before discount or quality withhold.

Figure 4.8: PY Benchmark Calculation: Historical Blended Benchmark

Benchmark Expenditure Calculations		Benchmark to which Experience Accrues		
		AD	**ESRD**	**TOTAL**
ACO Benchmark Expenditure				
1.	Historical Blended Benchmark			
2.	Regional Rate	$1,138.24	$8,710.24	
3.	TIMES: ACO Regional Rate Baseline Adjustment	0.963	0.987	
4.	TIMES: Risk Score	1.034	1.089	
5.	TIMES: Eligible Months	32,879	222	
6.	EQUALS: Benchmark before Discount or Quality Withhold	$37,266,372.65	$2,079,229.07	$39,345,601.71

4.2 Benchmark Expenditure for Voluntarily Aligned Beneficiaries

In PY2021 through PY2024, the benchmark for beneficiaries aligned through voluntary alignment is based on the regional rate for those beneficiaries (Rate Book Driven Benchmark). Beginning in PY2025, the benchmark for voluntarily aligned beneficiaries will begin to incorporate historical expenditures (Historical Blended Benchmark). This change in benchmarking approach and baseline period is summarized below in **Figure 4.9**.

Figure 4.9: Benchmark for Voluntarily Aligned and Claims-Aligned Beneficiaries

Performance Year	Benchmark for Claims-Aligned Beneficiaries	Benchmark for Voluntarily Aligned Beneficiaries
PY2021	*Standard ACOs:* Blend of Historical Baseline for CY2017, CY2018, CY2019[1] and CY2021 Regional Rate (Historical Blended Benchmark) *New Entrant/High Needs ACOs:* CY2021 Regional Rate (Rate Book Driven Benchmark)	CY2021 Regional Rate (Rate Book Driven Benchmark)
PY2022	*Standard ACOs:* Blend of Historical Baseline for CY2017, CY2018, CY2019[1] and CY2022 Regional Rate (Historical Blended Benchmark) *New Entrant/High Needs ACOs:* CY2022 Regional Rate (Rate Book Driven Benchmark)	CY2022 Regional Rate (Rate Book Driven Benchmark)
PY2023	*Standard ACOs:* Blend of Historical Baseline for CY2017, CY2018, CY2019[1] and CY2023 Regional Rate (Historical Blended Benchmark) *New Entrant/High Needs ACOs:* CY2023 Regional Rate (Rate Book Driven Benchmark)	CY2023 Regional Rate (Rate Book Driven Benchmark)
PY2024	*Standard ACOs:* Blend of Historical Baseline for CY2017, CY2018, CY2019[1] and CY2024 Regional Rate (Historical Blended Benchmark) *New Entrant/High Needs ACOs:* CY2024 Regional Rate (Rate Book Driven Benchmark)	CY2024 Regional Rate (Rate Book Driven Benchmark)

Performance Year	Benchmark for Claims-Aligned Beneficiaries	Benchmark for Voluntarily Aligned Beneficiaries
PY2025	*Standard ACOs:* Blend of Historical Baseline for CY2017, CY2018, CY2019[1] and CY2025 Regional Rate (Historical Blended Benchmark) *New Entrant/High Needs ACOs:* Blend of Historical Baseline for CY2021, CY2022, CY2023[2] and CY2025 Regional Rate (Historical Blended Benchmark)	Blend of Historical Baseline for CY2021, CY2022, CY2023[3] and CY2025 Regional Rate (Historical Blended Benchmark)
PY2026	*Standard ACOs:* Blend of Historical Baseline for CY2017, CY2018, CY2019[1] and CY2026 Regional Rate (Historical Blended Benchmark) *New Entrant/High Needs ACOs:* Blend of Historical Baseline for CY2022, CY2023, CY2024[4] and CY2026 Regional Rate (Historical Blended Benchmark)	Blend of Historical Baseline for CY2022, CY2023, CY2024[5] and CY2026 Regional Rate (Historical Blended Benchmark)

[1] The historical baseline in PY2021-PY2026 for claims-aligned beneficiaries to a Standard ACO is the blend of the baseline expenditure for beneficiaries that would have been claims-aligned in CY2017, CY2018, and CY2019 based on the performance year Participant Provider list. For High Needs and New Entrant ACOs the benchmark for claims-aligned beneficiaries in PY2021-PY2024 was the CY Regional Rate.

[2] In PY2025, the historical baseline for claims-aligned beneficiaries to New Entrant and High Needs ACOs is a blend of the baseline expenditure that would have been claims aligned in CY2021, CY2022, and CY2023 based on the Performance Year Participant Provider list.

[3] In PY2025, the historical baseline for voluntarily aligned beneficiaries is the average of the baseline expenditure for beneficiaries who were voluntarily aligned in CY2021, CY2022, and CY2023.

[4] In PY2026, the historical baseline for claims-aligned beneficiaries to New Entrant and High Needs ACOs is a blend of the baseline expenditure that would have been claims aligned in CY2022, CY2023, and CY2024 based on the Performance Year Participant Provider list.

[5] In PY2026, the historical baseline for voluntarily aligned beneficiaries is the average of the baseline expenditure for beneficiaries who were voluntarily aligned in CY2022, CY2023, and CY2024.

4.2.1 Benchmark Calculation PY2021–PY2024

Through PY2024, regional expenditures based upon the ACO REACH/KCC Rate Book served as the source for the financial benchmark. The regional payment for voluntarily aligned beneficiaries was a person-month weighted average of the county rates for those voluntarily aligned beneficiaries. The payment for every county in which a voluntarily aligned beneficiary lived was based on the number of eligible beneficiary-months attributed to the ACO multiplied by the ACO REACH/KCC Rate Book value for that county. These county payments were then combined and divided by the total eligible months across all voluntarily aligned beneficiaries to arrive at the voluntarily aligned beneficiary standardized benchmark.

Figure 4.10: Rate Book Driven Benchmark

Benchmark Expenditure Calculations		Benchmark to which Experience Accrues		
		AD	**ESRD**	**TOTAL**
ACO Benchmark Expenditure				
7.	**Rate Book Driven Benchmark**			
8.	Regional Rate	$1,157.57	$0.00	
9.	TIMES: ACO Regional Rate Baseline Adjustment	1.000	1.000	
10.	TIMES: Risk Score	1.076	0.000	
11.	TIMES: Eligible Months	33	0	
12.	EQUALS: Benchmark before Discount or Quality Withhold	$41,092.11	$0.00	$41,092.11

4.2.2 Benchmark Calculation Starting in PY2025

Beginning in PY2025, the benchmark for voluntarily aligned beneficiaries will be calculated similarly to claims-aligned beneficiaries, as a blend between historical baseline and regional rate. However, the approach for voluntarily aligned beneficiaries will still differ slightly from the approach previously described for claims-aligned beneficiaries, in that it uses a different reference population and there is a different baseline period for the voluntarily aligned beneficiaries, as summarized in **Figure 4.9**. For Standard ACO claims-aligned beneficiaries, the baseline period for the historical expenditure component of the benchmark will continue to be 2017–2019. For voluntarily aligned beneficiaries to any ACO type, however, the baseline period for the historical expenditure component of the benchmark in PY2025 is 2021, 2022, 2023 (with BY1 weighted 10%, BY2 weighted 30%, and BY3 weighted 60%) and in PY2026 is 2022, 2023, 2024 (with BY1 weighted 10%, BY2 weighted 30%, and BY3 weighted 60%). The claims used for each of the BYs will come from the beneficiaries voluntarily aligned to that ACO during each of those prior performance years (2021–2023 for PY2025 and 2022–2024 for PY2026).

The historical baseline will be developed from the expenditure incurred in each BY by any beneficiary who was voluntarily aligned to the ACO in that year, regardless of current performance year provider or beneficiary participation. For example, the historical voluntary alignment baseline expenditure for CY2021 is the expenditure incurred by beneficiaries who were voluntarily aligned to the ACO in PY2021/CY2021; the historical voluntary alignment baseline expenditure for CY2022 is the expenditure incurred by beneficiaries who were voluntarily aligned to the ACO in PY2022/CY2022. If the ACO does not have sufficient claims history to calculate the historical baseline expenditure for any of the three BYs, that BY will not be used in the calculation of the ACO's historical baseline or regional rate. If the ACO has sufficient claims history for two of the three BYs, CMS will average the historical baseline and the regional rate for the BYs with the more recent BY weighted two-thirds and the less recent BY weighted one-third. If the ACO has sufficient claims history for one of the three BYs, CMS will use only that BY to calculate the historical baseline and the regional rate. If no BYs have sufficient claims history for beneficiaries who were voluntarily aligned to the ACO in the baseline period, CMS will use the regional expenditures based upon the ACO REACH/KCC Rate Book in calculating the benchmark for voluntarily aligned beneficiaries, as described in 4.2.1. Further, in order for CMS to construct a reliable baseline, Standard and New Entrant ACOs must have 500 or more voluntarily aligned beneficiaries in one of the base years, and High Needs Population ACOs must have 250 or more voluntarily-aligned beneficiaries in one of the base years to receive the blended benchmark. If this beneficiary minimum threshold is not met, the ACOs voluntarily aligned population will receive the regional benchmarking methodology.

4.3 Combined Benchmark

As previously described, up until this point benchmarks have been calculated separately for A&D populations and ESRD populations, and within each of those populations have been calculated separately for claims-aligned and voluntarily aligned beneficiaries. These separate benchmarks are then combined to arrive at a single PBPM target benchmark.

4.3.1 Combined Claims-Aligned and Voluntarily Aligned Benchmarks

First, the claims-aligned and voluntarily aligned benchmarks are combined based on a person-month weighted average of the two benchmarks. Note that claims-aligned and voluntarily aligned benchmarks are combined separately for A&D and for ESRD. These benchmarks can be expressed as PBPM values or can be multiplied by the number of eligible person-months to arrive at aggregate benchmark amounts.

See **Figure 4.11** below for an illustration of the combined benchmark calculation.

4.3.2 Combined A&D and ESRD Benchmark

The aggregate A&D Benchmark and aggregate ESRD Benchmark are then combined to arrive at the total benchmark expenditure. This is calculated based upon a simple sum of the two benchmarks because both are in aggregate dollars.

See **Figure 4.11** for an illustration of the combined benchmark calculation.

Figure 4.11: Combined Benchmark Calculation

Benchmark Expenditure Calculations		**Benchmark to which Experience Accrues**		
		AD	**ESRD**	**TOTAL**
ACO Benchmark Expenditure				
1.	**Historical Blended Benchmark**			
2.	Regional Rate	$1,138.24	$8,710.24	
3.	TIMES: ACO Regional Rate Baseline Adjustment	0.963	0.987	
4.	TIMES: Risk Score	1.034	1.089	
5.	TIMES: Eligible Months	32,879	222	
6.	EQUALS: Benchmark before Discount or Quality Withhold	$37,266,372.65	$2,079,229.07	$39,345,601.71
7.	**Rate Book Driven Benchmark**			
8.	Regional Rate	$1,157.57	$0.00	
9.	TIMES: ACO Regional Rate Baseline Adjustment	1.000	1.000	
10.	TIMES: Risk Score	1.076	0.000	
11.	TIMES: Eligible Months	33	0	
12.	EQUALS: Benchmark before Discount or Quality Withhold	$41,092.11	$0.00	$41,092.11
13.	TIMES: Retrospective Trend Adjustment	1.0000	1.0000	
14.	Benchmark Expenditure for All Aligned Beneficiaries	$37,307,464.76	$2,079,229.07	$39,386,693.83

4.4 Retrospective Trend Adjustment

CMS may apply a placeholder retrospective trend adjustment to account for significant changes to the USPCC that occur following the release of the relevant Rate Announcement, in order to support payment accuracy during the performance year (beginning in PY2023, any placeholder adjustment has only been applied to benchmark updates in Q3 and Q4). The retrospective trend adjustment is described in full detail in the ***ACO REACH Model: Financial Settlement Overview*** operating policy document.

See **Figure 4.14** (in Section 4.8.2) for an illustration of the benchmark expenditure calculation after all adjustments.

4.5 Discount

The discount applied to the total benchmark expenditure is determined by the risk arrangement selected by the ACO (see Section 2.4). For ACOs participating in the Global risk option, there is a 3.5% discount applied to the trended, regionally blended, risk-adjusted benchmark in PY2025 increasing to 4% in PY2026). For Professional ACOs, the Performance Year Benchmark does not include this discount.

See **Figure 4.14** (in Section 4.8.2) for an illustration of the benchmark expenditure calculation after all adjustments.

4.6 Retention Withhold

The retention withhold policy will not be operational going forward given there will not be subsequent new starters in the model.

4.7 Quality Withhold

For both Global and Professional ACOs, from PY2023 through PY2026, a 2% quality withhold is also applied to the total benchmark expenditure for all aligned beneficiaries. This amount is held at risk and can be earned back by the ACO's reporting of and performance on a pre-determined set of quality measures in the performance year.

See **Figure 4.14** (in Section 4.8.2) for an illustration of the benchmark expenditure calculation after all adjustments.

For the first two performance years, CMS applied a 5% quality withhold, with 1% of the quality withhold tied to performance and 4% of the quality withhold tied to reporting. For PY2023 and subsequent performance years, a full 2% quality withhold will be tied to performance, as shown in **Figure 4.12**.

Figure 4.12: Application of Quality Withhold by Performance Year

Performance Year	Pay-for-Performance	Pay-for-Reporting
PY2021	1%	4%
PY2022	1%	4%
PY2023	2%	0%
PY2024	2%	0%
PY2025	2%	0%
PY2026	2%	0%

The details of the quality approach are described in the ***ACO REACH Model: Quality Measurement Methodology*** paper.

4.8 Population Adjustment

Beginning in PY2023 and for subsequent performance years, ACO REACH has applied an additional benchmark adjustment to support whole person health. An illustration of the application of the Population Adjustment is shown in **Figure 4.14** (in Section 4.8.2).

4.8.1 Introduction

The Population Adjustment is intended to help mitigate the disincentive for ACOs to serve historically medically underserved areas by accounting for historically suppressed spending levels for these populations by performing a PBPM benchmark adjustment for each aligned beneficiary. This adjustment will be determined using a composite methodology consisting of community- and beneficiary-level measures of deprivation and will be applied at the ACO level. For 2025, the Population Adjustment will include three measures:

1. The newly developed Community Deprivation Index (CDI), a standardized composite area level measure of deprivation, calculated at the census block group level and ranked in comparison to the nation (in place of the Area Deprivation Index used in 2023 and 2024).
2. Dual Eligibility Status, collected at the beneficiary-month level.
3. Low-Income Subsidy Status, collected at the beneficiary-month level.

CMS continues to explore measures that appropriately identify medically underserved beneficiaries at both the community and individual levels. CMS may elect to incorporate such measures in the Population Adjustment's composite measure in future performance years.

4.8.2 The Community Deprivation Index

The CDI is a factor-weighted composite measure of 18 socioeconomic variables collected from the Census Bureau. To calculate the CDI, each of these 18 variables are collected at the block group level, statistically shrunk to reduce the sampling variation of the census data, standardized to be at the same scale, and then analyzed using principal component analysis to ascertain that variable's relevance in the estimation of deprivation. This analysis is used to compile block-group level deprivation scores, which are percentile ranked relative to the nation such that the resulting index ranges from a score of 1, indicating the lowest level of relative deprivation, to 100, indicating the highest level of relative deprivation.

The CDI expands upon the information provided by the Area Deprivation Index and updates the methodology based on refinements in the ability to identify medically underserved areas of the nation, particularly for medically underserved pockets in high housing cost areas where housing costs do not correlate with the other included socioeconomic variables. For detailed CDI methodology, refer to Appendix C.

4.8.3 Adjustment Calculation

For 2025, the CDI will be used in place of the Area Deprivation Index in the Population Adjustment calculation. The Population Adjustment is calculated using the CDI score of the block group a beneficiary resides in, plus an adjustment for Dual Eligibility and/or Low-Income Subsidy Status. From these three components, a beneficiary-level Population Score will be calculated according to the following equation for every beneficiary *b* and their corresponding geography *g* in the aligned population:

$$Population\ Score_{b,g} = \left(National\ CDI_{bg}\right) + \ (50 \times LIM_b)$$

In the above formula CDI_{bg} is the composite area level deprivation measure score of the block group the beneficiary resided in on their first day of eligibility. LIM_b is a low-income marker comprised of two low-income indicators: Dual Eligibility (DE) and Low-Income Subsidy (LIS). If a beneficiary has been fully

or partially Dual Eligible or deemed eligible for the LIS at any point in the rolling 12-month period immediately preceding the calculation of the Population Adjustment, LIM_b will be equal to 1, else 0. Therefore, the Population Score can range from 1 to 150.

For each beneficiary aligned to a given ACO, a beneficiary-month level benchmark adjustment is calculated based on these scores. This benchmark adjustment is calculated dependent on where each beneficiary's $Population\ Score_b$ falls relative to the total distribution of Population Scores across the aligned population. The percentile, P_X , of a beneficiary's Population Score within the aligned population translates into a corresponding beneficiary-month level benchmark adjustment, as shown in **Figure 4.13**.

Figure 4.13: PBPM Benchmark Adjustment Amount by Population Score Range

Population Score Range	PBPM Adjustment
$Population\ Score_b \geq P_{90}$	$30
$P_{80} \leq Population\ Score_b < P_{90}$	$20
$P_{70} \leq Population\ Score_b < P_{80}$	$10
$P_{30} \leq Population\ Score_b < P_{70}$	$0
$Population\ Score_b < P_{30}$	-$10

Relative to the 2023 Population Adjustment dollar amounts, the above adjustments were chosen to decrease the disincentive for ACOs to align beneficiaries from historically medically underserved areas, increase the number of beneficiaries eligible for upwards adjustment, and limit the downside impact to ACOs with high concentrations of beneficiaries in low-deprivation areas.

For each aligned month for each beneficiary with a score at or above the 90th percentile of Population Scores among the aligned population, CMS will add $30 to the ACO benchmark. For each aligned month for each beneficiary with a score at or above the 80th percentile but below the 90thpercentile, CMS will add $20 to the ACO benchmark. For each aligned month for each beneficiary with a score at or above the 70th percentile but below the 80th, CMS will add $10 to the ACO benchmark. For each aligned month for each beneficiary with a score below the 30th percentile, CMS will deduct $10 from the ACO benchmark.

Figure 4.14: Calculation of Benchmark Expenditure after Population Adjustment

Benchmark Expenditure Calculations 12.		Benchmark to which Experience Accrues		
		AD	ESRD	TOTAL
ACO Benchmark Expenditure				
12.	EQUALS: Benchmark before Discount or Quality Withhold	$41,092.11	$0.00	$41,092.11
13.	TIMES: Retrospective Trend Adjustment	1.0000	1.0000	
14.	Benchmark Expenditure for All Aligned Beneficiaries	$37,307,464.76	$2,079,229.07	$39,386,693.83
15.	LESS: Discount			$0.00
16.	EQUALS: Benchmark Expenditure after Discount			$39,386,693.83
17.	LESS: Quality Withhold			($787,733.88)
18.	PLUS: Earned Quality Withhold			$787,733.88
19.	EQUALS: Benchmark Expenditure after Earned Quality			$39,386,693.83
20.	PLUS: Population Adjustment			$98,466.73
21.	EQUALS: Benchmark Expenditure after Population Adjustment			$$39,485,160.56

Section 5: Financial Settlement

Financial settlement is the process by which CMS determines shared savings or shared losses for an ACO by comparing actual Medicare expenditures in the performance year with the total benchmark expenditure after all adjustments. Medicare expenditures are inclusive of TCC or PCC payments and the advanced payments (after they have been reconciled against actual reductions) paid by CMS to the ACO, as well as FFS claims paid by CMS directly to the Medicare providers and suppliers for Medicare Parts A and B items and services furnished to ACO REACH Beneficiaries.

The ***ACO REACH Model: Financial Settlement Overview*** operating policy document includes detailed illustrations of all financial settlement calculations.

5.1 Risk Mitigation

As described in Section 2.4, there are two different risk-sharing arrangements that determine the portion of savings or losses for which an ACO is at risk.

- Under the Global risk arrangement, the ACO assumes full risk for any savings or losses.
- Under the Professional risk arrangement, the ACO assumes partial risk for any savings or losses.

In addition, there are risk mitigation strategies in ACO REACH, including risk corridors and optional stop-loss reinsurance.

5.1.1 Risk Corridors

Under both Global and Professional options, risk corridors (bands) determine the percentage of the savings retained by the ACO, as shown in **Figure 5.1**. For example, for all savings or losses up to 5% of the Performance Year Benchmark (risk band 1), the ACO in the Professional option is responsible for 50% of savings or losses and CMS is responsible for the remaining 50%. ACOs will be responsible for a progressively smaller portion of additional savings or losses as their savings or losses reach risk bands 2, 3, and 4.

Figure 5.1: ACO REACH Model Risk Corridors: Percentage of Savings/Losses Retained by ACO

	Risk Arrangement			
	Global Option (Full Risk)		Professional Option (Partial Risk)	
Risk Band	% of Benchmark	Savings/Losses Rate[1]	% of Benchmark	Savings/Losses Rate[1]
Corridor 1	Less than 25%	100%	Less than 5%	50%
Corridor 2	25% to 35%	50%	5% to 10%	35%
Corridor 3	35% to 50%	25%	10% to 15%	15%
Corridor 4	More than 50%	10%	More than 15%	5%

[1] Percentage of savings or losses within the corridor retained by the ACO.

5.1.2 Optional Stop-Loss Reinsurance

All ACOs also have the option of participating in a stop-loss reinsurance arrangement, which is designed to reduce the financial uncertainty associated with infrequent but high-cost expenditures for aligned beneficiaries. Stop-loss protects ACOs from financial liability for individual beneficiary expenditures that are above the stop-loss "attachment points" (i.e., dollar thresholds at which stop-loss protection

begins).

The stop-loss attachment points are developed based on expenditure data derived from the ACO REACH National Reference Population of Medicare FFS beneficiaries. Starting in PY2023, the attachment points are based on expenditure residuals, the difference in actual total spending and a predicted spending value, calculated for each beneficiary based on regional spending and beneficiary risk scores.

The stop-loss payout is determined as the expenditure residual which surpasses the attachment point. Stop-loss payouts cover expenditures once the attachment point is surpassed. This residual-based stop-loss effectively insures the ACO against outlier deviations from expected spending. Starting in PY2025, an adjustment will be applied to stop loss payouts at final reconciliation, so that model-wide payouts equal model-wide charges to ensure stop loss reinsurance is budget-neutral.

A PBPM stop-loss "charge" is applied to the ACO's Performance Year Benchmark. This charge is based on the percentage of expenditures above each of the ACO's attachment points in the baseline period. The net impact of stop-loss charges and payouts will impact the total expenditures incurred by the ACO in a performance year, as described in Section 5.4.3. The full details of the stop-loss attachment point calculations are described in the ***ACO REACH Model: Financial Settlement Overview*** operating policy document.

5.2 Timing of Financial Settlement

Provisional Financial Settlement. ACOs have the option for a Provisional Financial Settlement for PY2023-PY2026. The purpose of this option is to provide timely distribution of provisional Shared Savings or repayment of provisional Shared Losses following the end of the performance year. The target for this settlement is within a month after the performance year ends (January 31). The provisional settlement includes claims experience from the full twelve months of the performance year, but does not account for the full claims processing run-out.

Final Financial Settlement. Final Financial Settlement is conducted approximately seven months after the performance year ends for all ACOs for PY2023-PY2026. This settlement includes claims run-out through the end of the first quarter of the calendar year following the performance year, for expenditures incurred in the performance year. Final Financial Settlement is based on risk adjusting the Performance Year Benchmark using the final risk scores for the performance year and then comparing the Performance Year Benchmark with performance year expenditures for aligned beneficiaries to determine Shared Savings or Shared Losses.

The full details of financial settlement are described in the ***ACO REACH Model: Financial Settlement Overview*** operating policy document.

Figure 5.2: Provisional and Final Financial Settlement for PY2023–PY2026

Settlement Details	Provisional Financial Settlement	Final Financial Settlement
Date for Settlement	February 28 of the calendar year following the performance year	July/August of the calendar year following the performance year
Claims Included in Settlement	Performance Year Expenditure incurred through December 31	Performance Year Expenditure incurred through December 31
Claims Run-out	Through December 31 of the performance year	Through March 31 of the calendar year following the performance year
Risk Scores	Interim risk scores for January through December[1]	Final risk scores

[1] CMS will use the most recently available risk scores in Provisional Settlement calculations.

5.3 Total Benchmark Expenditure

As described previously, settlement involves comparing the total benchmark expenditure amount[2] for the ACO with the actual incurred expenditures in the performance year. Section 4, including **Figure 4.12**, describes in detail the methodology for determining the total benchmark expenditure.

5.4 Performance Year Expenditure

The performance year expenditure is the total payment that has been made by Medicare for services provided to ACO-aligned beneficiaries during months in which they were alignment eligible and aligned to the ACO. It is equal to the payments made to the ACO for services within the scope of the capitation Payment (either TCC or PCC) plus the FFS payments made to providers by the Medicare Administrative Contractors, including any reduction in FFS payments made under the APO (after they have been reconciled against actual reductions). Sections 5.4.1 and 5.4.2 provide additional details.

5.4.1 Capitation Payments to ACO

The capitation payment amount is calculated for A&D and ESRD beneficiaries separately and then summed together. The capitation payment amount reflects the final ("true") performance year capitation amount based upon final beneficiary alignment and risk scores. For TCC, this includes final updates to the withhold percentage at the end of the performance year; for PCC, this includes the final Base PCC amount. Enhanced PCC Payments and APO payments are reconciled separately from the Shared Savings Calculations.

For more information, Capitation payment details are provided in the ***ACO REACH Model: Capitation and Advanced Payment Mechanisms*** operating policy document.

5.4.2 Claims-Based Payments

Beneficiaries aligned to an ACO will continue to accrue claims payments outside of the capitation arrangement, and these payments to Participant, Preferred, and non-ACO providers are also included

[2] In PY2025-PY2026, expenditures may also be adjusted for Significant, Anomalous, and Highly Suspect (SAHS) Billing, or the removal of over-the-counter COVID_19 tests during the public health emergency.

in the ACO Performance Period Expenditure[3]. These claims can occur for a number of reasons.

FFS payments to ACO providers participating in the capitation arrangement: ACO providers may continue to receive FFS payments for select services in addition to the capitation payments, depending on the payment arrangement selected. If applicable, these FFS payments will be included in the total cost of care. These could be claims for beneficiaries who had opted out of data sharing or claims related to substance use treatment, for example. Because not all Preferred Providers are required to participate in the capitation arrangement, a larger portion of the expenditures in the example is paid through FFS claims.

FFS payments to ACO providers participating in the APO: For ACO providers who elected to participate in the APO (available only to ACOs electing PCC), those payments must also be included into the total cost of care, after they have been reconciled against actual reductions. The provider claims amounts used to generate the performance period expenditures reflect this reconciliation of APO to actual reductions.

FFS payments to other providers: Payments that were made to other (ACO and non-ACO) providers not participating in the capitation payments or APO are also included in the total cost of care. This includes Preferred Providers who had opted out of the capitation arrangement or had less than a 100% fee reduction and non-ACO providers.

5.4.3 Net Stop-Loss Payout Under Optional Stop-Loss Arrangement

The total cost of care is summed together before any of the optional stop-loss thresholds are applied. ACO's stop-loss payout and charge is based on the blended benchmark with quality withhold added back in, and then multiplied by the ACO's risk score, the beneficiary-months aligned to the ACO, and the agreed upon stop-loss payout rate. A uniform multiplier adjustment will be applied to model wide stop-loss payouts at settlement, ensuring budget neutrality.

The stop-loss reinsurance option is described in Section 5.1.2, and full details including an illustration of the stop-loss attachment point calculations are provided in the ***ACO REACH Model: Financial Settlement Overview*** operating policy document.

5.5 Gross Savings (Losses) and Shared Savings After Application of Risk Corridors

Gross Savings (Losses) are calculated based on the difference between the total benchmark expenditure after the Population Adjustment and the total cost of care after Stop-Loss.

Gross Savings (Losses) have risk corridors applied to arrive at the Shared Savings (Losses). Each ACO participates in either full risk (Global Option) or partial risk (Professional Option) arrangement. Each risk arrangement has unique risk corridors (described in **Figure 5.1**). The Shared Savings received by an ACO, or the Shared Losses for which an ACO is liable, depend on the risk arrangement and the application of the risk corridors.

[3] In PY2025 and PY2026, Medicare providers may participate in both ACO REACH and The Guiding an Improved Dementia Experience (GUIDE) Model. Beginning in PY 2025, certain GUIDE Model payments, such as the Dementia Care Management Payment (DCMP), for overlapping beneficiaries, will contribute to ACOs' expenditures included in the calculation of Shared Savings/Losses. See the ***ACO REACH Model: Capitation and Advanced Payment Mechanisms*** operating policy document for more information.

More information about Gross Savings (Losses), the application of risk corridors, and Shared Savings (Losses) is detailed in the ***ACO REACH Model: Financial Settlement Overview*** operating policy document.

5.6 Total Monies Owed

After the calculation of Shared Savings/Losses is completed, the Total Monies Owed is calculated. At year-end, during provisional and final settlement, CMS will adjust the Final Shared Savings/Losses by the capitation over (under) payment, enhanced PCC repayment, the APO adjustment, and the high-performers pool incentive. Details on the total monies owed calculation are available in the ***ACO REACH Model: Financial Settlement Overview*** operating policy document.

5.6.1 APO Reconciliation

Under the APO, ACO providers may elect to receive reduced FFS payments for non-primary care services. In return, the ACO receives a monthly payment intended to be equal to the amount of the reduction in FFS payments made to providers participating in APO. As part of Final Financial Settlement, the APO payments made to the ACO will be reconciled against the amount of the reduction that was made in FFS payments to the providers electing to participate in the APO. If the reduction in FFS payments to those providers is greater than the APO payment made to the ACO, the difference will be paid to the ACO; if the FFS payment reduction is less than the APO payment made to the ACO, then the difference will be returned to CMS.

Because it is directly reconciled to the actual observed claims reductions, the APO neither decreases nor increases the performance period expenditure and therefore has no impact on the calculation of shared savings (or shared losses). The APO merely affects the timing of cash flows.

Appendix A: Glossary of Terms

ACO Regional Rate

The weighted average of all the county rates (or state-level rates for ESRD beneficiaries) in which one or more beneficiaries aligned to the ACO in the baseline period reside, based on the ACO REACH/KCC Rate Book.

ACO Regional Rate Baseline Adjustment

The ratio of the blended benchmark divided by the weighted average performance year ACO Regional Rate based on the ACO REACH/KCC Rate Book, expressed as the benchmark as a percentage of ACO Regional Rate.

Adjusted FFS USPCC

The adjusted fee-for service (FFS) US per capita cost (USPCC) removes uncompensated care and adds hospice back into FFS expenditures.

Adjusted FFS USPCC Trend

The Adjusted FFS USPCC trend is the performance year adjusted FFS USPCC divided by the baseline year adjusted FFS USPCC, which is applied to express BY expenditures as performance year expenditures.

Benchmark Before Discount or Quality Withhold

The calculated Performance Year Benchmark for an ACO, with performance year risk scores and eligible months, before applying the discount, retention withhold, quality withhold/earn back, or population adjustment.

Blend Percentage

The blend percentage is the percentage of the blended benchmark that is the trended historical baseline expenditures. One minus the blend percentage is the percent that is the ACO Regional Rate based on the ACO REACH/KCC Rate Book.

Blended Benchmark (Before Applying Ceiling or Floor)

The blend of trended historical baseline expenditures and the ACO Regional Rate (based on the ACO REACH/KCC Rate Book), before applying the ceiling or floor on the blend.

Blended Benchmark (After Applying Ceiling or Floor)

The blend of trended historical baseline expenditures and the ACO Regional Rate (based on the ACO REACH/KCC Rate Book), after applying the ceiling or floor on the blend.

Blended Benchmark Ceiling

The limit on the maximum upward adjustment that can result from incorporating regional expenditures into the benchmark, equaling a certain percentage of the adjusted FFS USPCC for the performance year, dependent on ACO type.

Blended Benchmark Floor

The limit on the maximum downward adjustment that can result from incorporating regional expenditures into the benchmark, equaling 2% of the adjusted FFS USPCC for the performance year.

Combined Benchmark

The combined benchmark created by adding the claims-aligned and voluntarily aligned benchmarks for Aged & Disabled (A&D) and End Stage Renal Disease (ESRD) separately and then combining the A&D and ESRD Benchmarks.

Discount

The discount that is applied to the benchmark expenditure before discount or withhold. It is determined by the risk arrangement selected by the ACO; applying only to ACOs that select the Global Option.

FFS USPCC

The FFS USPCC that is developed annually by the CMS Office of the Actuary (OACT).

GAF Adjustment

An adjustment made to the ACO's trended, risk-standardized baseline expenditure for the baseline years to reflect the anticipated impact on county expenditure from differences in the regional Geographic Adjustment Factors (GAFs).

Historical Baseline

The weighted average of the ACO's trended, risk-standardized, and GAF-adjusted baseline expenditure per-beneficiary-per-month (PBPM) for each of the 3 baseline years, with more weight placed on the more recent baseline year (BY1 is weighted 10%, BY2 is weighted 30%, and BY3 is weighted 60%).

Historical Base Year Expenditure

The total Medicare Parts A and B expenditure incurred by beneficiaries who would have been claims-aligned to the ACO in each BY.

Population Adjustment

An adjustment made to the ACO's PY benchmark expenditure intended to help mitigate the disincentive for ACOs to serve historically medically underserved areas by accounting for historically suppressed spending levels for these populations.

Prospective Trend

A factor applied to each of the three BY ACO expenditures, independently trending the expenditure forward to be comparable with performance year expenditure. The trends are applied separately to the historical baseline expenditure for the A&D and ESRD populations.

Quality Withhold

A percentage withhold applied to the total benchmark expenditure for all aligned beneficiaries that is held "at risk" and can be earned back by the ACO's reporting of and performance on a pre-determined set of quality measures in the performance year.

Total Benchmark Expenditure

The total benchmark expenditure amount for all aligned beneficiaries for which an ACO is at risk in a performance year, without consideration of risk mitigation, before application of the discount, retention withhold, quality withhold/earn back, or population adjustment.

Total Benchmark Expenditure after Discount & Retention Withhold

The total benchmark expenditure amount for which an ACO is at risk in a performance year, without consideration of risk mitigation, after application of the discount and retention withhold but before application of the quality withhold/earn back and population adjustment.

Total Benchmark Expenditure after Earned Quality

The total benchmark expenditure amount for which an ACO is at risk in a performance year, without consideration of risk mitigation, after application of the discount, retention withhold, and the quality withhold/earn back but before the application of the population adjustment.

Total Benchmark Expenditure after Population Adjustment

The total benchmark expenditure amount for which an ACO is at risk in a performance year, without consideration of risk mitigation, after application of the discount, retention withhold, quality withhold/earn back, and population adjustment. This is the benchmark compared with expenditures to determine gross savings/losses.

Appendix B: Beneficiary Alignment Procedures

B.1 ACO REACH Beneficiary Alignment Procedures

A beneficiary is aligned to an ACO based on claims-based alignment and/or voluntary alignment. CMS performs claims-based alignment before each performance year for every ACO based on the final Participant Provider list submitted for that performance year. Beneficiaries may voluntarily align through Medicare.gov, known as Medicare Voluntary Alignment (MVA), or through Signed attestation-based Voluntary Alignment (SVA)[4]. CMS incorporates MVA submissions at the start of each performance year. However, SVA is optional and ACOs must choose to participate in the SVA process.

The annual process in which CMS prospectively runs alignment (both claims based and voluntary) prior to a performance year is called "Prospective Alignment" and applies to all ACOs. ACOs will have the option to elect "Prospective Plus Alignment", in which voluntary alignment is performed prospectively before the start of the second, third and fourth calendar quarters of the performance year. **Table B.1.1** shows the alignment process and choices available for ACOs.

Table B.1.1 Alignment Options

Alignment Type	Prospective Alignment	Prospective Plus – Q2	Prospective Plus – Q3	Prospective Plus – Q4
Claims-Based Alignment	Mandatory	N/A	N/A	N/A
Medicare.gov Voluntary Alignment	Mandatory	Optional*	Optional*	Optional*
Signed Attestation-Based Voluntary Alignment	Optional	Optional	Optional	Optional

* Once an ACO elects Prospective Plus Alignment, MVA-aligned beneficiaries will be added each quarter in which they designated their Primary Care Provider on Medicare.gov even if the REACH ACO does not submit any SVA forms for the same quarter.

B.2 Claims-Based Alignment

B.2.1 Definitions

1. Alignment Period

Each performance year (PY) and base year (BY) are associated with an alignment period that consists of two alignment years. The first alignment year for PY2024–PY2026 and for each BY is the 12-month period ending 18 months prior to the start of the relevant performance year or BY, as applicable. The second alignment year is the 12-month period ending 6 months prior to the start of the relevant performance year or BY, as applicable.

Table B.2.1 specifies the alignment years for each performance year and, for a Standard ACO, each of

[4] In the ACO REACH Request for Applications (RFA), Medicare.gov Voluntary Alignment (MVA) and Signed attestation-based Voluntary Alignment (SVA) were referred to as Electronic Voluntary Alignment (EVA) and Paper-based Voluntary Alignment (PVA), respectively.

the relevant BYs.

Table B.2.1 Alignment Years for Each Performance Year and Base Year

Calendar Year	Period Covered	Alignment Year 1	Alignment Year 2
Base Year 1	CY2017	7/1/2014 – 6/30/2015	7/1/2015 – 6/30/2016
Base Year 2	CY2018	7/1/2015 – 6/30/2016	7/1/2016 – 6/30/2017
Base Year 3	CY2019	7/1/2016 – 6/30/2017	7/1/2017 – 6/30/2018
PY2021	April 1, 2021 – December 31, 2021	7/1/2018 – 6/30/2019	7/1/2019 – 6/30/2020
PY2022	CY2022	7/1/2019 – 6/30/2020	7/1/2020 – 6/30/2021
PY2023	CY2023	7/1/2020 – 6/30/2021	7/1/2021 – 6/30/2022
PY2024	CY2024	7/1/2021 – 6/30/2022	7/1/2022 – 6/30/2023
PY2025	CY2025	7/1/2022 – 6/30/2023	7/1/2023 – 6/30/2024
PY2026	CY2026	7/1/2023 – 6/30/2024	7/1/2024 – 6/30/2025

2. Claims-Alignable Beneficiary

The population of "claims-alignable beneficiaries" includes all beneficiaries who had at least one Primary Care Qualified Evaluation and Management (PQEM) service that was paid by Medicare FFS during the alignment period.

3. Alignment-Eligible Beneficiaries

Alignment eligibility is verified on a monthly basis throughout the performance year. The population of alignment-eligible beneficiaries includes all beneficiaries who meet all of the following criteria[5]:

- Is alive;
- Is enrolled in Medicare Parts A and B;
- Is not enrolled in Medicare Advantage or other Medicare managed care plan;
- Does not have Medicare as a secondary payer; and
- Resides in a county that is included in the ACO service area.

For a High Needs Population ACO, a beneficiary must also meet one or more of the following conditions to be considered an alignment-eligible beneficiary (see Section B.5 for more details on eligibility checks for High Needs Population ACOs):

- Have one or more conditions that impair the beneficiary's mobility listed in **Table B.6.1** (for PY2025);
- Have at least one significant chronic or other serious illness (defined as having a risk score of 3.0 or greater for A&D beneficiaries or a risk score of 0.35 or greater for ESRD beneficiaries using the CMS-HCC methodologies);

[5] Criteria for Medicare Part A and B, Medicare Advantage and managed care enrollment are verified on the first day of the month (e.g., January eligibility is determined as of January 1). Medicare as a secondary payer is determined using a 3-month lag (e.g., January eligibility is checked on April 1). In PY2021, service area residence was determined on a 3-month lag as well. In PY2022 and onward, the service area residence is determined on the first of the month with no lag.

- Have a CMS-HCC risk score between 2.0 and 3.0 for A&D beneficiaries (or a risk score between 0.24 and 0.35 for ESRD beneficiaries) and two or more unplanned hospital admissions[6] in the previous 12 months;
- Exhibit signs of frailty, as evidenced by a claim submitted by a provider or supplier specifically for a hospital bed or transfer equipment for use in the home listed in **Table B.6.2** (for PY2025);
- Have qualified for and received skilled nursing and/or rehabilitation services in a SNF for a minimum of 45 days in the previous 12 months as determined by CMS; or
- Have qualified for and received home health services for a minimum of 90 days in the previous 12 months as determined by CMS.

4. Base Years

Base years include: "Base Year One," which is the calendar year that is 4 years before PY2021; "Base Year Two," which is the calendar year that is 3 years before PY2021; and "Base Year Three," which is the calendar year that is 2 years before PY2021. The 3 months immediately following each base year (BY) will be used for claims run-out for that BY.

5. Primary Care Qualified Evaluation and Management (PQEM) Services for Claims-Based Alignment

PQEM Services means a Primary Care Service (furnished by a Primary Care Specialist or a Selected Non-Primary Care Specialist).

6. Primary Care Services

In the case of claims submitted by physicians and non-physician practitioners (NPPs), a Primary Care Service is identified by the Healthcare Common Procedure Coding System (HCPCS) code appearing on the claim line and identified by one of the HCPCS codes listed in **Table B.6.3** (for PY2025).

In the case of claims submitted by a Federally Qualified Health Center (type of bill = 77x) or Rural Health Clinic (type of bill = 71x), all services are considered primary care services.

In the case of claims submitted by a Critical Access Hospital Method 2 (CAH2) (type of bill = 85x), a Primary Care Service is identified by the HCPCS code appearing on the line item claim (for revenue centers 096x, 097x, or 098x) for the service.

7. Primary Care Specialist

A Primary Care Specialist is a physician or NPP whose principal specialty is included in **Table B.6.4** (for PY2025).

A physician or NPP's specialty is determined based on the CMS Specialty Code recorded on the claim unless it is a specialty code for claims submitted from providers at FQHC or RHC. In the case of a claim submitted by a CAH2, the specialty code is determined by the Center for Program Integrity based on the physician's or NPP's primary specialty as recorded in the Medicare Provider Enrollment, Chain, and Ownership System (PECOS). In the case of claims submitted by a Federally Qualified Health Center or Rural Health Clinic, all services are considered to be provided by primary care specialists.

8. Selected Non-Primary Care Specialists

[6] An unplanned hospital admission is defined as the claim for the inpatient stay being coded as non-elective, specifically based on the "reason for admission" code (CLM_IP_ADMSN_TYPE_CD is not 3).

A Selected Non-Primary Care Specialist is a physician or NPP whose principal specialty is included in **Table B.6.5** (for PY2025[6]).

A physician or NPP's specialty is determined based on the CMS Specialty Code recorded on the claim. In the case of a claim submitted by a CAH2, the specialty code is determined by the Center for Program Integrity based on the physician's or NPP's primary specialty as recorded in PECOS. As mentioned above, in the case of claims submitted by a Federally Qualified Health Center or Rural Health Clinic, all services are considered to be provided by primary care specialists.

B.2.2 Claims-Based Alignment Process

1. General

Claims-based alignment of a beneficiary compares the following:

a. The weighted allowable charges for all PQEM Services that the beneficiary received from Participant Providers in each ACO (separately) participating in ACO REACH, and
b. The weighted allowable charges for all PQEM Services that the beneficiary received from each provider or supplier that is not a Participant Provider and identified by a Medicare-enrolled billing Taxpayer Identification Number (TIN).

To match PQEM claims to Participant Providers, CMS will review the following CMS certification number (CCN), TIN, and national provider identifier (NPI) types according to the Medicare claims:

a. Institutional (Part A) Claims: To determine if the provider furnishing PQEM services from a Part A claim is a Participant Provider within the ACO, CMS will check:
   - For FQHC, CAH Method 2, and RHC claims, the CCN from the claim must match the CCN on the ACO's Participant Provider List (irrespective of the rendering provider NPI).
b. Professional (Part B) Claims: To determine if the provider furnishing PQEM services from a Part B claim is a Participant Provider within the ACO, CMS will check that both:
   - the Rendering TIN on the claim matches the Billing TIN on the ACO's Participant Provider List AND
   - the Rendering NPI on claims matches the Individual NPI on the ACO's Participant Provider List.

2. Weighted Allowable Charges

The allowable charge on paid claims for services received during the two alignment years associated with a PY or BY will be used to determine the ACO or other provider or supplier TIN from which the beneficiary received the plurality of PQEM Services.

a. The allowable charge for PQEM Services provided during the first (earlier) alignment year will be weighted by a factor of one-third.
b. The allowable charge for PQEM Services provided during the second (later, or more recent) alignment year will be weighted by a factor of two-thirds.

The allowable charges that are used in alignment will be obtained from claims for PQEM Services that are:

a. Incurred in each alignment year as determined by the date-of-service on the claim line; and
b. Paid within three months following the end of the second alignment year as determined by the effective date of the claim.

3. The Two-Track Algorithm

Alignment for a PY or BY uses a two-track alignment algorithm.

a. *Alignment based on PQEM Services provided by Primary Care Specialists.* If 10% or more of the allowable charges incurred on PQEM Services received by a beneficiary during the two alignment years are furnished by Primary Care Specialists, then beneficiary alignment is based on the allowable charges incurred on PQEM Services furnished by Primary Care Specialists.

b. *Alignment based on Primary Care Services provided by Selected Non-Primary Care Specialists*. If less than 10% of the PQEM Services received by a beneficiary during the two alignment years are furnished by Primary Care Specialists, then beneficiary alignment is based on the PQEM Services furnished by Selected Non-Primary Care Specialists.

4. Tie-Breaker Rules

In the case of a tie in the dollar amount of the weighted allowed charges for PQEM Services, the beneficiary is aligned to the ACO if a Participant Provider has billed the most recent PQEM service for the beneficiary in the alignment period.

5. Alignment to the ACO

Subject to the precedence rules described in B.4, CMS aligns a Beneficiary to the ACO based on claims alignment if CMS determines that (1) the beneficiary is a claims-alignable beneficiary; (2) the beneficiary is an alignment-eligible beneficiary as of January 1 of the PY; (3) the beneficiary received the plurality of their PQEM Services during the two Alignment Years from the ACO's Participant Providers; and (4) the beneficiary is not already aligned to a participant in the Medicare Shared Savings Program or other Medicare value-based initiatives that take precedence over the ACO REACH Model for purposes of beneficiary alignment (see Section B.4.1).

B.3 Voluntary Alignment

B.3.1 Signed Attestation-Based Voluntary Alignment (SVA) Definition

If the ACO elects to participate in SVA Alignment, subject to the precedence rules described in Section B.4, CMS aligns a beneficiary to the ACO based on SVA Alignment if the beneficiary:

1. Is alignment-eligible (as defined in Section B.2.1) as of the effective date of the beneficiary's alignment (e.g., January 1, or the first day of Q2-Q4 for Prospective Plus Alignment); and
2. Has completed a SSVA form designating a Participant Provider as their main doctor, main provider, or the main place they receive care, provided that the designation is valid (see Section B.4.2) and more recent than any other designation made by the beneficiary. Note: although this alignment mechanism is referred to as SVA, electronic forms and signatures are also acceptable.

CMS aligns the beneficiary to the ACO through Signed attestation-based Voluntary Alignment regardless of whether the beneficiary would be aligned to the ACO based on claims alignment.

B.3.2 Medicare.gov Voluntary Alignment (MVA) Definition

Subject to the precedence rules (see Section B.4), CMS will align a beneficiary to an ACO based on MVA Alignment if the beneficiary:

1. Is alignment-eligible (as defined in Section B.2.1) as of the effective date of the beneficiary's alignment (e.g., January 1, or the first day of Q2-Q4 for Prospective Plus Alignment); and
2. Has designated a Participant Provider as their primary clinician through Medicare.gov (or any successor site), provided that the designation is valid (determined in accordance with Section B.4.2) and more recent than any other designation made by the beneficiary.

CMS will align the beneficiary to the ACO through MVA Alignment regardless of whether the beneficiary would be aligned to the ACO based on claims alignment.

B.3.3 Removal of Voluntarily Aligned Beneficiaries

A beneficiary aligned to an ACO for a PY via voluntary alignment only will be removed from alignment to that ACO for purposes of financial settlement for that PY if both of the following are true:

1. The beneficiary hasn't received any covered service from a Participant or Preferred Provider in the ACO where the beneficiary is aligned during the PY;

AND

2. The beneficiary did receive a PQEM service from provider outside their ACO but within the ACO's Service Area during the PY.

Time Period: CMS will perform both parts of this check (for covered services and PQEM services) during the entire 12-month period of the PY (e.g., January 1, 2025 through December 31, 2025).

a. The check will not be limited to the months during the PY that a beneficiary was actively aligned (due to either Prospective Plus Alignment or due to loss of eligibility).
b. The check will disregard the start and end dates for those Participant and Preferred Providers on the final PY2025 Provider List. Therefore, covered services provided during a month that the Participant or Preferred Provider was not participating in the REACH ACO will still count for this check.

Participant or Preferred Providers: To match eligible claims to Participant or Preferred Providers on the PY2025 Provider List, CMS will review the following TIN and national provider identifier (NPI) types according to the claim submitted:

a. Institutional (Part A) Claims: To determine if the provider furnishing services is a Participant or Preferred Provider within the ACO, CMS will check:
   - if the CCN from the claim matches the CCN on the Provider List.
   - if the Billing NPI from the claim matches an Organization NPI on the Provider List.
   - For FQHC, CAH and RHC claims, if the CCN from the claim matches the CCN on the Provider List (irrespective of the rendering provider NPI). This is consistent with the methodology used for claims-based alignment.

b. Professional (Part B) Claims: To determine if the provider furnishing services from a Part B claim is a Participant or Preferred Provider within the ACO, CMS will check:
   - if the Rendering TIN on the claim matches the Billing TIN on the Provider List.
   - if the Rendering NPI on claims matches the Individual NPI on the Provider List.

Covered Services: All Part A and Part B services (excluding durable medical equipment (DME) claims) are considered Covered Services. CMS will review final action claims with allowed charges greater than 0 (for professional, FQHC, CAH and RHC claims) or no non-payment reason codes populated (for all other institutional claims) on the Medicare claim and claim line views of the Medicare database. This will retain only those covered services that were approved for payment. To exclude DME claims, CMS will exclude claim type codes 81, 82 and 72.

PQEM Services: PQEM Services means a Primary Care Service (furnished by a Primary Care Specialist or a Selected Non-Primary Care Specialist).

For PY2025, the list of Primary Care Services can be found in Table B.6.3 of this document and Primary Care Specialists and Selected Non-Primary Care Specialists can be found in Table B.6.4 and Table B.6.5.

Service Area: CMS will determine whether the service was provided within the Service Area by doing the following:

a. For Professional claims: CMS will identify the zip code from the rendering provider claim.
b. For FQHC, RHC, CAH claims, CMS will identify the facility location where care was provided.

B.4 Alignment Precedence Rules

B.4.1 Alignment across models and programs

CMS employs a formal, cross-agency governance structure to execute hierarchical decision making to prevent the alignment of beneficiaries to multiple models involving shared savings or other value-based initiatives and resolve conflicts when they occur. For PY2025, the following initiatives will take precedence over ACO REACH for beneficiary alignment (if applicable): the Maryland Primary Care Program (MD PCP), the Kidney Care Choices (KCC) Model, the Medicare Shared Savings Program (SSP) (Prospective Alignment only), the Primary Care First (PCF) Model, the Vermont All-Payer ACO Model, the Making Care Primary (MCP) Model, and the ACO Primary Care Flex Model (PC Flex).

B.4.2 Alignment within ACO REACH

Once it is determined that a beneficiary will be aligned to ACO REACH per the rules in Section B.4.1, the following rules specific to ACO REACH will apply.

A voluntary alignment attestation (i.e., designation of a Participant Provider as a beneficiary's primary clinician, main doctor, main provider, or the main place they receive care), whether through MVA or SVA, is considered "valid" for a given performance year of the model performance period, if either

1. The designation was made no earlier than 2 years before the start of that performance year; or
2. The Participant Provider designated by the beneficiary has submitted a claim for a PQEM service furnished to the beneficiary in the 24-month period ending one month before the start of that performance year.

Within the ACO REACH Model, the most recent valid voluntary alignment attestation (whether through MVA or SVA) takes precedence over any prior or invalid designations. In addition, during prospective alignment performed prior to the start of the performance year, voluntary alignment takes precedence over claims-based alignment. Note that any voluntary alignment attestation to a provider who is not an ACO Participant will be rejected as invalid, and the beneficiary will not be aligned to the ACO via that attestation. However, it will not preclude a beneficiary from being claims based aligned. For example, if the most recent attestation is to a provider or supplier that is not a Participant Provider or if it is to a participant in another Shared Savings model (through MVA), the beneficiary will not be aligned to the REACH ACO via voluntary alignment but may be aligned via claims-based alignment. Please note that these rules only apply to prospective alignment performed prior to the performance year. During prospective plus alignment which occurs quarterly during the performance year, if the beneficiary is already aligned to a REACH ACO via claims based or voluntary alignment, they will not be removed from alignment or switched to a different ACO if they attest to a provider who is not a Participant provider or to a Participant provider in a different ACO.

If a beneficiary is claims based aligned to an ACO, the beneficiary may also voluntarily align to the same ACO with SVA or MVA. For construction of the financial benchmark, a beneficiary that is claims based aligned and voluntarily aligned will be treated as if they are claims based aligned.

B.4.3 Prospective Plus Alignment Process and Precedence

Before the start of each quarter, CMS compiles a list of beneficiaries who have voluntarily aligned via MVA or SVA and who meet all other beneficiary eligibility criteria. ACOs are responsible for submitting to CMS updated SVA information prior to the start of each quarter to allow for timely updates to these CMS lists (note: CMS will set a deadline prior to each quarter by which updated information is due in order for it to count in the next quarter, which will be roughly one and a half months prior to each quarter). As noted above, only those beneficiaries who were not already aligned to another ACO or an organization participating in another value-based initiative for which beneficiary overlap with ACO REACH is prohibited are aligned to the ACO mid-year under Prospective Plus Alignment. During prospective plus alignment, if the beneficiary is already aligned to a participant provider via claims based or voluntary alignment, they will not be removed from alignment or switch to a different ACO if they attest to a provider who is not a Participant provider or to a Participant provider in a different ACO.

See **Table B.6.6** for a list of initiatives for which beneficiary overlap with ACO REACH is prohibited for PY2025 (and **Table B.6.7** for a list of initiatives for which provider overlap with ACO REACH is prohibited for PY2025).

B.5 High Needs Eligibility

In recognition of how the health of High Needs beneficiaries can deteriorate quickly and that eligibility determinations must be made in a timely manner to provide the necessary support to at-risk beneficiaries when they need it most, CMS confirms High Needs eligibility of beneficiaries on a quarterly basis. Beneficiaries who, barring eligibility, would otherwise be aligned to a High Needs Population ACO either through claims or voluntary alignment have up to four chances to become

eligible each performance year. Once a beneficiary is determined to be eligible, they are aligned starting in the next quarter for the remaining months of the performance year. For example, a newly eligible High Needs beneficiary might be enrolled on January 1, April 1, July 1, or October 1 as applicable (unless the beneficiary does not meet general eligibility requirements in Section B.2.1 or is otherwise retrospectively removed from alignment). Once a beneficiary is aligned to an ACO, that beneficiary is considered High Needs eligible for the remainder of the performance year, even if they cease to meet High Needs eligibility criteria (again, unless they cease to meet general eligibility requirements in Section B.2.1 or are otherwise retrospectively removed from alignment). This is to ensure continuity of care for High Needs beneficiaries and to avoid punishing High Needs Population ACOs for providing effective care.

Table B.5.1 Opportunities within a Performance Year to Meet High Needs Eligibility

Effective date	January 1 of PY	April 1 of PY	July 1 of PY	October 1 of PY
CA[1] prior to PY	Check eligibility	If not eligible for Jan 1, re-check	If not eligible for Apr 1, re-check	If not eligible for July 1, re-check
VA[2] prior to PY	Check eligibility	If not eligible for Jan 1, re-check	If not eligible for Apr 1, re-check	If not eligible for July 1, re-check
VA for April 1[3]		Check eligibility	If not eligible for Apr 1, re-check	If not eligible for July 1, re-check
VA for July 1[3]			Check eligibility	If not eligible for July 1, re-check
VA for October 1[3]				Check eligibility

[1] CA = Claims-Aligned
[2] VA = Voluntarily Aligned
[3] Prospective Plus Alignment

For each quarterly High Needs eligibility check, CMS uses the most recent period (updated quarterly) of claims history available at that time, limiting run-out to the extent possible. To generate risk scores for the eligibility criteria listed above, diagnoses from the most recent 12-month period are run through both the prospective CMS-HCC risk adjustment model and the concurrent CMMI-HCC risk adjustment model, and a beneficiary will be considered eligible if they meet the requirements with either risk score. This allows us to identify High Needs beneficiaries who are both chronically ill and more acutely ill. This 12-month period is also used to check for claims-based eligibility criteria like mobility and unplanned hospitalizations (see Table B.5.2). The most recent 60-month period will be used for the frailty claims-based eligibility criteria, in recognition that DME equipment does not need to be replaced annually (see table B.5.3).

Table B.5.2 Clinical Measurement Periods to Determine High Needs Eligibility (all eligibility criteria except Frailty)

	Lookback Period for Data to Determine High Needs Eligibility			
Effective date	**January 1 of PY**	**April 1 of PY**	**July 1 of PY**	**October 1 of PY**
PY2021 (Apr–Dec 2021)	N/A	12/1/19 – 11/30/20 OR 2/1/20 – 1/31/21	5/1/20 – 4/30/21	8/1/20 – 7/31/21
PY2022 (CY2022)	11/1/20 – 10/31/21	2/1/21 – 1/31/22	5/1/21 – 4/30/22	8/1/21 – 7/31/22
PY2023 (CY2023)	11/1/21 – 10/31/22	2/1/22 – 1/31/23	5/1/22 – 4/30/23	8/1/22 – 7/31/23
PY2024 (CY2024)	11/1/22 – 10/31/23	2/1/23 – 1/31/24	5/1/23 – 4/30/24	8/1/23 – 7/31/24
PY2025 (CY2025)	11/1/23 – 10/31/24	2/1/24 – 1/31/25	5/1/24 – 4/30/25	8/1/24 – 7/31/25
PY2026 (CY2026)	11/1/24 – 10/31/25	2/1/25 – 1/31/26	5/1/25 – 4/30/26	8/1/25 – 7/31/26

Table B.5.3 Clinical Measurement Periods to Determine High Needs Eligibility (Frailty only)

	Lookback Period for Data to Determine High Needs Eligibility			
Effective date	**January 1 of PY**	**April 1 of PY**	**July 1 of PY**	**October 1 of PY**
PY2022 (CY2022)	12/1/16 – 11/30/21	2/1/17 – 1/31/22	5/1/17 – 4/30/22	8/1/17 – 7/31/22
PY2023 (CY2023)	12/1/17 – 11/30/22	2/1/18 – 1/31/23	5/1/18 – 4/30/23	8/1/18 – 7/31/23
PY2024 (CY2024)	12/1/18 – 11/30/23	2/1/19 – 1/31/24	5/1/19 – 4/30/24	8/1/19 – 7/31/24
PY2025 (CY2025)	12/1/19 – 11/30/24	2/1/20 – 1/31/25	5/1/20 – 4/30/25	8/1/20 – 7/31/25
PY2026 (CY2026)	12/1/20 – 11/30/25	2/1/21 – 1/31/26	5/1/21 – 4/30/26	8/1/21 – 7/31/26

B.6 Reference Tables

Tables B.6.1., B.6.2., and B.6.3. can be found in the Excel workbook here:
https://innovation.cms.gov/media/document/aco-reach-fin-op-guide-code-sheet

- Table B.6.1. Mobility Impairment ICD-10 Codes for High Needs Population ACOs
- The following diagnoses for mobility-related conditions are drawn primarily from the list of Other Chronic or Potentially Disabling Conditions in the CMS Chronic Condition Data Warehouse. Per the Chronic Condition Data Warehouse guidelines, one inpatient claim (claim type 60) with a diagnosis from B.6.1. will be sufficient for meeting High Needs Population ACO eligibility or two claims with a HCPCS code from table B.6.2. with different dates of services for any other claim types.
- Table B.6.2. Frailty Codes Used to Determine Eligibility for Alignment to a High Needs Population ACO
- Table B.6.3: Evaluation & Management Services

Table B.6.4. Specialty Codes Used to Identify Primary Care Specialists

Code[1]	Specialty
1	General Practice
8	Family Medicine
11	Internal Medicine
37	Pediatric Medicine
38	Geriatric Medicine
50	Nurse Practitioner
89	Clinical Nurse Specialist
97	Physician Assistant

[1] The Medicare Specialty Code. A cross-walk between Medicare Specialty Codes and the Healthcare Provider Taxonomy is published on the CMS website at **https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/MedicareProviderSupEnroll/Downloads/TaxonomyCrosswalk.pdf**

Table B.6.5. Specialty Codes Used to Identify Selected Non-Primary Care Specialists

Code[1]	Specialty
6	Cardiology
10	Gastroenterology
12	Osteopathic manipulative medicine
13	Neurology
16	Obstetrics/gynecology
17	Hospice and palliative care
23	Sports medicine
25	Physical medicine and rehabilitation
26	Psychiatry
27	Geriatric psychiatry
29	Pulmonology
39	Nephrology
44	Infectious disease
46	Endocrinology
66	Rheumatology
70	Multispecialty clinic or group practice
79	Addiction medicine
82	Hematology
83	Hematology/oncology
84	Preventative medicine
90	Medical oncology
98	Gynecological/oncology
86	Neuropsychiatry

[1] The Medicare Specialty Code. A cross-walk between Medicare Specialty Codes and the Healthcare Provider Taxonomy is published on the CMS website at **https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/MedicareProviderSupEnroll/Downloads/TaxonomyCrosswalk.pdf**

Table B.6.6. Initiatives for which Beneficiary Overlap with ACO REACH is Prohibited

Initiative
Kidney Care Choices Model (KCC)
Medicare Shared Savings Program (MSSP)
Vermont All-Payer ACO Model (VT ACO)
Primary Care First Model (PCF)
Maryland Primary Care Program (MDPCP)
Making Care Primary (MCP)
ACO Primary Care Flex Model (PC Flex)
Another ACO REACH ACO

Table B.6.7. Initiatives for which Provider Overlap with ACO REACH is Prohibited

Initiative	Participant Provider Overlap	Preferred Provider Overlap
Kidney Care Choices Model	Prohibited	Allowed
Medicare Shared Savings Program	Prohibited	Allowed
Vermont All-Payer ACO Model	Prohibited	Allowed
Primary Care First Model	Prohibited	Allowed
Maryland Primary Care Program	Prohibited	Prohibited
Making Care Primary (MCP)	Prohibited	Allowed
ACO Primary Care Flex Model (PC Flex)	Prohibited	Allowed
Another ACO REACH ACO	Prohibited	Allowed

Appendix C: Community Deprivation Index Methodology

C.1 Data

The CDI begins as 18 indicators of socioeconomic status, collected from 2019 5-year panel data produced by the Census Bureau. These variables represent several dimensions, including housing, income, cost of living, and education. This data is represented at the block-group level.

C.1.1 Imputation of Missing Data

Some variables do not have data reported for certain regions. To account for this, CMS imputes missing values according to the following logic: For each variable and region with a missing value, we impute a stand-in value equal to the value within the next highest classification. For instance, a block group with a missing value for a given variable will receive the average value of that variable from the tract. A tract with a missing value for a given variable will receive the average value of that variable from the county.

C.1.2 Variable Margins of Error

The data collected from the Census Bureau is survey data collected on a confidence interval. As such, estimates provided in the Census data are accompanied by corresponding margins of error for those estimates. However, because the majority of the 18 indicators used in the CDI are not single Census variables but instead are combinations of multiple variables, special consideration must be applied to calculate appropriate margins of error for these 18 variables. This is done in line with published Census documentation.[7]

C.2 Construction of the CDI Score

C.2.1 Shrinkage

The data collected from the Census Bureau is survey data collected on a confidence interval. As such, certain observations may be collected with a wide margin of error (MOE) that reduces the reliability of these estimates. To counteract this effect, shrinkage is applied to the estimates of every variable for every block group.

For every variable in every block group z_j, a shrunk version z_j^* is calculated:

$$z_j^* = w_j z_j + (1 - w_j) z$$

[7] https://www2.census.gov/programs-surveys/acs/tech_docs/accuracy/2018_ACS_Accuracy_Document_Worked_Examples.pdf

Where:

$$w_j = \frac{\frac{1}{s_j^2}}{(\frac{1}{s_j^2} + \frac{1}{t^2})}$$

$$t^2 = \frac{1}{k-1}\sum_{j=1}^{k}(z_j - z)^2$$

$$s_j^2 = \left(\frac{m}{1.645}\right)^2$$

$k = number\ of\ block\ groups\ j\ in\ a\ given\ tract$
$z = tract\ level\ estimate$
$m = the\ block\ group\ level\ margin\ of\ error$

C.2.2 Construction of the Raw CDI Score

After the data is imputed and shrunk, Principal Component Analysis (PCA) is run on the data, requiring only one factor as explanatory. Implicitly, PCA standardizes the input data to be at the same scale prior to computing the output coefficients. This analysis produces 18 coefficients that correspond to their respective variables:

Table C.1 CDI Input Variables and PCA Scoring Coefficients

Variable	Scoring Coefficient
12 years of education or less, no diploma, %	0.096
At least a bachelor's degree, %	-0.128
Crowding, %	0.022
FPL 100% (% families)	0.095
FPL 150% (% population)	0.201
Has insurance, %	0.028
Income difference	0.087
Median home value ($)	-0.067
Median household income ($)	-0.160
Median mortgage ($)	-0.096
Median rent ($)	-0.040
No motor vehicle, %	0.036
No plumbing, %	0.013
No Internet, %	0.060
One parent household, %	0.037
Owner occupied, %	-0.054
Unemployed, %	0.017
White collar occupation, %	-0.095

C.2.3 Data Standardization

After the PCA is run, the underlying data must be manually standardized before being multiplied against the above coefficients to arrive at the raw CDI score. Each variable is standardized to have mean 0 and standard deviation 1, to ensure that all data is on the same scale. For a given variable X, a standardized version of the variable $X^{'}$ is calculated where X'_{ij} is the standardized value of the i^{th} variable of the j^{th} block group in the sample, $\overline{X_i}$ is the mean value of the i^{th} variable, and σ_i is the standard deviation of the i^{th} variable, calculated as:

$$X'_{ij} = \frac{X_{ij} - \overline{X_i}}{\sigma_i}$$

C.2.4 Producing the Raw CDI Score

To calculate the raw CDI score, each value for each standardized variable is multiplied by its respective coefficient, and then all values across a block group are summed to create a raw score for each block group:

$$S_j = \sum_{i=1}^{n} X'_{ij} \times C_i$$

Where X_{ij} is the standardized value of the i^{th} variable of the j^{th} block group, and C is a 1-dimensional matrix of coefficients to apply for each variable i.

C.2.5 Producing the CDI Score

Next, the set of all block group scores *S* is re-standardized to have a mean of 100 and standard deviation of 20:

$$S'_{ij} = 100 + 20 \times \frac{S'_j - \bar{S}}{\sigma}$$

Finally, the resultant set is percentile ranked to achieve the final Community Deprivation Index, which is ranked from 1–100.

C.3 Suppression

Due to the unreliability of these values, CDI scores are suppressed for two categories of block groups:

1. High group quarters population: these block groups contain a high percentage of the population living in group quarters, such as university housing, military quarters, or correctional facilities.
2. Excessively low population values: these block groups contain a population of fewer than 100 people or fewer than 30 housing units.