# Medicare Shared Savings Program Shared Savings and Losses and Assignment <br> Methodology Specifications 

Version 3

December 2014

## Contents

Executive Summary ..... 1
Section 1: Introduction ..... 5
Section 2: Medicare Data Used to Calculate Shared Savings and Losses ..... 8
2.1 Data Used in Program ..... 8
2.1.1 Medicare Enrollment Information ..... 8
2.1.2 Claims Data ..... 8
2.2 Acquiring and Processing Program Data ..... 9
Section 3: Beneficiary Assignment for Medicare Shared Savings Program ..... 11
3.1 Assignment Criteria ..... 11
3.2 Programming Steps in Assigning Beneficiaries to ACOs ..... 13
3.3 Special Policy for Processing Method II CAH Claims for Professional Services ..... 16
3.4 Special Rules for Processing FQHC and RHC Claims ..... 17
3.5 Special Rules for Processing ETA Institutional Claims ..... 17
3.6 Tables for Section 3 ..... 18
Section 4: ACO Per Capita Expenditures and Risk Adjustment ..... 25
4.1 Calculating ACO Assigned Beneficiary Expenditures ..... 25
4.2 Annualizing Assigned Beneficiary Expenditures ..... 27
4.3 Truncating Assigned Beneficiary Expenditures and Applying a Completion Factor ..... 28
4.4 ACO Per Capita Expenditures for Assigned Beneficiaries ..... 29
4.5 Risk Adjustment ..... 30
Section 5: Minimum Savings Rate ..... 33
5.1 One-Sided Model ..... 33
5.2 Two-Sided Model ..... 34
Section 6: Shared Savings and Losses Calculations ..... 35
6.1 Calculating 3-Year Average Historical Benchmark ..... 35
6.2 Calculating the Updated Benchmark ..... 36
6.3 Calculating Performance Year 1 Interim and Final Reconciliation for ACOs with 2012 Start Dates ..... 37
6.3.1 Interim Payment Calculation ..... 38
6.3.2 First Year Reconciliation ..... 38
6.4 Annual Financial Reconciliation Calculations-One-Sided Model ..... 40
6.5 Annual Financial Reconciliation Calculations-Two-Sided Model ..... 41
6.6 Repayment Mechanism ..... 42
Section 7: Reports Provided to ACOs ..... 44
List of Abbreviations ..... 45
List of Tables
1 Primary care codes included in beneficiary assignment criteria. ..... 19
2 CMS specialty codes for primary care physicians ..... 21
3 CMS specialty codes included in the definition of a physician (MD/DO only) ..... 22
4 Specialty codes included in the definition of an ACO professional ..... 23
5 Bill types used for identifying method II CAH, FQHC/RHC, and ETA institutional claims ..... 23
$6 \quad$ Variables used in total beneficiary expenditure calculations. ..... 27
7 Minimum Savings Rate by number of assigned beneficiaries (one-sided model). ..... 34
8 Selected characteristics of Shared Savings Program ACO reports ..... 45

| Version | Revision/Change Description | Sections/Figures <br> Affected in <br> Current <br> Version |
| :---: | :--- | :--- |
| 3 | Application of sequestration policy | Executive <br> Summary, 4.1, <br> $6.4,6.5,7$ |
| 3 | Clarification on assignment criterion that <br> beneficiary must live in the United States or U.S. <br> territories and possessions | 3.1 |
| 3 | Clarification on categorization of beneficiaries by <br> Medicare enrollment type | 4.1 |
| 3 | Clarification on Indirect Medical Education (IME) <br> payments, Disproportionate Share Hospital (DSH) <br> payments, and pass-through payments | 4.1 |
| 3 | Updated Table 6 to add claim types | Table 6 |
| 3 | Explanation of risk score renormalization | 4.5 |
| 3 | Clarification on the Minimum Savings Rate (MSR) <br> under the one-sided model when the ACO's <br> number of assigned beneficiaries falls below 5,000. | 5.1 |
| 3 | Added section 6.7, describing the Advance <br> Payment Model and ACO Investment Model | 6.7 |
| 3 | Updated Table 8 to indicate Medicare enrollment <br> type in quarterly reports determined monthly | Table 8 |

Note: Version 3 (December 2014) is the second publicly available version.

## EXECUTIVE SUMMARY

This report describes the specifications for beneficiary assignment and the shared savings and losses calculations under the Medicare Shared Savings Program (Shared Savings Program). Within the Shared Savings Program, we enter into agreements with Accountable Care Organizations (ACOs). We’ll reward ACOs when they're able to lower growth in Medicare Parts A and B fee-for-service costs (relative to their unique target) while, at the same time, they meet performance standards on quality of care. ACOs can choose to participate under a Track 1 shared savings only model (one-sided model) or Track 2 shared savings and losses model (two-sided model). ACOs that choose to become accountable for shared losses under Track 2 will have the opportunity to get a greater portion of shared savings.

## Beneficiary Assignment

The Shared Savings Program uses preliminary prospective beneficiary assignment with final retrospective beneficiary assignment. As described in the final rule, if a beneficiary gets at least one primary care service from a physician within the ACO, the beneficiary may be assigned to the ACO based on a 2-step process:

- The first step assigns a beneficiary to an ACO if the beneficiary receives the plurality of his or her primary care services from primary care physicians within the ACO. We define primary care physicians with 1 of 4 specialty designations: internal medicine, general practice, family practice, and geriatric medicine.
- The second step only considers beneficiaries who have not received a primary care service from a primary care physician, including primary care physicians outside the ACO. Under this second step, we assign a beneficiary to an ACO if the beneficiary receives the plurality of his or her primary care services from other ACO professionals within the ACO, including: non-primary care physicians, nurse practitioners, clinical nurse specialists, and physician assistants.

A plurality means a greater proportion of primary care services as measured in allowed charges within the ACO than from services outside the ACO (such as from other ACOs, individual providers, or provider organizations). The plurality can be less than a majority of total services.

## Establishing and Updating the Benchmark

For each ACO, we'll calculate a benchmark using a risk-adjusted average per capita of Parts A and B expenditures for original Medicare fee-for-service (FFS) beneficiaries. The benchmark includes
beneficiaries who would have been assigned to the ACO in each of the 3 calendar years prior to the start of the agreement period. We trend forward each of the first 2 benchmark year's per capita risk adjusted expenditures to third benchmark year (BY3) dollars based on the national average growth rate in Parts A and B per capita FFS expenditures verified by the CMS Office of the Actuary (OACT). The first benchmark year is weighted $10 \%$, the second benchmark year is weighted $30 \%$, and the third benchmark year is weighted $60 \%$. In creating an updated benchmark we account for changes in beneficiary characteristics and update the benchmark by an OACT-verified projected absolute amount of growth in national per capita expenditures for Parts A and B services under the original fee-for-service program. In trending forward, accounting for changes in beneficiary characteristics, and updating the benchmark, we'll make calculations for populations of beneficiaries in each of the following Medicare enrollment types: ESRD, disabled, aged/dual eligible and aged/non-dual eligible. Further, to minimize variation from catastrophically large claims, we'll truncate an assigned beneficiary's total annual Parts A and B FFS per capita expenditures at a threshold.

## Risk Adjustment

We'll use the CMS-HCC (Hierarchical Condition Category) prospective risk adjustment models to calculate beneficiary risk scores and to adjust the benchmark years used for the historical benchmark. CMS won’t risk-adjust the projected absolute amount of growth in national per capita expenditures for Parts A and B services under the original FFS program used to update the benchmark. We'll add this flat dollar amount of growth to the risk-adjusted benchmark expenditures. Each year we'll adjust the benchmark for changes during the performance period in health status and demographic factors of assigned beneficiaries. An ACO's updated CMS-HCC prospective risk scores will take into account changes in severity and case mix for newly-assigned beneficiaries. We'll use demographic factors to adjust for these changes in severity and case mix for beneficiaries continuously assigned to the ACO's population. However, if the continuously assigned population shows a decline in its CMS-HCC prospective risk scores, we'll lower the risk score for this population.

## Calculating Shared Savings and Losses

CMS will compare the updated historical benchmark to the ACO's assigned beneficiaries' per capita expenditures during the performance year to see whether the ACO may share in savings or losses. The shared savings methodology used under the one- and two-sided models is largely the same. To qualify for shared savings, an ACO must meet or exceed a prescribed Minimum Savings Rate (MSR), meet the minimum quality performance standards, and otherwise maintain eligibility to participate in the Shared Savings Program. ACOs meeting these requirements may share in savings at a rate determined by
their quality performance up to a performance payment limit. The structure and features of the shared losses and shared savings methodologies are similar to each other.

## Shared Savings

Under the one-sided model, ACOs that meet or exceed the MSR will be eligible to share in savings at a rate of up to $50 \%$ based on their quality performance. The one-sided model MSR is a percent of the ACO's updated benchmark calculated on a sliding scale based on the size of its assigned beneficiary population. Savings are calculated as the difference between the updated benchmark and actual expenditures, with savings payments capped at $10 \%$ of total benchmark expenditures each year.

Under the two-sided model, ACOs that meet or exceed the MSR will be eligible to share in savings at a rate of up to $60 \%$ based on their quality performance. The two-sided model MSR is a fixed $2 \%$ of the ACO's updated benchmark. Savings are calculated as the difference between the updated benchmark and actual expenditures, with payments capped at $15 \%$ of total benchmark expenditures each year.

Shared savings payments made through the Medicare Shared Savings Program are subject to the mandatory reductions in federal budgetary resources known as sequestration, required by the Budget Control Act of 2011. Under these mandatory reductions, shared savings payments made to ACOs will be reduced by $2 \%$. When performing ACO financial reconciliation, we will account for the impact of sequestration by adjusting performance year expenditures and the national update amount. This approach ensures that sequestration applies only once to ACO shared savings payments. In determining performance year expenditures for ACOs, we will adjust Part A and B expenditures from April 1, 2013 onward to include the amount of payment withheld due to sequestration. Likewise, the national update amount used to update the historical benchmark also will be adjusted to include the amount of payment withheld due to sequestration.

## Shared Losses

Under the two-sided model, ACOs may also incur a loss if actual expenditures exceed the updated benchmark equal to or greater than the flat $2 \%$ minimum loss rate. An ACO will share losses at a rate of one minus its final sharing rate, with a loss rate not exceeding $60 \%$. An ACO will owe a payment equal to its loss rate multiplied by the difference between its actual expenditures and its updated benchmark. Losses are capped at $5 \%$ of the ACO's updated benchmark in the first performance year under the two-sided model, $7.5 \%$ in the second performance year, and $10 \%$ in the third performance year.

## Repayment Mechanism

ACOs choosing the two-sided model, and ACOs that started in 2012 under the one-sided model and chose to get an interim payment calculation, must show they have a repayment mechanism in place that can repay at least $1 \%$ of its total per capita Medicare FFS Parts A and B expenditures for its assigned beneficiaries based on expenditures used to establish the historical benchmark. CMS will determine whether this repayment mechanism is adequate when looking at an ACO's application to participate in the program. ACOs participating under the program's two-sided model must also show that this repayment mechanism is adequate before the start of each performance year. They must show they can repay at least $1 \%$ of their total per capita Medicare FFS Parts A and B expenditures for their assigned beneficiaries based on expenditures for the most recent performance year.

## Data Sharing/Reports

We'll give ACOs aggregate information on their assigned population and financial performance at the start of the agreement period and quarterly during the course of the performance year, as well as following the conclusion of each performance year.

## SECTION 1: INTRODUCTION

This document is subject to periodic change. Any substantive changes to this document will be noted in a section on revision history.

### 1.1 Statutory Background and Program Context

The Shared Savings Program rewards Accountable Care Organizations (ACOs) that improve the quality and cost efficiency of health care. The Shared Savings Program was mandated by the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010. These public laws are collectively known as the Affordable Care Act. The Affordable Care Act states that the Secretary may enter into an agreement with the ACO to participate in the Shared Savings Program, for a period not less than three years. The Centers for Medicare \& Medicaid Services (CMS) published a notice of proposed rulemaking for the program on April 7, 2011 followed by a public comment period. The final rule was published on November 2, 2011. ${ }^{1}$ This program will reward ACOs that lower growth in health care expenditures while meeting performance standards on quality of care.

### 1.2 Overview of the Shared Savings Program's Financial Models

The Shared Savings Program gives financial incentives to ACOs that proactively coordinate beneficiary care; invest in new care management programs; and redesign care processes to improve the quality, efficiency, and effectiveness of care delivered to Medicare beneficiaries in the fee-for-service (FFS) program. If these investments generate savings for the Medicare program, ACOs may share in a portion of the savings based on financial and quality performance. However, ACOs may also be required to repay Medicare for shared losses. For their first agreement period, ACOs will have an option between 2 tracks. Track 1 ACOs follow a one-sided model for their first agreement period. Track 2 ACOs follow two-sided model for their first agreement period. Although the 2 models share many common features, such as eligibility requirements, quality measures and shared savings methodology, under the two-sided model ACOs are accountable for shared losses but also have the opportunity for a greater percentage of shared savings.

### 1.3 Agreement Period and Benchmark Data

For 2012 only, we accepted applications for start dates on April 1, 2012 (3-year and 9-month agreement period) and July 1, 2012 (3-year and 6-month agreement period) for the Shared Savings

[^0]Program. For all subsequent years, the agreement period start date is January 1, and the term of the agreement is 3 calendar years.

Regardless of an ACO’s start date during 2012, we determined the benchmark based on the 3 calendar years of 2009, 2010, and 2011. The benchmark years remain the same throughout the agreement period. In subsequent agreement periods, the benchmark is based on 3 calendar years immediately preceding the start of the agreement period.

The timeline for those organizations that started in the program on April 1 or July 1, 2012 is:

- Three Benchmark Years: 3 calendar years for January 1, 2009-December 31, 2011
- Performance Year One: April 1 or July 1, 2012-December 31, 2013
- Performance Year Two: January 1, 2014-December 31, 2014
- Performance Year Three: January 1, 2015-December 31, 2015

The timeline for the program for those organizations that started on January 1, 2013 is:

- Three Benchmark Years: 3 calendar years for January 1, 2010-December 31, 2012
- Performance Year 1: January 1, 2013-December 31, 2013
- Performance Year 2: January 1, 2014-December 31, 2014
- Performance Year 3: January 1, 2015-December 31, 2015

The timeline for the program for those organizations that started on January 1, 2014 is:

- Three Benchmark Years: 3 calendar years for January 1, 2011-December 31, 2013
- Performance Year 1: January 1, 2014-December 31, 2014
- Performance Year 2: January 1, 2015-December 31, 2015
- Performance Year 3: January 1, 2016-December 31, 2016

The timeline for the program for those organizations that start on January 1, 2015 is:

- Three Benchmark Years: 3 calendar years for January 1, 2012-December 31, 2014
- Performance Year 1: January 1, 2015-December 31, 2015
- Performance Year 2: January 1, 2016-December 31, 2016
- Performance Year 3: January 1, 2017-December 31, 2017

The subsequent sections of this report describe program procedures and the underlying programming methods in more detail. Section 2 describes the Medicare data files used to calculate shared savings and shared losses. Section 3 explains the method for assigning beneficiaries to an ACO. Section 4 explains how per capita expenditures are calculated and how we use risk adjustment to account for case mix changes from year to year. Section 5 describes the minimum savings rates for the one- and two-sided models. Section 6 gives details on how we calculate shared savings and shared losses. Finally, Section 7 describes aggregate reports provided to ACOs.

## SECTION 2: MEDICARE DATA USED TO CALCULATE SHARED SAVINGS AND LOSSES

This Section describes the Medicare data used to calculate the shared savings and losses for each ACO participating in the program. Acquiring and processing program data for shared savings and losses calculations is discussed in Section 2.2.

### 2.1 Data Used in Program

We primarily use Medicare enrollment information (Section 2.1.1) and claims data (2.1.2) to assign beneficiaries and calculate shared savings and losses for the program.

### 2.1.1 Medicare Enrollment Information

We use Medicare enrollment information for beneficiaries entitled to Medicare, including demographic information, enrollment dates, third party buy-in information, and Medicare managed care enrollment.

### 2.1.2 Claims Data

We use Medicare fee-for-service (FFS) claims data to make benchmark and performance year financial calculations.

Claims have seven components:

- Inpatient
- Outpatient
- Carrier (Physician/Supplier Part B)
- Skilled Nursing Facility (SNF)
- Home Health Agency (HHA)
- Durable Medical Equipment (DME)
- Hospice Claims

Based on historical trends, we expect generally to have between $98 \%$ and $99 \%$ of complete claims data 3 months after the end of the calendar year. CMS will calculate the payment amounts
included in Parts A and B FFS claims using a 3-month claims run-out with a completion factor provided by the CMS Office of the Actuary (OACT). CMS will also use these claims data and other sources to find individually identifiable payments made from the Medicare Trust Funds for beneficiaries under a demonstration, pilot or time limited program, such as care coordination fees.

For reports produced annually, the effective date for all claims is the latest effective date on or before the last day of the claims run out period, and the Integrated Data Repository (IDR) load date is the first load date after that effective date. For quarterly reports, the effective date is the first Friday in the month following the quarter and the IDR load date is the first load date after that effective date.

### 2.2 Acquiring and Processing Program Data

There are many data steps involved in assigning beneficiaries to ACOs and calculating shared savings and losses, including:

- Retrospectively assigning beneficiaries to an ACO in each benchmark year for purposes of establishing the historical benchmark.
- Calculating annualized, truncated, weighted Part A and B FFS per capita expenditures in each benchmark year. ${ }^{2}$
- Applying a completion factor to all benchmark year expenditures.
- Risk-adjusting and trending forward ACO historical benchmark years BY1 and BY2 to benchmark year BY3, and then applying benchmark year weights.
- Retrospectively assigning beneficiaries to an ACO at the end of each performance year for purposes of determining shared savings and losses.
- Annualize and truncate performance year expenditures.
- Apply a completion factor to all performance year expenditures.
- Adjusting the benchmark each year annually for changes in the risk profile of assigned beneficiaries.

[^1]- Updating the benchmark annually based on the flat dollar update amount.
- Determining eligibility for and the amount of shared savings or losses.

Before we can start analyzing the data, claims files used to calculate beneficiary expenditures must accumulate at the CMS data center. Therefore, for each benchmark and performance year in the program, we'll gather and process final program data starting 3 months after the end of the performance year. Note that we'll use a 3-month claims run-out both for benchmark and performance years, to make sure Shared Savings Program financial calculations stay consistent internally. After waiting these 3 months, we'll start the steps to gather and process data for calculating benchmarks or shared savings payments, and OACT will provide a completion factor to estimate the expenditures that would result if claims data were $100 \%$ complete. CMS may use data based on less than a complete 3-month run-out for quarterly and other preliminary reports.

## SECTION 3: BENEFICIARY ASSIGNMENT FOR MEDICARE SHARED SAVINGS PROGRAM

The first step in calculating ACO shared savings or losses is to assign beneficiaries to the ACO. Beneficiary assignment is determined retrospectively at the end of the year for each benchmark and performance year. A beneficiary assigned to an ACO in one year may not have been assigned to that ACO for the preceding years.

In addition to retrospective assignment, prospective (preliminary) assignment is performed for two types of occasions. One is during the pre-screening (or application) phase when applications submitted by potential ACOs are assessed by CMS. The other is for the quarterly reports that are based on the most recent four quarters of claims and eligibility data.

During retrospective assignment for the benchmark and performance year financial reconciliation, the most recent claims are used with a 3-month claims run-out period. For preliminary prospective assignment, the claims are used with, at most, a 7-day claims run-out period. Lists of prospectively assigned beneficiaries are provided to each ACO.

Section 3 describes the steps used for assignment for the Shared Savings Program.

### 3.1 Assignment Criteria

Using Medicare claims, we'll assign beneficiaries to an ACO, in a 2-step process, if they get at least 1 primary care service from a physician within the ACO. For each year, a beneficiary will be assigned to a participating ACO if the following criteria are met:

## A) Beneficiary must have a record of enrollment

Medicare must have enrollment information about the beneficiary's Medicare enrollment status and other information which is needed to determine if the beneficiary meets other criteria below. ${ }^{3}$

## B) Beneficiary must have at least 1 month of Part A and Part B enrollment, and cannot have

 any months of Part A only or Part B only enrollmentBecause the purpose of this program is to align incentives between Part A and Part B, beneficiaries who only have coverage under 1 of these parts are not included.

[^2]C) Beneficiary cannot have any months of Medicare group (private) health plan enrollment

Only beneficiaries enrolled in traditional Medicare FFS under Parts A and B are eligible to be assigned to an ACO participating in the Shared Savings Program. Those enrolled in a group health plan-including beneficiaries enrolled in Medicare Advantage (MA) plans under Part C, eligible organizations under section 1876 of the Social Security Act, and Program of All Inclusive Care for the Elderly (PACE) programs under section 1894—are not eligible.

## D) Beneficiaries will be assigned to only one Medicare shared savings initiative

Beneficiaries can't be assigned to more than 1 Medicare shared savings initiative. For example, beneficiaries can't be assigned to a Shared Savings Program ACO if they're associated with another Medicare shared savings initiative before the start of the Shared Savings Program ACO’s agreement start date. Consequently, we'll also exclude beneficiaries aligned to another Medicare shared savings initiative from each of the benchmark and performance years.

## E) Beneficiary must live in the United States or U.S. territories and possessions

We exclude beneficiaries whose permanent residence is outside the United States or U.S. territories and possessions in the last month of the benchmark or performance year, as they may have gotten care outside of the United States and therefore claims aren't available. If the beneficiary was a U.S. resident in the last month of the benchmark or performance year, we consider the beneficiary to be a U.S. resident for the entire period. United States residence includes the 50 states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the Northern Marianas.

## F) Beneficiary must have a primary care service with a physician at the ACO

To be eligible for assignment to an ACO, a beneficiary must have had at least 1 primary care service furnished by a physician in the participating ACO. The tables below define key terms for the assignment process, such as "primary care service."
G) Beneficiary must have gotten the largest share of his/her primary care services from the participating ACO

If a beneficiary meets the screening criteria in A through F, then the beneficiary is assigned to an ACO in a 2 step process:

Assignment Policy Step (1): We'll assign a beneficiary to a participating ACO when the beneficiary has at least one primary care service furnished by a primary care physician (Table 2) at the
participating ACO, and more primary care services (measured by Medicare allowed charges) furnished by primary care physicians at the participating ACO than from primary care physicians at any other Shared Savings Program ACO or non-ACO individual or group taxpayer identification number (TIN). ${ }^{4}$

Assignment Policy Step (2): This step applies only for beneficiaries who haven't gotten any primary care services from a primary care physician. We'll assign the beneficiary to the participating ACO in this step if the beneficiary got at least 1 primary care service from a physician at the participating ACO, and more primary care services (measured by Medicare allowed charges) from ACO professionals (physician regardless of specialty, nurse practitioner, physician assistant or clinical nurse specialist) at a participating ACO than from any other ACO or non-ACO individual or group TIN.

We'll include TINs from the physician/supplier carrier claims file, and other identifiers discussed below for Federally Qualified Health Centers (FQHCs), Rural Health Clinics (RHCs), Method II Critical Access Hospitals (CAHs), and Electing Teaching Amendment (ETA) hospitals in the assignment algorithm in both Assignment Policy Steps 1 and 2 using claims from the outpatient (institutional) file loaded in the Integrated Data Repository (IDR). Sections 3.3, 3.4, and 3.5 contain details on how these other organization types will be identified in the outpatient claims. These organizations may be either: independent ACOs; a participant in an ACO; or a non-ACO organization. If one of these organizations is an independent ACO (i.e., an ACO with only one participant) or a participant of an ACO that has more than one participant, we'll treat it just like any other ACO participant in the assignment algorithm. If it is part of an ACO, we'll group it with that ACO's other TINs and consider it as part of that ACO just like the TINs for the ACO's other participants. If it is not an ACO participant, we'll include it in the assignment algorithm just like any other non-ACO TIN because it could be the plurality provider of primary care services to a beneficiary, which would preclude assignment of that beneficiary to an ACO. In summary, we perform the assignment process simultaneously including all eligible organizations using both carrier (physician/supplier Part B) and outpatient claims together in each step.

### 3.2 Programming Steps in Assigning Beneficiaries to ACOs

There are 5 programming steps involved in assigning beneficiaries to an ACO:

[^3]Programming Step 1: Identify only those beneficiaries who have a primary care service with a physician at the ACO (3.1 F).

We identify all Part B claims that have at least one line item with a primary care code furnished by an ACO, based on the ACO's TINs (Employer Identification Numbers or Social Security Numbers). We'll use a participating ACO’s TINs to identify beneficiaries who had a Part B claim that includes at least one primary care service furnished by a physician at the ACO within the year-this includes RHC, FQHC, and method II CAH professional services claims, which are Part B claims billed on institutional forms. Note that RHCs, FQHCs, and method II CAHs will be identified on claims by their CMS Certification Number (CCN).

In other words, in programming step 1 we'll identify beneficiaries who, within the year, got at least one primary care service (identified by the Healthcare Common Procedure Coding System (HCPCS) and/or revenue center codes listed in Table 1) from any physician, regardless of specialty, participating in an ACO (all eligible physician specialty codes, including primary care, are listed in Table 3).

## Programming Step 2: Create finder file for beneficiaries identified in Step 1.

We'll create a "finder file" for each ACO of the beneficiaries identified in Programming step 1. The finder file includes the beneficiary identifier for each beneficiary who was furnished at least one primary care service by the ACO's physicians within the year.

## Programming Step 3: Obtain selected claims, enrollment and demographic information for beneficiaries.

We'll use the finder file from step 2 to get enrollment information for each beneficiary who had a primary care service from physicians at the ACO. Eligibility information includes Medicare Parts A and B enrollment, enrollment in a group health plan, primary payer code, and other enrollment information for these beneficiaries. We drop beneficiaries from the finder file who don't meet general eligibility requirements described in Section 3.1.

Programming Step 4: Assign beneficiaries to ACOs using Assignment Policy Step 1 (3.1 G).

We'll use the revised finder file in Step 3 to identify beneficiaries who got at least one primary care service from a primary care physician participating in an ACO during the most recent year. We'll assign beneficiaries who meet this condition to an ACO if the allowed charges for primary care services given to the beneficiary by primary care physicians in the ACO are greater than the allowed charges for
primary care services furnished by primary care physicians in any other ACO, and greater than the allowed charges for primary care services from primary care physicians in each non-ACO individual or group TIN or CCN for FQHC, RHC, or method II CAH, as noted in Sections 3.3 and 3.4 below).

For each ACO, we'll sum allowed charges for primary care services by beneficiary identifier. We include the primary care allowed charges for each beneficiary at each ACO participant (TINs and CCNs) identified as associated with the ACO's organizational ID. ${ }^{5}$ Note that the CCN is used for FQHC, RHC, method II CAH and ETA hospital claims as indicated in Sections 3.3, 3.4, and 3.5 below. We'll sum primary care allowed charges by the "Line HCPCS Code" on Part B and method II CAH claims, and by revenue codes on claims from FQHCs and RHCs. See Table 1 for a list of the primary care HCPCS codes and revenue codes we include in beneficiary assignment. We'll use allowed charges for assignment because, unlike expenditures, they include the Medicare deductible, the first dollars of Medicare Part B payments by a beneficiary within the year (for example, $\$ 147$ in 2014). By using allowed charges rather than a simple service count, we also reduce the likelihood that there would be ties. To determine where a beneficiary got the plurality of his or her primary care services, we compare the allowed charges for each beneficiary for primary care services provided by the ACO (in total for all ACO participants) to the allowed charges for primary care services provided by other ACOs and non-ACO providers.

As stated in the final rule, it's unlikely that allowed charges by 2 different entities would be equal, and the final rule doesn't include a detailed discussion of a tie-breaker method. We have established the following policy in the event of such an occurrence: the tie breaker will be the ACO or non-ACO individual or group TIN or other organizational identifier (for FQHCs, RHCs, method II CAHs and ETA hospitals) that gave the most recent primary care service by a primary care physician. If there's still a tie, then the tie breaker will be the ACO or non-ACO individual or group TIN or other organizational identifier (for FQHCs, RHCs, method II CAHs and ETA hospitals) that gave the most recent primary care service by a physician. If there is still a tie, the beneficiary is randomly assigned.

## Programming Step 5: Apply Assignment Policy Step 2 to beneficiaries who weren't assigned in Assignment Policy Step 1.

This step applies only to beneficiaries who haven't received any primary care services from a primary care physician, within or outside of the ACO. In other words, it applies to beneficiaries in the finder file from step 2 who, after step 4, remain unassigned to any ACO, or non-ACO individual or group

[^4]TIN or FQHC, RHC, method II CAH or ETA hospitals. We'll assign each of these beneficiaries to an ACO if (1) the allowed charges for primary care services given to the beneficiary by all other ACO professionals in the ACO (including non-primary care physicians, nurse practitioners, clinical nurse specialists, and physician assistants) are greater than the allowed charges for primary care services furnished by all ACO professionals in each other ACO, and (2) the allowed charges are greater than the allowed charges for primary care services furnished by non-primary care physicians, nurse practitioners, clinical nurse specialists, and physician assistants in each non-ACO individual or group TIN or FQHC, RHC, method II CAH or ETA hospitals.

Table 3 lists all specialty codes included in the definition of a physician. Note that the definition of a physician for purposes of the Shared Savings Program includes only MD/DO physicians. Table 4 lists specialty codes included in the definition of an ACO Professional.

If there's a tie, the tie breaker will be the ACO that provided the most recent primary care service by a professional. If there is still a tie, the beneficiary is randomly assigned.

### 3.3 Special Policy for Processing Method II CAH Claims for Professional Services

Method II CAH professional services are billed on institutional claim form 1450, bill type 85X, with the presence of one or more of the following revenue center codes: 096x, 097x, and/or 098x. These services require special processing for purposes of the Shared Savings Program. In general, ACOs are identified by TIN(s). However, the TINs for method II CAHs aren’t included in the National Claims History (NCH) and IDR claims files. These CAHs submit line item bills using HCPCS. The rendering physician/practitioner isn't reported for each line item. In addition, unlike for FQHCs and RHCs, no attestation (as required for processing FQHC and RHC claims under Section 3.4 below) is required for CAH services.

- We'll use the CCN as the unique identifier for an individual method II CAH.
- To obtain the rendering physician/practitioner for method II CAH claims, we'll use the "rendering NPI" field. In the event the rendering NPI field is blank, we'll use the "other provider" NPI field. If the other provider NPI field is also blank on a claim, we'll use the attending NPI field.
- We'll use PECOS (the Provider Enrollment, Chain and Ownership System) to get the CMS specialty for method II CAH claims.


### 3.4 Special Rules for Processing FQHC and RHC Claims

FQHC and RHC services are billed on an institutional claim form (see Table 5 for bill types) and require special handling to incorporate them into the beneficiary assignment process. In general, ACO participants are identified through their TIN(s). However, the TINs for FQHCs and RHCs aren't included in the NCH and IDR claims files. Note that the definition of a primary care service or a primary care physician depends on the bill type and date of service.

- A primary care physician is any physician NPI included in an attestation by the FQHC or RHC.
- For FQHCs/RHCs that are participants in an ACO, we'll treat a FQHC or RHC service reported on an institutional claim as a primary care service if the claim includes a HCPCS or revenue center code that meets the definition of a primary care service.
- For FQHCs/RHCs that are NOT participants in an ACO, we'll treat a FQHC or RHC service reported on an institutional claim as a primary care service if the claim includes a HCPCS or revenue center code that meets the definition of a primary care service. That is, for these non-ACO FQHCs and RHCs, we'll assume a primary care physician performed all their primary care services. This will help make sure we don’t disrupt established relationships between beneficiaries and FQHCs/RHCs.
- We'll use the CCN as the unique identifier for an individual FQHC/RHC.

The ACO application includes the CCN, the TIN, and the organizational and individual NPI for the FQHC/RHC providers affiliated with the ACO.

### 3.5 Special Rules for Processing ETA Institutional Claims

ETA hospitals are hospitals that have voluntarily elected to receive payment on a reasonable cost basis for the direct medical and surgical services of their physicians in lieu of Medicare fee schedule payments that might otherwise be made for these services.

ETA institutional claims are identified with claim type code equal to 40 , bill type equal to 13 and require that the CCN on the claim meet the conditions for ETA hospitals. The line item HCPCS codes on the ETA institutional claims are used to identify whether a primary care service was provided. The
reason for this is that physician services provided at ETA hospitals don’t otherwise appear in either outpatient or physician claims. ${ }^{6}$ ETA hospitals, however, do bill CMS to recover facility costs incurred when ETA hospital physicians provide services. The HCPCS code, thus, will provide identification that a primary care service was rendered to a beneficiary. However, we won’t scan revenue center codes. Table 1 lists the HCPCS codes that will be used to identify primary care services for ETA institutional claims, except for 2: G0438 and G0439 are not included in the list of HCPCS codes for ETA hospitals in 2009 and 2010.

- To obtain the rendering physician/practitioner for ETA institutional claims, we'll use the "other provider" NPI field. If this field is blank on a claim, we'll use the attending NPI field.
- We'll use PECOS to obtain the CMS specialty for ETA institutional claims.


### 3.6 Tables for Section 3

- Table 1 lists the primary care codes (HCPCS and Revenue Center Codes) included in beneficiary assignment criteria.
- Table 2 lists specialty codes and other criteria that define a primary care physician. Specialty is identified by the specialty code associated with each line item on a claim.
- Table 3 lists all specialty codes included in the definition of a physician. Note that the definition of a physician for purposes of the Shared Savings Program includes only MD/DO physicians.
- Table 4 lists specialty codes included in the definition of an ACO professional.
- Table 5 lists the bill types for selecting Carrier (Physician/Supplier Part B), method II CAH, FQHC, RHC, and ETA institutional claims.

[^5]Table 1
Primary care codes included in beneficiary assignment criteria

## For services billed under the physician fee schedule (including method II CAHs), and for FQHC services furnished after $\mathbf{1 / 1 / 2 0 1 1}$, primary care services include services identified by the following HCPCS/CPT© ${ }^{7}$ codes:

## Office or Other Outpatient Services

99201 New Patient, brief
99202 New Patient, limited
99203 New Patient, moderate
99204 New Patient, comprehensive
99205 New Patient, extensive
99211 Established Patient, brief
99212 Established Patient, limited
99213 Established Patient, moderate
99214 Established Patient, comprehensive
99215 Established Patient, extensive

## Initial Nursing Facility Care

99304 New or Established Patient, brief
99305 New or Established Patient, moderate
99306 New or Established Patient, comprehensive
Subsequent Nursing Facility Care
99307 New or Established Patient, brief
99308 New or Established Patient, limited
99309 New or Established Patient, comprehensive
99310 New or Established Patient, extensive
Nursing Facility Discharge Services
99315 New or Established Patient, brief
99316 New or Established Patient, comprehensive
Other Nursing Facility Services
99318 New or Established Patient

[^6]Table 1 (continued)
Primary care codes included in beneficiary assignment criteria

Domiciliary, Rest Home, or Custodial Care Services<br>99324 New Patient, brief<br>99325 New Patient, limited<br>99326 New Patient, moderate<br>99327 New Patient, comprehensive<br>99328 New Patient, extensive<br>99334 Established Patient, brief<br>99335 Established Patient, moderate<br>99336 Established Patient, comprehensive<br>99337 Established Patient, extensive<br>\section*{Domiciliary, Rest Home, or Home Care Plan Oversight Services}<br>99339, brief<br>99340, comprehensive<br>\section*{Home Services}<br>99341 New Patient, brief<br>99342 New Patient, limited<br>99343 New Patient, moderate<br>99344 New Patient, comprehensive<br>99345 New Patient, extensive<br>99347 Established Patient, brief<br>99348 Established Patient, moderate<br>99349 Established Patient, comprehensive<br>99350 Established Patient, extensive<br>\section*{Wellness Visits}<br>G0402 Welcome to Medicare visit<br>G0438 Annual wellness visit<br>G0439 Annual wellness visit

For FQHC services furnished prior to $\mathbf{1 / 1 / 2 0 1 1}$, primary care services include services identified by HCPCS code G0402 (effective $\mathbf{1 / 1 / 2 0 0 9 )}$ or the following revenue center codes:

0521 Clinic visit by member to RHC/FQHC
0522 Home visit by RHC/FQHC practitioner
0524 Visit by RHC/FQHC practitioner to a member, in a covered Part A stay at the SNF
0525 Visit by RHC/FQHC practitioner to a member in an SNF (not in a covered Part A stay) or NF or ICF MR or other residential facility

Table 1 (continued)
Primary care codes included in beneficiary assignment criteria

## For RHC services, primary care services include services identified by HCPCS code G0402 (effective $\mathbf{1 / 1 / 2 0 0 9}$ ) or G0438 (effective $\mathbf{1 / 1 / 2 0 1 1 ) , ~ G 0 4 3 9 ~ ( e f f e c t i v e ~} \mathbf{1 / 1 / 2 0 1 1 )}$ ) or the following revenue center codes:

0521 Clinic visit by member to RHC/FQHC
0522 Home visit by RHC/FQHC practitioner
0524 Visit by RHC/FQHC practitioner to a member, in a covered Part A stay at the SNF
0525 Visit by RHC/FQHC practitioner to a member in an SNF (not in a covered Part A stay) or NF or ICF MR or other residential facility

NOTE: 42 CFR Part 425 defines primary care services as the set of services identified by the following HCPCS codes: 99201 through 99215; 99304 through 99340; 99341 through 99350; G0402; G0438; and G0439; Revenue center codes $0521,0522,0524$, and 0525 . Table 1 contains all codes in that range that are currently in use.

Table 2
CMS specialty codes for primary care physicians

## For physician fee schedule based claims (including method II CAHs):

1 General Practice
8 Family Practice
11 Internal Medicine
38 Geriatric Medicine
For claims for either FQHC or RHC services: A primary care physician is any physician NPI included in an attestation by the FQHC or RHC. (For comparison purposes, all such physicians are considered primary care physicians. The specialty code isn't reviewed for these claims because we consider all attested physicians as primary care physicians.)

Table 3
CMS specialty codes included in the definition of a physician (MD/DO only)

| Specialty code | $\quad$ Specialty code name |
| :---: | :--- |
| 01 | General practice |
| 02 | General surgery |
| 03 | Allergy/immunology |
| 04 | Otolaryngology |
| 05 | Anesthesiology |
| 06 | Cardiology |
| 07 | Dermatology |
| 08 | Family practice |
| 09 | Interventional pain management (IPM) (eff. 4/1/2003) |
| 10 | Gastroenterology |
| 11 | Internal medicine |
| 12 | Osteopathic manipulative therapy |
| 13 | Neurology |
| 14 | Neurosurgery |
| 16 | Obstetrics/gynecology |
| 17 | Hospice and palliative care |
| 18 | Ophthalmology |
| 20 | Orthopedic surgery |
| 21 | Cardiac electrophysiology |
| 22 | Pathology |
| 23 | Sports medicine |
| 24 | Plastic and reconstructive surgery |
| 25 | Physical medicine and rehabilitation |
| 26 | Psychiatry |
| 27 | Geriatric psychiatry |
| 28 | Colorectal surgery (formerly proctology) |
| 29 | Pulmonary disease |
| 30 | Diagnostic radiology |
| 33 | Thoracic surgery |
| 34 | Urology |
| 36 | Nuclear medicine |
| 37 | Pediatric medicine |
| 38 | Geriatric medicine |
| 39 | Nephrology |
| 40 | Hand surgery |
| 44 | Infectious disease |
| 46 | Endocrinology (eff. $5 / 1992$ ) |
| 66 | Rheumatology (eff. 5/1992 |
| 70 | Multispecialty clinic or group practice |
|  |  |

Table 3 (continued)
CMS specialty codes included in the definition of a physician (MD/DO only)

| Specialty code | Specialty code name |
| :--- | :--- |
| 72 | Pain management (eff. 1/1/2002) |
| 76 | Peripheral vascular disease (eff. 5/1992) |
| 77 | Vascular surgery (eff. 5/1992) |
| 78 | Cardiac surgery (eff. 5/1992) |
| 79 | Addiction medicine (eff. 5/1992) |
| 81 | Critical care (intensivists) (eff. 5/1992) |
| 82 | Hematology (eff. 5/1992) |
| 83 | Hematology/oncology (eff. 5/1992) |
| 84 | Preventive medicine (eff. 5/1992) |
| 85 | Maxillofacial surgery |
| 86 | Neuropsychiatry (eff. 5/1992) |
| 90 | Medical oncology (eff. 5/1992) |
| 91 | Surgical oncology (eff. 5/1992) |
| 92 | Radiation oncology (eff. 5/1992) |
| 93 | Emergency medicine (eff. 5/1992) |
| 94 | Interventional radiology (eff. 5/1992) |
| 98 | Gynecologist/oncologist (eff. 10/1994) |
| 99 | Unknown physician specialty |
| C0 | Sleep medicine |

Table 4
Specialty codes included in the definition of an ACO professional
(All specialty codes in Table 3 plus the following)

| Specialty code |  | Specialty code name |
| :--- | :--- | :--- |
| 50 | Nurse practitioners |  |
| 89 | Clinical nurse specialist |  |
| 97 | Physician assistant |  |

Table 5
Bill types used for identifying method II CAH, FQHC/RHC, and ETA institutional claims

| Specialty code | Specialty code name |
| :--- | :--- |
| Method II CAH claims | Type of bill 85X with the presence of one or more of the following revenue <br> center codes: 096x, 097x, and/or 098x |
| RHC claims | 71x bill types |
| FQHC claims | 73x (for dates of service prior to 4/1/10) and 77x (for dates of service on or <br> after 4/1/10) <br> 13x bill types (from ETA hospitals) |

## SECTION 4: ACO PER CAPITA EXPENDITURES AND RISK ADJUSTMENT

In this section we'll describe how we'll calculate per capita expenditures and risk scores for a participating ACO. This process starts once we complete beneficiary assignment, as described in Section 3. We perform separate calculations for each benchmark year, quarterly aggregate report, and performance year.

### 4.1 Calculating ACO Assigned Beneficiary Expenditures

After we complete ACO beneficiary assignment, we calculate expenditures for ACO assigned beneficiaries separately for the following populations based on their Medicare enrollment type:

- ESRD—eligibility for Medicare as a result of end stage renal disease
- Disabled—eligibility for Medicare by disability
- Aged/dual eligible Medicare and Medicaid beneficiaries—eligibility for Medicare by age, and eligibility for both Medicare and Medicaid
- Aged/non-dual eligible beneficiaries—eligibility for Medicare by age, but not eligible for Medicaid

We'll allocate eligible beneficiary months to each of these Medicare enrollment types, applying a hierarchy when determining monthly enrollment categories for each beneficiary. We'll use Medicare paid amounts to calculate the ACO's benchmark and performance year expenditures. We'll assign beneficiary expenditures separately in the following hierarchical order of Medicare enrollment type by month: (1) ESRD; (2) Disabled; (3) Aged/dual eligible Medicare and Medicaid beneficiaries; or (4) Aged/non-dual eligible beneficiaries.

The Shared Savings Program identifies ESRD status based on Medicare enrollment/eligibility files. Diagnosis codes on Medicare claims are not used as an indicator of whether or not a beneficiary is entitled to Medicare ESRD status. Beneficiaries who are on short-term dialysis are not defined as ESRD for Medicare eligibility purposes or in the Medicare Shared Savings Program. Additionally, beneficiaries greater than 3 months post-graft are not categorized as ESRD beneficiaries under the Shared Savings Program. This aligns with how Medicare Advantage defines ESRD beneficiaries for purposes of HCC risk adjustment and how the CMS Office of the Actuary defines ESRD beneficiaries.

The Shared Savings Program identifies dually eligible beneficiaries as Qualified Medicare Beneficiaries (QMB), based on their Medicaid benefits and the extent to which Medicaid pays their Medicare premiums, deductibles, and co-insurance. Specifically, dually eligible beneficiaries include QMB-only individuals (referred to as having "partial-benefit") and QMB-Plus individuals (referred to as having "full-benefit"), identified in CMS data systems by dual status codes 01 and 02 respectively. We distinguish between the aged/dual eligible and aged/non-dual eligible populations because our models suggest these populations have significantly different expenditures. However, the ESRD and disabled categories include both dual eligible and non-dual eligible beneficiaries because our models suggest these populations don't have significantly different levels of cost.

## Step 1: Calculate total Medicare expenditures for each beneficiary assigned to the ACO.

For each beneficiary we assign to the ACO, we'll calculate total Medicare Parts A and B FFS expenditures (payments) for Shared Savings Program-eligible months from the Inpatient, SNF, Outpatient, Carrier (Physician/Supplier Part B), DME, HHA, and Hospice claims for each Medicare enrollment type. To calculate total Medicare FFS expenditures for each beneficiary for each Medicare enrollment type, we'll sum expenditures (paid amounts) from all of the beneficiary's Inpatient, SNF, Hospital Outpatient, Carrier (Part B), DME, HHA, and Hospice claims at any provider. We'll exclude denied payments and line items from the calculation.

In determining expenditures for quarterly and annual reports, we'll adjust Part A and B expenditures from April 1, 2013 onward to include the amount of payment withheld due to sequestration. Table 6 contains a list of the variables we'll use to determine the expenditure amount and denied line items or denied claims for the various claims. We'll also include individually identifiable payments made for beneficiaries under a demonstration, pilot or time-limited program (e.g., care coordination payments) in financial reconciliation. We'll remove Indirect Medical Education (IME) payments and Disproportionate Share Hospital (DSH) payments, including uncompensated care payments, from total expenditures. Since Maryland hospitals receive payment outside the inpatient prospective payment system, these hospitals do not directly receive IME and DSH payments from Medicare. Therefore, the Shared Savings Program does not adjust for IME/DSH payments to Maryland hospitals. Pass-through payments are also excluded from expenditures. Pass-through payments include, but are not limited to, graduate medical education, kidney acquisition costs, and bad debt.

In calculating expenditures, we'll allow 3 months after the end of the performance year for claims to run out. We'll apply a completion factor provided by OACT to complete claims to $100 \%$ because generally claims will be approximately $98 \%$ complete at this time. For the quarterly aggregate reports,
we'll use up to a 7-day claims run-out depending on data availability and apply a completion factor we get from OACT.

### 4.2 Annualizing Assigned Beneficiary Expenditures

After we sum an ACO's assigned beneficiaries' expenditures for each Medicare enrollment type, we'll annualize the expenditures by dividing them by the fraction of months in the year each beneficiary was enrolled in each Medicare enrollment type. All further analyses weight the annualized expenditures by this same fraction. Annualization and weighting ensures that payments are correctly adjusted for months of beneficiary eligibility, including new Medicare enrollees and beneficiaries who die, and also enables us to truncate outlier expenditures.

Table 6
Variables used in total beneficiary expenditure calculations

| Expenditure component | Payment is equal to | Claim denied if left justified value is: | Line item denied if: | Through date |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { SNF (Claim type = } \\ & 20,30) \end{aligned}$ | Claim payment amount | Any non-blank value for 'Claim Medicare NonPayment reason code’ | Not applicable | Claim through date |
| Inpatient (Claim type $=60$ ) | Claim payment amount(excluding capital and operating IME and DSH amounts) | Any non-blank value for ‘Claim Medicare NonPayment reason code’ | Not applicable | Claim through date |
| Outpatient (Claim type=40) | Claim payment amount | Any non-blank value for ‘Claim Medicare NonPayment reason code " Claim Billing Facility Type Code in $(4,5)$ | Not applicable | Claim through date |
| Home health (Claim type $=10$ ) | Claim payment amount | Any non-blank value for ‘Claim Medicare NonPayment reason code ‘ Claim Billing Facility Type Code in $(4,5)$ | Not applicable | Claim through date |
| Carrier (physician/ supplier Part B) (Claim type $=71$, 72) | Line NCH payment amount | 'Carrier Claim Payment Denial Code' = 0' or D' through Y' | Line processing indicator code $\neq$ A, R, or S | Line latest expense date |
| DME (Claim type $=81,82)$ | Line NCH payment amount | 'Carrier Claim Payment Denial Code' $=0$ ' or $\mathrm{D}^{\prime}$ through Y' | Line processing indicator code $\neq$ A, R, or S | Line latest expense date |
| Hospice (Claim type $=50$ ) | Claim payment amount | Any non-blank value for 'Claim Medicare NonPayment reason code’ | Not applicable | Claim through date |

NOTE: You can find details on variables at the Research Data Assistance Center website, http://www.resdac.org/.

## Step 2: Calculate the fraction of the year that each assigned beneficiary is enrolled in Medicare in each Medicare enrollment type.

In this step, we calculate the number of months the beneficiary was enrolled in Medicare Parts A and B for each Medicare enrollment type. A beneficiary is enrolled in Medicare Parts A and B when the Medicare entitlement/Buy-in Indicator for the month in the Medicare enrollment files is equal to 3 (3=Medicare Parts A and B both) or C ( $\mathrm{C}=$ Medicare Parts A and B, and State Buy-In). We'll then take the number of months the beneficiary is enrolled in each Medicare enrollment type and divide it by 12 (the number of months in a calendar year). We'll use this fraction to annualize beneficiary expenditures in the next step. When we sum the fraction of the year enrolled in Medicare for all the beneficiaries assigned to the ACO, the result is the total "person years" for the ACO's assigned beneficiaries within the year. Person years are used to calculate the ACO's shared savings or losses.

## Step 3: Calculate annualized expenditures.

We'll calculate annualized expenditures for each beneficiary assigned to the ACO for their Shared Savings Program-eligible months in each Medicare enrollment type. To annualize a beneficiary's expenditures, we'll divide the total expenditures in the applicable months by the fraction of the year the beneficiary is enrolled in each Medicare enrollment type.

### 4.3 Truncating Assigned Beneficiary Expenditures and Applying a Completion Factor

## Step 4: Truncate annualized expenditures and apply completion factor.

We'll then truncate all annualized expenditures by setting those expenditures greater than a threshold equal to the threshold. We'll do this to prevent a small number of extremely costly beneficiaries from significantly affecting the ACO's per capita expenditures. For all beneficiaries, the threshold will be the national unweighted 99th percentile of annualized expenditures by Medicare enrollment type, verified by OACT. The 99th percentile for ESRD beneficiaries is typically much higher than that of aged and disabled beneficiaries.

Similarly, we'll truncate all annualized negative expenditures. A negative payment amount may occur in two situations: when a beneficiary is charged the full Medicare deductible during a short inpatient stay and the deductible exceeds the amount Medicare pays, or when a beneficiary is charged a coinsurance amount during a long stay and the coinsurance amount plus deductible exceeds the amount Medicare pays. For a relatively low weight DRG, the deductible plus coinsurance can exceed the Medicare DRG payment amount. Medicare records the payment as a negative number on the claim and
deducts the amount from the provider payment at the time it is sent. The beneficiary does not receive the excess. Negative annualized expenditures will be truncated at the negative of the applicable truncation threshold (i.e. the negative of the national un-weighted 99th percentile of annualized expenditures).

We'll truncate annualized expenditures and annualized negative expenditures at the 99th percentile of FFS per capita expenditures for the applicable enrollment type (ESRD, disabled, aged/dual eligible, and aged/non-dual eligible).

Once expenditures are annualized and truncated, the appropriate completion factor is applied to expenditures. For example, if an aged/dual beneficiary had annualized expenditures of \$20,000 in 2013, then after adjustment for the completion factor with 3-month run out it would be $(\$ 20,000) *(1.013)=$ $\$ 20,260$. To take another example, if an aged/dual beneficiary had annualized expenditures of $\$ 200,000$ in 2013, then since the 2013 applicable nominal expenditure truncation threshold for the aged/dual population is $\$ 163,780.92$, the beneficiary's truncated expenditures would be $\$ 163,780.92$. Then after adjustment for the completion factor with 3-month run out, the effective expenditure truncation threshold would be $(\$ 163,780.92) *(1.013)=\$ 165,910.07$.

OACT calculates the nominal annualized expenditure truncation thresholds based on uncompleted claims. To be consistent for the annualized expenditures, the uncompleted claims are truncated, and then the truncated claims are completed.

### 4.4 ACO Per Capita Expenditures for Assigned Beneficiaries

Once we have annualized and truncated expenditures for each assigned beneficiary's months in each Medicare enrollment type, we calculate weighted mean annualized expenditures. This yields per capita expenditures for the ACO for each Medicare enrollment type. As described in step 5 below, we'll weight ACO per capita expenditures for each Medicare enrollment type by the fraction of the year the beneficiary is enrolled in Medicare in each enrollment type, so beneficiaries for whom we have less than a year's worth of expenditures don't contribute equally to ACO per capita expenditures as beneficiaries for whom we do have a full year of expenditure data.

Step 5: Calculate weighted average of truncated annualized expenditures for the ACO by Medicare enrollment type, weighting by the fraction of the year that each beneficiary is enrolled in Medicare enrollment type.

We'll calculate the per capita expenditures for the ACO according to the following methodology. We use truncated annualized Medicare expenditures as determined in steps 3 and 4 for each beneficiary
for their Shared Savings Program-eligible months in each Medicare enrollment type and multiply by each beneficiary's fraction of the year enrolled in each Medicare enrollment type. For example, we would assign a value of $\$ 1,250$ to a disabled beneficiary with $\$ 2,500$ annualized expenditures enrolled in Medicare on the basis of disability for 6 months. We calculate this value across all beneficiaries in the disabled population assigned to the ACO, and then sum all these values and divide by the total number of person years in the disabled population assigned to the ACO. The beneficiary above would count as half of a person year for purposes of this calculation. We'll use these ACO per capita expenditures to calculate shared savings and losses.

### 4.5 Risk Adjustment

When establishing the historical benchmark, we'll use the CMS-HCC prospective risk adjustment model to calculate beneficiary risk scores, to adjust for changes in the health status of the population assigned to the ACO. These adjustments will account for changes in case mix between the first and third benchmark years and between the second and third benchmark years. CMS maintains the CMS-HCC prospective risk adjustment models for the Medicare Advantage (MA) program. CMS calculates CMSHCC risk scores for all Medicare beneficiaries, including FFS beneficiaries. CMS uses separate models for Aged/Disabled beneficiary subpopulations, including models for community-residing beneficiaries, long-term institutional beneficiaries, new Medicare enrollees, and functioning graft (post-kidneytransplant) beneficiaries. CMS also uses separate models for ESRD beneficiary subpopulations, including models for dialysis beneficiaries and kidney transplant beneficiaries. For the benchmark and performance years we'll apply the MA risk adjustment model that exists for the current applicable year. We'll remove the MA coding intensity adjustment in the applicable years. Risk scores will be normalized by Medicare enrollment type for each year to ensure that the mean national FFS risk score equals 1.0. This adjustment ensures consistency in the FFS risk score year to year. Note also that data used for the quarterly reports will not be risk-adjusted.

A "newly assigned" beneficiary is a beneficiary assigned in the current performance year who was neither assigned to nor got a primary care service from any of the ACO's participants during the most recent prior calendar year. A "continuously assigned" beneficiary is one assigned to the ACO in the current performance year who was either assigned to or got a primary care service from any of the ACO's participants during the most recent prior calendar year. We'll categorize beneficiaries as ESRD, disabled, aged/dual eligible and aged/non-dual eligible based on eligibility on a monthly basis. In each performance year, we'll adjust the ACO's benchmark to account for changes in health status and demographic factors for newly assigned beneficiaries, and for continuously assigned beneficiaries. We’ll
make these adjustments separately for each Medicare enrollment type. We'll restate the ACO's updated benchmark in the appropriate performance year risk to recognize changes in the level of risk among the ACO’s assigned beneficiaries.

For each performance year and for purposes of computing interim payments in performance year one for ACOs that started in 2012, we'll use separate methodologies to risk-adjust the benchmark for newly assigned and continuously assigned beneficiaries. For newly assigned beneficiaries we'll recalculate the ACO's CMS-HCC prospective risk scores to adjust for changes in severity and case mix arising from this population's risk scores. The MA coding intensity adjustment will be removed in the applicable years. The risk scores will be renormalized by Medicare enrollment type for each year to ensure that the mean national FFS risk score equals 1.0. We'll use demographic factors to adjust for changes in severity and case mix for beneficiaries continuously assigned to the ACO's population. We'll renormalize demographic risk scores by Medicare enrollment type for each year to ensure that the mean national FFS risk score equals 1.0. However, if the continuously assigned population shows a decline in its CMS-HCC prospective risk scores, we'll lower the risk score for this population.

For the ACO's continuously assigned beneficiaries we'll recalculate:

## 1. CMS-HCC prospective risk scores, and

## 2. Demographic scores

We'll then determine whether a prospective HCC or demographic risk adjustment will be used for the continuously assigned population at the aggregate level (rather than within each Medicare enrollment type). To do this we'll compare risk ratios for each continuously assigned beneficiary population in each Medicare enrollment type based on their CMS-HCC scores and demographic risk scores for the performance interval relative to Benchmark Year 3 (BY3). We’ll weight the risk ratios for each Medicare enrollment type relative to their respective person years and per capita benchmark dollars to obtain an overall dollar weighted average risk ratio. If the overall risk ratio is less than one, thereby indicating the average HCC score for the continuously assigned beneficiaries has fallen relative to BY3, we apply HCC ratios to the continuously assigned population within each Medicare enrollment type. Alternatively, if the overall risk ratio is greater-than-or-equal-to one, then the demographic ratios are applied to the continuously assigned population within each Medicare enrollment type.

We'll then update the ACO's historical benchmark risk scores for the continuously and newly assigned populations within each Medicare enrollment type based on the ratio of HCC or a combination of HCC and demographic scores in the performance period relative to BY3.

On a year-to-year basis, this risk adjustment methodology would account for changes in total risk due to beneficiaries who are assigned in the prior year but who aren't assigned in the current performance year (patients who leave the ACO or "leavers"). However, we’ll monitor HCC scores for leavers, to see if we notice a trend in how the health status changes for this population.

## SECTION 5: MINIMUM SAVINGS RATE

Under both the one-sided and two-sided model of the Shared Savings Program, ACOs must meet or exceed a minimum savings rate (MSR) to get a shared savings payment.

The MSR is designed to provide a level of confidence that Medicare is rewarding true cost savings (efficiency) on the part of the ACO rather than paying for normal expenditure fluctuations. There's "normal" variation in the incidence and severity of illness in patient populations, so there's variation in medical expenditures. Variation in annual per capita medical care expenditures (claims costs) for the patients assigned to an ACO creates uncertainty in determining savings. The question then arises as to whether observed (measured) savings are the result of the ACO, or the result of normal fluctuations in medical expenditures for the assigned beneficiary population.

As described in this section, the MSR reflects a percent of the ACO's updated benchmark.

### 5.1 One-Sided Model (Track 1)

Under the one-sided model, we'll base an ACO's MSR on the ACO's number of assigned beneficiaries in the performance year. Table 7 shows the MSR as a function of the number of beneficiaries annually assigned to the ACO. For example, the minimum (floor) MSR is set at $2 \%$ for ACOs with 60,000 or more beneficiaries and the MSR is set at $3.9 \%$ for ACOs with 5,000 beneficiaries.

MSRs which are in between the stated endpoints are calculated by the below specified equation, which is a weighted average of the stated endpoints in Table 7. For example, if an ACO has 5,333 beneficiaries, its MSR would be 3.8\%:

$$
3.9 \% \text { x }(5,999-5,333) /(5,999-5,000)+3.6 \% \times(5,333-5,000) /(5,999-5,000)
$$

Table 7
Minimum Savings Rate by number of assigned beneficiaries (one-sided model)

| Number beneficiaries | MSR (low end of assigned <br> beneficiaries) | MSR (high end of assigned <br> beneficiaries) |
| :---: | :---: | :---: |
| $5,000-5,999$ | $3.9 \%$ | $3.6 \%$ |
| $6,000-6,999$ | $3.6 \%$ | $3.4 \%$ |
| $7,000-7,999$ | $3.4 \%$ | $3.2 \%$ |
| $8,000-8,999$ | $3.2 \%$ | $3.1 \%$ |
| $9,000-9,999$ | $3.1 \%$ | $3.0 \%$ |
| $10,000-14,999$ | $3.0 \%$ | $2.7 \%$ |
| $15,000-19,999$ | $2.7 \%$ | $2.5 \%$ |
| $20,000-49,999$ | $2.5 \%$ | $2.2 \%$ |
| $50,000-59,999$ | $2.2 \%$ | $2.0 \%$ |
| $60,000+$ | $2.0 \%$ | $2.0 \%$ |

If an ACO's number of retrospectively assigned beneficiaries used for performance year reconciliation falls below 5,000, the ACO's MSR will be set to a level consistent with the number of assigned beneficiaries (as specified under the program's regulation at 42 C.F.R 425.110); in these cases the ACO's MSR will be increased above $3.9 \%$, based on its number of assigned beneficiaries.

### 5.2 Two-Sided Model (Track 2)

A flat 2\% MSR and minimum loss rate (MLR) applies to all ACOs participating under the program's two-sided model.

## SECTION 6: SHARED SAVINGS AND LOSSES CALCULATIONS

This section describes how we'll calculate an ACO's initial benchmark, updated benchmark, performance year expenditures, and annual ACO shared savings and shared losses during a Shared Savings Program agreement period. Sections 6.1 and 6.2, which discuss the methodology for determining the initial benchmark and updated benchmark, apply to both the one-sided and two-sided models. As a reminder, we use "PY1, PY2, and PY3" for the first 3 performance years of the Shared Savings Program. We use "BY1, BY2, and BY3" for the 3 years we use to calculate the ACO's initial benchmark and updated benchmark for each performance year during the agreement period. Section 6 will focus on the calculation of the 3-year average benchmark expenditures, PY1-PY3 updated benchmarks, and PY1-PY3 shared savings and losses.

### 6.1 Calculating 3-Year Average Historical Benchmark

The first step in calculating annual shared savings and losses for a performance year is to calculate the 3-year historical average benchmark expenditures for assigned beneficiaries, according to the steps in Sections 4.1-4.5.

First, we calculate the ACO’s BY1-BY3 assigned beneficiary annualized per capita expenditures for the ESRD, disabled, aged/dual eligible and aged/non-dual eligible populations by summing Parts A and B FFS expenditures for months in each Medicare enrollment type and dividing by the fraction of the year in the Medicare enrollment type. As noted in Section 2.1.2, we'll include individually identifiable payments from the Medicare Trust Funds made for beneficiaries under a demonstration, pilot or time limited program, such as care coordination fees, in the ACO's benchmark. As noted in Section 4.3, we'll truncate expenditures at the national unweighted 99th percentile of annualized expenditures.

We'll trend forward the per capita dollars of expenditures for beneficiaries assigned in the first and second benchmark years BY1 and BY2 to BY3 dollars based on the national average growth rate in Parts A and B fee-for-service expenditures verified by OACT. We'll identify the OACT national FFS expenditures by ESRD, disabled, aged/dual eligible and aged/non-dual eligible populations and will calculate separate growth factors for each Medicare enrollment type.

Second, to risk-adjust the benchmark expenditures, we'll obtain the mean FFS normalized CMSHCC risk scores for the ESRD, disabled, aged/dual eligible and aged/non-dual eligible assigned populations. We restate the BY1 and BY2 expenditures in BY3 assigned beneficiary level of risk by calculating and applying risk ratios of the BY3 risk score divided by each year's risk score.

Third, we'll apply the benchmark year weights to the trended, risk-adjusted expenditures for the ESRD, disabled, aged/dual eligible, and aged/non-dual eligible populations. BY1 has a weight of $10 \%$, BY2 has a weight of $30 \%$, and BY3 has a weight of $60 \%$. This will give us weighted average annual per capita expenditures for each population.

We'll then weight the final benchmark to reflect the BY3 proportions of the ACO assigned beneficiary populations that are ESRD, disabled, aged/dual eligible and aged/non-dual eligible beneficiaries. We'll state the ACO's historical benchmark as a single per capita amount.

Under the participation agreement, the ACO is required to tell CMS of changes in the composition of its ACO participants and ACO providers/suppliers. The ACO must report to CMS within 30 days of adding or removing ACO participants and ACO providers/suppliers and must update its ACO participant and ACO provider/supplier list at the beginning of each performance year and at other such times as we specify. We'll adjust an ACO's historical benchmark based on the same 3 benchmark years to account for changes in ACOs participants. Additionally, if the ACO chooses to renew its agreement at the end of 3 years, we'll reset the ACO's historical benchmark at the start of the new agreement period, based on its most recent 3 calendar years prior to the start of the new agreement period.

### 6.2 Calculating the Updated Benchmark

We calculate the updated benchmark expenditures for each performance year as the sum of riskadjusted historical benchmark expenditures plus the flat dollar amount equal to the projected absolute amount of growth in national per capita expenditures for Parts A and B services under the original FFS program from the benchmark to the performance year.

To calculate the updated benchmark, we determine the national projected absolute amount of growth in per capita expenditures for each Medicare enrollment type (ESRD, disabled, aged/dual eligible, aged/non-dual eligible). We'll add this flat dollar amount to the risk-adjusted historical benchmark expenditures that were calculated in Section 6.1. For example, we would add the aged/dual eligible national amount of growth from historical benchmark to performance year (PY) to the aged/dual eligible risk-adjusted portion of the historical benchmark.

The overall updated benchmark for a PY is the weighted average of per capita expenditures for each of the Medicare enrollment types. To get the updated benchmark for a PY, we'll take a weighted average of ESRD, disabled, aged/dual eligible and aged/non-dual eligible benchmarks, using the PY ACO assigned beneficiary proportions of ESRD, disabled, aged/dual eligible and aged/non-dual eligible person years.

We'll calculate updated benchmarks for each performance year in a similar manner, adding to the historical benchmark expenditures the most recent flat dollar equivalents of the national expenditure growth amounts for ACO assigned beneficiary proportions of ESRD, disabled, aged/dual eligible and aged/non-dual eligible beneficiaries.

The updated benchmark is adjusted relative to the risk profile of the PY, as described in Section 4.5.

### 6.3 Calculating Performance Year 1 Interim and Final Reconciliation for ACOs with 2012 Start Dates

Unless stated otherwise, we'll determine an ACO's first year financial performance-for ACOs beginning April 1 and July 1, 2012-by applying the methodology for computing ACO per capita expenditures outlined above in Section 4 and we'll determine shared savings and losses using the methodology described in Sections 6.4 and 6.5 below (such as establishing the MSR, sharing rate determination, and annual limits on shared savings and losses).

This section describes the methodology for determining shared savings and losses for the first performance year for April 1 and July 1, 2012 starters, defined as 21 and 18 months, respectively. For all ACOs with start dates of April 1 and July 1, 2012, this methodology is made up of an interim payment calculation based on the ACO's first 12 months of participation and a final reconciliation happening at the end of the ACO's first performance year. The first performance year reconciliation takes into account the entire 21- or 18-month performance year by adjusting the ACO's interim payment calculation to account for only the first 9 or 6 months of performance included in Calendar Year 2012 (CY 2012) and adds this up with the ACO's CY 2013 performance. This will let us figure out the overall savings or losses for the ACO's first performance year. We'll perform these calculations for all ACOs with start dates of April 1 or July 1, 2012.

ACOs with start dates of April 1 and July 1, 2012 were allowed to opt for an interim payment (a payment of shared savings or accountability for shared losses based on their first 12 months of performance) as part of their application to participate in the Shared Savings Program. ACOs opting for interim payment are required to assure CMS that they're able to repay monies determined to be owed upon first year reconciliation. ACOs under the two-sided model that can show they have an adequate repayment mechanism in place as part of their entrance into a shared loss arrangement will have
sufficiently assured CMS they can return any overpayment of shared savings that may have resulted from the interim payment.

### 6.3.1 Interim Payment Calculation

In the interim payment calculation, we'll determine shared savings and losses based on the ACO's first 12 months of program participation. Quality performance for the interim payment calculation will be based on the complete reporting of GPRO quality data reported for calendar year 2012. Claims-based measures and CAHPS measures will be calculated by CMS for informational purposes for 2012.

To calculate expenditures for the interim reconciliation, we'll assign beneficiaries retrospectively based on the ACO's first 12 months of performance with 3 -month claims run-out. We'll calculate the ACO's per capita expenditures, for the same 12 month period, using 3-month claims run-out with a completion factor verified by OACT. We’ll risk-adjust these expenditures to appropriately account for newly assigned beneficiaries and continuously assigned beneficiaries for this same period. We'll use the most recently available final CMS-HCC prospective risk scores. We'll adjust newly assigned beneficiaries by their HCC score. For continuously assigned beneficiaries, we'll use either a demographic or CMS-HCC risk ratio adjustment as described above at Section 4.5. We'll compare the first 12 months of per capita beneficiary expenditures to the historical benchmark updated for the period which includes the ACO's first 12 months of performance. For an ACO under the one-sided model, we'll base the MSR on the number of beneficiaries assigned to the ACO for its first 12 months of performance, whereas we'll apply a flat $2 \%$ MSR and minimum loss rate (MLR) to ACOs under the two-sided model.

Depending on the results of the interim payment calculation, an ACO which elects to receive an interim payment may receive a shared savings payment or, in the case of ACOs under the two-sided model, be liable for shared losses. We'll notify ACOs of shared savings or losses.

### 6.3.2 First Year Reconciliation

For ACOs beginning April 1 or July 1, 2012, the reconciliation for the first performance year will occur after the completion of the ACO's first performance year, defined as 21 months for April 1 starters and 18 months for July 1 starters; that is, at the conclusion of CY 2013. First year reconciliation will account for the entire 21- or 18-month period. Our assignment methodology and calculations of the updated benchmark and performance year expenditures will take into account the overlap between the ACO's first 12 months of performance and CY 2013. To simplify the summation of performance year
expenditures and the updated benchmark for the two overlapping timeframes, we'll state figures for first year reconciliation in the aggregate, rather than on a per capita basis.

The following steps outline the methodology for adjusting the ACO's interim payment determination to account only for the 6 or 9 months included in CY 2012 and summing it with the ACO's CY 2013 performance:

- Assignment: We'll sum first performance year expenditures over beneficiaries assigned in two overlapping 12-month assignment windows. The first window will be the beneficiaries assigned for the first 12 months used for the interim payment calculation. The second window will be beneficiaries assigned for CY 2013.
- Aggregate expenditures for the first performance year: We'll sum: (A) aggregate interim payment expenditure dollars to account for the ACO's first 6 or 9 months during CY 2012 for beneficiaries we assigned for the interim payment calculation with (B) aggregate dollars calculated for CY 2013 for beneficiaries assigned for CY 2013.
- Risk adjustment: We’ll perform risk adjustment for beneficiaries we assigned in CY 2013 as we would for a normal calendar performance year, based on a comparison of the most recently available final CMS-HCC prospective risk scores for continuously assigned and newly assigned beneficiaries to BY3 risk scores. We'll identify beneficiaries from the CY 2013 assignment window as either continuously assigned or newly assigned relative to the previous calendar year. We'll base risk adjustment for the 6 or 9 months of performance year one (PY1) that lie within CY 2012 on the same adjustment factor identified for purposes of the interim payment calculation. Therefore, the risk scores we'll use to adjust the beneficiaries assigned in CY 2013 will be more recent than those we'll use to adjust the beneficiaries assigned in the ACO's first 12 months of performance. We'll use the respective risk adjustment factors to adjust updated benchmark dollars to the performance year risk level.
- Updating the benchmark: We'll establish an updated benchmark for the first performance year stated in aggregate dollars. Based on the assigned beneficiary population for the ACO's first 12 months of performance, we'll calculate the portion of the ACO's interim updated benchmark in 2012 using the average fraction of expenditures incurred in the latter 6 or 9 months of CY 2012, and restate it in terms of aggregate expenditures. We'll determine the
average fraction based on the percentage of total FFS expenditures that occurred nationally for that period. We'll add to that an updated aggregate benchmark representing CY 2013.
- Determining shared savings and losses: We'll determine the savings percentage for the entire 21- or 18 -month performance year by comparing summed expenditures to summed updated benchmark dollars. We'll compare this percentage to the ACO's MSR or MLR as stated in terms of a percent of the ACO's updated benchmark. For ACOs under the one-sided model, we'll compare the PY1 savings percentage to a MSR obtained from Table 7 by counting all beneficiaries who have been assigned in at least one of the two assignment windows for PY1. For ACOs under the two-sided model, we'll compare the PY1 savings percentage to a flat 2\% MSR or MLR.
- The reconciled amount of the shared savings or losses owed to or by the ACO for the performance year will be net of any interim payments of shared savings or losses.


### 6.4 Annual Financial Reconciliation Calculations-One-Sided Model

This section details how we'll perform the annual financial reconciliation calculations under the one-sided model. First, we'll calculate the per capita updated benchmark as described above. We'll then rerun our assignment algorithm at the end of each PY and calculate per capita assigned beneficiary PY expenditures. For both the benchmark and the applicable PY, we'll multiply each ACO's per capita expenditures by the assigned beneficiary person years in the PY.

Next, we'll calculate total savings or losses for the PY. First, we determine if the total updated benchmark minus the total assigned beneficiary PY expenditures is greater than zero (potential savings). If so, we then determine whether or not the savings generated by the ACO are greater than or equal to the MSR, which is based on the number of assigned beneficiaries. The MSR is the minimum threshold necessary to share savings. Note: for the one-sided model, the ACO's MSR is based on a sliding scale relative to the size of its assigned beneficiary population, ranging from $2.0 \%$ to $3.9 \%$ of the ACO's updated benchmark. If total savings are greater than or equal to the MSR, then savings occurred. Otherwise, there are neither shared savings nor shared losses since ACOs participating under the one sided model are not responsible for any losses.

We'll then calculate the shared savings percentage. The maximum quality performance sharing rate percentage is $50 \%$ under the one-sided model (with the remaining percent going to the Medicare program). We'll base the quality sharing rate on the ACO's quality performance. The final sharing rate is equal to the product of the ACO's quality score and the maximum sharing rate of $50 \%$. In PY1 of the

Shared Savings Program, an ACO can earn the maximum $50 \%$ of shareable savings for quality performance based on full and accurate reporting of quality measures (known as pay for reporting). In PY2, pay for reporting will continue for a subset of the measures, and ACOs’ performance on some measures will be scored. In PY3, we'll score ACOs on all measures with the exception of the functional status module of the CAHPS survey, which will remain pay for reporting. If the ACO does not satisfy the reporting requirements during the pay for reporting years, it will not be eligible for any shared savings.

The final savings rate will apply to an ACO's savings on a first dollar basis. Under the one-sided model, shared savings are subject to a cap equal to $10 \%$ of total updated benchmark expenditures in each performance year. If an ACO is eligible to receive shared savings, we will reduce the shared savings amount paid to the ACO by $2 \%$ due to sequestration. This $2 \%$ reduction will be applied after all other calculations for shared savings are complete. For those ACOs that are participating in the Advance Payment Model or the ACO Investment Model, sequestration is applied to the gross payment amount and then the advance payment withhold is subtracted.

### 6.5 Annual Financial Reconciliation Calculations-Two-Sided Model

This section describes how we'll perform the annual financial reconciliation calculations under the two-sided model. First, we'll calculate the per capita updated benchmark as described above. We'll then rerun our assignment algorithm at the end of each PY and calculate per capita assigned beneficiary PY expenditures. For both the benchmark and the applicable PY, we'll multiply each ACO's per capita expenditures by the assigned beneficiary person years in the PY.

Next, we'll calculate total savings or losses for the PY. First we determine if the total updated benchmark minus the total assigned beneficiary PY expenditures is greater than zero (potential savings) or less than zero (potential losses). We then determine whether or not the savings or losses generated by the ACO are equal to or greater than the MSR or the MLR. The MSR is the minimum threshold necessary to share savings. The MLR is the minimum threshold to share losses. The MSR and the MLR are set at +/-2\% for all ACOs in the two-sided model. For example, with a MSR of $2 \%$, the total updated benchmark expenditures multiplied by $2 \%$ is the MSR (\$). Likewise, if the MLR percentage is set at $-2 \%$, the MLR dollar amount is equal to the total updated benchmark expenditures multiplied by $-2 \%$.

If total savings are equal to or greater than the MSR, then the ACO is eligible to receive a share of these savings. If total losses are equal to or greater than the MLR, then the ACO will be accountable for repaying a share of those losses. Otherwise, there are neither shared savings nor shared losses.

We'll then calculate the shared savings percentage. The maximum quality performance sharing rate percentage is $60 \%$ under the two-sided model (with the remaining percent going to the Medicare program). We'll base the quality sharing rate on the ACO quality performance. In PY1, an ACO can earn the maximum $60 \%$ of shareable savings for quality performance based on full and accurate reporting of quality measures (known as pay for reporting). In PY2, pay for reporting will continue for a subset of the measures, and ACOs' performance on some measures will be scored. In PY3, we'll score ACOs on all measures with the exception of the functional status module of the CAHPS survey, which will remain pay for reporting. If the ACO does not satisfy the reporting requirements during the pay for reporting years, it will not be eligible for any shared savings.

The final sharing rate is equal to the product of the ACO's quality score and the maximum sharing rate of $60 \%$. The final loss rate is equal to one minus the final sharing rate. The final loss rate will not exceed $60 \%$. The final savings and loss rates will apply to an ACO's savings or losses on a first dollar basis.

Under the two-sided model, shared savings are subject to a cap equal to $15 \%$ of total updated benchmark expenditures in each year. Shared losses are subject to a limit equal to $5 \%$ of total updated benchmark expenditures in PY1, $7.5 \%$ of total updated benchmark expenditures in PY2, and $10 \%$ of total updated benchmark expenditures in PY3. If an ACO is eligible to receive shared savings, we will reduce the shared savings amount paid to the ACO by $2 \%$ due to sequestration. This $2 \%$ reduction will be applied after all other calculations for shared savings are complete. For those ACOs that are participating in the Advance Payment Model or the ACO Investment Model, sequestration is applied to the gross payment amount and then the advance payment withhold is subtracted.

If an ACO has shared losses, the ACO must make payment in full to CMS within 90 days of receipt of notification. If the ACO fails to make payment in full within this time, CMS shall draw upon the repayment mechanism established by the ACO as a condition of eligibility to participate in the twosided model. If an ACO's self-executing repayment mechanism is not adequate to pay for all of the losses in the current year, the unpaid amount and any accrued interest are due in full.

### 6.6 Repayment Mechanism

ACOs entering the program's two-sided model, and ACOs under the one-sided model requesting an interim payment calculation for the first performance year, must demonstrate they have in place a selfexecuting repayment mechanism capable of repaying at least $1 \%$ of the ACO's total per capita Medicare FFS Parts A and B expenditures for its assigned beneficiaries based on its historical benchmark. We'll
compute this amount by multiplying an estimated per capita amount by an estimated number of assigned beneficiaries, and multiplying this product by $1 \%$. We'll provide ACO applicants with an estimate of the amount of their repayment mechanism based on their historical data. We'll require these ACOs to provide documentation of this repayment mechanism. We'll determine the adequacy of this repayment mechanism as part of evaluating an ACO's eligibility to accept losses or to receive an interim payment calculation.

Further, ACOs participating under the program's two-sided model must demonstrate the adequacy of this repayment mechanism annually, prior to the start of each performance year in which they are accountable for shared losses, by demonstrating they are capable of repaying potential losses equal to at least $1 \%$ of the ACO's total per capita Medicare FFS Parts A and B expenditures for their assigned beneficiaries based on expenditures for the most recent year. We'll compute this amount by multiplying an estimated per capita amount by an estimated number of assigned beneficiaries, and multiplying this product by $1 \%$. We'll provide ACOs participating under the two-sided model with a revised estimate of the amount of their repayment mechanism based on their performance year data.

### 6.7 Advance Payment ACO Model and ACO Investment Model

Some ACOs participating in the Shared Savings Program also participate in the Advance Payment ACO Model or ACO Investment Model implemented by the Center for Medicare and Medicaid Innovation. Through the Advance Payment ACO Model and ACO Investment Model, selected small, rural or physician only ACOs receive upfront and monthly payments. CMS will automatically withhold any shared savings payments earned during the agreement period until the full amount of advance payments paid to the ACO as of the date of the financial reconciliation is offset and thereby repaid by the ACO. For a performance payment to be offset to repay advance payments, an ACO must earn a performance payment (generate shared savings that meet or exceed its MSR) and otherwise qualify for a performance payment (e.g., through adequate quality reporting). In any given performance year, the repayment for advance payments cannot exceed the value of the earned shared savings.

## SECTION 7: REPORTS PROVIDED TO ACOS

We'll provide ACOs with information on their assigned population and financial performance at the start of the agreement period and routinely during the course of the performance year. We'll provide:

- A report on the beneficiaries assigned for the most recent benchmark year which include beneficiary identifiable information, as well as quarterly reports on the ACO's preliminary prospectively assigned population and a year-end report on retrospectively assigned beneficiaries used for financial reconciliation.
- Assignment summary reports on beneficiaries assigned for each benchmark year, preliminarily prospectively assigned each quarter, and retrospectively assigned for financial reconciliation.
- Aggregate expenditure and utilization reports provided each quarter during the agreement period, and provided for each benchmark year and annually for each performance period (for interim payment calculation and for each performance year).
- Financial reconciliation reports specifying the calculation of the ACO's historical benchmark, updated benchmark and determination of shared savings/losses.

Table 8 (Selected Characteristics of Shared Savings Program ACO Reports) below provide a comparison of characteristics and data sources for the above mentioned ACO Reports.

Table 8 provides information on selected characteristics of these ACO Reports. This table illustrates the differences between reports produced on a quarterly basis and those reports produced on an annual basis. For reports produced annually a 3 -month claims run-out is used, whereas, a 7 -day claims run-out is used for reports produced quarterly. In order to get real-time data to the ACOs during each quarter, a smaller claims run out must be used. Consequently, the expenditure completion factors must be larger for quarterly data to account for this shorter claims run-out. Lastly, payments withheld due to sequestration will be added into expenditures in 2013 Q4 reports and all quarterly reports moving forward. Payments withheld due to sequestration were not included in the quarterly reports produced before 2013 Q4.

Table 8
Selected characteristics of Shared Savings Program ACO reports

| Characteristic | Assignment Summary Report |  | Expenditure/UtilizationReport |  | Historical Benchmark Report |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quarterly Report | Annual Report | Quarterly Report | Annual Report |  |
| Claims Run-Out | $\leq 7$ days | 3 months | $\leq 7$ days | 3 months | 3 months |
| Assignment Dates of Service | Most recent 12 months | Calendar Year | Most recent 12 months | Calendar Year | Calendar Year |
| Expenditure Completion Factors | N/A | N/A | 1.072 | 1.013 | 1.013 |
| Medicare Enrollment Type Determined | Monthly | Monthly | Monthly | Monthly | Monthly |

N/A = "not applicable". Expenditures and utilization are not included in all reports, and a completion factor is not used for utilization rates.

## LIST OF ABBREVIATIONS

| Acronym | Spelled-out meaning |
| :--- | :--- |
| ACO | Accountable Care Organization |
| BY | Benchmark Year |
| CAH | Critical Access Hospital |
| CCN | CMS Certification Number |
| CMS | Centers for Medicare \& Medicaid Services |
| CMS-HCC | CMS Hierarchical Condition Category |
| CPT | Current Procedural Terminology |
| CY | Calendar Year |
| DME | Durable Medical Equipment |
| DSH | Disproportionate Share Hospital |
| EIN | Employer Identification Number |
| ESRD | End Stage Renal Disease |
| ETA | Electing Teaching Amendment Hospital |
| FFS | Fee-for-Service |
| FQHC | Federally Qualified Health Center |
| GPRO | Group Practice Reporting Option |
| HCPCS | Healthcare Common Procedure Coding System |
| HHA | Home Health Agency |
| IDR | Integrated Data Repository |
| IME | Indirect Medical Education |
| MA | Medicare Advantage |
| MLR | Minimum Loss Rate |
| MSR | Minimum Savings Rate |
| NCH | National Claims History |
| NPI | National Provider Identifier |
| OACT | CMS Office of the Actuary |
| PACE | Program of All Inclusive Care for the Elderly |
| PECOS | Provider Enrollment, Chain and Ownership System |
| PY | Performance Year |
| QMBs | Qualified Medicare beneficiaries |
| RHC | Rural Health Clinic |
| SNF | Skilled Nursing Facility |
| SSN | Social Security Number |
| TIN | Taxpayer Identification Number |
|  |  |
|  |  |


[^0]:    1 Medicare Shared Savings Program: Accountable Care Organizations, 76 Fed. Reg. 67802 (Nov. 2, 2011) (Amending 42 C.F.R. Chapter IV by adding part 425).

[^1]:    2 Annualization and weighting adjusts for months of beneficiary eligibility.

[^2]:    ${ }^{3}$ Please note that Medicare Secondary Payer (MSP) status doesn't exclude a beneficiary from assignment to an ACO.

[^3]:    ${ }^{4}$ As assigned by the U.S. Internal Revenue Service. There are two types of TINs: Social Security Numbers (SSNs) and Employer Identification Numbers (EINs).

[^4]:    ${ }^{5}$ All ACOs will have special identifiers in the form of Axxxx (with the x's being a 4-digit number).

[^5]:    ${ }^{6}$ The physician services, per se, are reimbursed during settlement of the annual Medicare Cost Report for ETA hospitals.

[^6]:    ${ }^{7}$ CPT is copyright 2011 American Medical Association. All rights reserved.

