Pioneer ACO Alignment and Financial Reconciliation Methods

Contents

1.0 Introduction and Overview

The Pioneer ACO model will use a shared savings arrangement in which the expenditure target for a performance year is based on the historical expenditures during a base period for a prospectively defined cohort of beneficiaries. All Pioneer ACO's will use this shared savings arrangement in years 1 and 2. Those ACO's who continue under the shared savings arrangement in year 3 will also use these methods. The Pioneer shared savings method is broadly similar to other shared savings methods. Under the Pioneer method:

- Savings are defined as the difference between a per capita expenditure benchmark for a performance year and the observed per capita expenditure of that year's aligned beneficiaries.

- The expenditure benchmark is developed using a formula based on the trend in per capita expenditures for alignment-eligible Medicare beneficiaries covered by the traditional fee-for-service program. This benchmark is developed from three components:

    1. An estimate of the average per capita expenditure of the aligned beneficiaries during a three year base period (referred to in this document as the expenditure baseline).
    2. A national expenditure baseline for comparable Medicare beneficiaries.
    3. A national average per capita expenditure during the performance year for comparable Medicare beneficiaries

The Pioneer shared savings method differs from other shared savings methods in three ways.

- First, the expenditure baseline is derived from the historical expenditures of *prospectively aligned* beneficiaries. This differs from other shared savings methods in which the expenditure baseline reflects the average expenditure during the baseline period of a comparably selected, but different, population of beneficiaries who were aligned with the ACO during the baseline period.

- Second, the national expenditure baseline and national average per capita expenditure for each performance year is calculated using the experience of all beneficiaries who were eligible for alignment with an ACO in the performance year.

- Third, the national per capita baseline expenditure and the national per capita performance year expenditure are adjusted to reflect the distribution of the ACO's prospectively aligned beneficiaries across eligibility, age and sex categories.

The implementation of the Pioneer shared savings method is technically complex. This document describes the technical details of that method.

2.0 Prospectively aligned Pioneer ACO beneficiaries

The beneficiaries aligned with a Pioneer ACO are identified prospectively in the sense that they are identified *prior to the start of the performance year* on the basis of their historical utilization. In general, a beneficiary is aligned with a Pioneer ACO if she or he received the largest amount of primary care services (or in certain circumstances, selected specialty care services) from physicians and other practitioners that are affiliated with the ACO compared to providers affiliated with any other ACO or any non-ACO-affiliated provider.

The physicians and other practitioners affiliated with an ACO will be identified based on a combination of Taxpayer Identification Numbers (TINs), CMS Certification Number (CCNs), and individual National Provider Identifiers (NPIs). The claims data that will be used to perform alignment include professional claims for qualifying Evaluation and Management (E&M) services and claims for certain services provided by Federal Qualified Health Centers (FQHCs), Rural Health Centers (RHCs), and Critical Access Hospitals that are paid under Method II (i.e., the RBRVS physician fee schedule). [1]

A primary care physician or practitioner may be affiliated as a primary care physician with one and only one Pioneer ACO. Specialist physicians may be affiliated with more than one Pioneer ACO.

2.1 Prospective alignment of alignment-eligible beneficiaries

2.1.1 Alignment periods and weighting of claims

Alignment of a beneficiary with a Pioneer ACO will be based on the beneficiary's pattern of utilization during a 3-year alignment period. While the baseline period that is used to set the expenditure baseline (discussed in the next section) is the same for all performance years, the alignment period differs for each performance year. The alignment period for a performance year consists of the 36-month period ending six months prior to performance year.

- For 2012 (PY1) the alignment period is July 2008 through June 2011.
- For 2013 (PY2) the alignment period is July 2009 through June 2012.
- For 2014 (PY3) the alignment period is July 2010 through June 2013.

For purposes of alignment calculations, the 36-month alignment period is divided into three 12-month alignment years. The alignment years for each performance year are given in Table 1.

Alignment calculations will make use of claims for qualifying services that are provided during any alignment year in which the beneficiary is alignment-eligible. That is, the date of service on the associated claim must fall within an alignment year in which the beneficiary was alignment-eligible. If a beneficiary was not alignment-eligible for one or more months during the alignment year, none of the

[1] In performance year 1, alignment will be based only on professional claims. Claims for services provided by FQHCs, RHCs and Critical Access Hospitals will not be used in performance year 1 alignment calculations.

beneficiary's claims for qualifying E&M services provided during that alignment year will be used in the alignment calculations. Alignment eligibility is discussed in detail, below.

The claims experience of the beneficiary will be weighted to give greater importance to the use of providers closer in time to the performance year. Claims for qualifying services will be weighted as follows:

- Claims incurred during alignment year 1 (ending June 2009 in PY1) are weighted 10%.
- Claims incurred during alignment year 2 (ending June 2010 in PY1) are weighted 30%.
- Claims incurred during alignment year 3 (ending June 2011 in PY1) are weighted 60%.

When a beneficiary has fewer than three alignment-eligible years for use in alignment calculations, the weights are adjusted proportionately. For example, if a beneficiary was alignment-eligible only in alignment years 2 and 3, the claims for alignment year 2 will be weighted one-third (⅓ = 30% ÷ (30% + 60%)) and the claims for alignment year 3 will be weighted two-thirds (⅔ = 60% ÷ (30% + 60%)). Note that all prospectively aligned beneficiaries must be alignment-eligible in alignment year 3.

2.1.2 Qualifying E&M services and the 2-stage alignment algorithm

Alignment is based on the use of qualifying E&M services. Qualifying E&M services refer to the E&M services listed in Table 2 that are provided by the select primary care and specialist physicians listed in Tables 3 and 4, respectively. Alignment uses a two-stage alignment algorithm:

- If 10% or more of the qualifying E&M services used by a beneficiary during all alignment-eligible years in the 3-year alignment period are provided by physicians and practitioners with a primary care specialty as defined in table 3, then alignment is based on the qualifying E&M services provided by the primary care specialists. In this case, the beneficiary will be aligned with the ACO that, during all alignment-eligible years incurs the largest share of the weighted allowed charges for qualifying E&M services that are provided by primary care physicians and practitioners.
- If less than 10% of the qualifying E&M services are provided by primary care specialists, then alignment is based on the qualifying E&M services provided by physicians and practitioners with a non-primary specialty as defined in table 3. In this case, the beneficiary will be aligned with the ACO that, during all alignment-eligible years incurs largest share of the weighted allowed charges for qualifying E&M services that are provided by specialist physicians and practitioners.

Operationally, the alignment calculation involves the following steps:

1. Identify (a) all combinations of Tax Identification Numbers (TINs) and National Provider Identifiers (NPIs) that are submitted on professional claims by providers affiliated with each ACO; (b) all CMS Certification Numbers (CCNs) that are submitted on institutional claims by

FQHCs and RHCs affiliated with each ACO; and (c) all CCNs and NPIs that are submitted on institutional claims by CAH Method 2 providers affiliated with each ACO.[2]

These TIN/NPI combinations, CCNs, and CCN/NPI combinations define the providers affiliated with the ACO. Only those claims that are associated with the specific TIN/NPI combination, CCN, or CCN/NPI combination will be "attributed" to the ACO for purposes of beneficiary alignment. Each TIN or CCN that is not affiliated with an ACO will be treated as an independent non-ACO provider with which an alignment-eligible beneficiary may be aligned. Similarly, any TIN/NPI combination that is not reported by the ACO as identifying an ACO provider will be treated as an independent non-ACO provider.

2. Identify all Part B physician/supplier (professional) claims for qualifying E&M services that were provided during the three-year alignment period (at any provider, not just ACO affiliated providers). The qualifying E&M services refer to the E&M procedure codes given in Table 2, that were provided by the select primary care and specialty care physicians listed in Tables 3 and 4.

3. Identify all Part B facility (institutional) claims for qualifying E&M services (or revenue center codes identifying E&M services) that were provided by FQHCs, RHCs, and CAH Method 2 providers during the three-year alignment period (at any FQHC, RHC, or CAH Method 2 provider, not just those affiliated with an ACO).

4. Identify all Medicare beneficiaries with a qualifying E&M service from Steps 2 and 3.

5. For each beneficiary, calculate:
    a. The total allowed charges for qualifying E&M services that are provided by primary care physicians (see Table 3 for a list of "primary care" specialty codes) during each alignment year.
    b. The total allowed charges for qualifying E&M services that are provided by specialists (see Table 4 for a list of "specialist" specialty codes).
    c. Total allowed charges for all qualifying E&M services (the sum of (a) and (b)).

    Specialty will be determined by the specialty code on the claim.

6. If a beneficiary's total allowed charges for qualifying E&M services obtained from primary care physicians is 10% or more of total "allowed charges" for qualifying E&M services, align each beneficiary with a provider (ACO or non-ACO TIN) using allowed charges for qualifying E&M services from primary care providers in all alignment-eligible alignment years.

7. If a beneficiary's total allowed charges for qualifying E&M services obtained from primary care physicians is less than 10% of total "allowed charges" for qualifying E&M services, align each beneficiary with a provider (ACO or non-ACO TIN) using allowed charges for qualifying E&M services from specialist providers in all alignment-eligible alignment years.

[2] In performance year 1, only services provided by physicians and practitioners and billed as a professional claim will be used in alignment calculations. FQHC, RHC and CAH claims will not be used in performance year 1 alignment calculations.

In the case of a tie for beneficiaries being aligned on the basis of either "primary care" or "specialist" E&M services, the beneficiary will be aligned with the provider from which the beneficiary most recently obtained a qualifying E&M service.

2.2 Alignment eligibility

2.2.1 Prospective alignment

A beneficiary's claims experience for an alignment year will be used in prospective alignment calculations if, during the alignment year, the beneficiary:

1. had 12 months of coverage under both Medicare Part A and Part B;
2. had no months of coverage in which Medicare was the secondary payer;
3. had no months of coverage under a Medicare managed care plan; and,
4. had no months of residence outside the United States.

To be eligible for prospective alignment, a beneficiary must be eligible for alignment in the third (latest) alignment year. That is, a beneficiary must have 12 months of fee-for-service (FFS) coverage under Medicare Part A and Medicare Part B and meet the other requirements for alignment-eligibility in the third alignment year.

Because prospective alignment is calculated on the basis of claims incurred at least six months prior to the start of the performance year, the prospectively aligned cohort will include some beneficiaries who will not meet the eligibility requirements during the performance year. For example, some prospectively aligned beneficiaries will die prior to the start of the performance year. Others may enroll in a Medicare Advantage plan and will not, therefore, be covered by the fee-for-service program during the performance year.

2.2.2 Realignment and attestation

The prospectively aligned beneficiaries who will be included in financial reconciliation accordingly will be determined 3 months after the end of each performance period. A beneficiary who is included in the prospective alignment at the start of the performance period but does not meet requirements for alignment during the performance period will be dropped from financial reconciliation calculations. Specifically, a prospectively aligned beneficiary will be dropped from financial reconciliation calculations if during the performance year the beneficiary:

1. had any months of coverage only under Medicare A or only under Medicare Part B;
2. had any months of coverage in which Medicare was the secondary payer;
3. had any months of coverage under a private Medicare plan;
4. had any months of residence outside the United States; or,

5. has moved outside the geographic area served by the ACO.

2.3 Baseline decedent population

The prospective alignment-eligible population does not include decedents. To ensure that baseline expenditure for the reference population as well as the ACO-aligned population reflects expenditures incurred by decedents, baseline decedents will be identified for each performance year.

Baseline decedents will consist of two groups of beneficiaries:

- Alignment-eligible beneficiaries who were alive at the end of the third alignment year for performance year 1 but who die prior to the start of performance year 1.
- Beneficiaries who die during the third alignment year, but who were otherwise alignment-eligible in alignment years 2 and 3.

The second of these two groups consists of beneficiaries who meet two conditions:

1. During the third alignment year the beneficiary died and:
   a. had no months of coverage under both Medicare Part A and Part B;
   b. had no months of coverage in which Medicare was the secondary payer;
   c. had no months of coverage under a Medicare managed care plan; and,
   d. had no months of residence outside the United States.

2. During the second alignment year, the beneficiary:
   a. had 12 months of coverage under both Medicare Part A and Part B;
   b. had no months of coverage in which Medicare was the secondary payer;
   c. had no months of coverage under a Medicare managed care plan; and,
   d. had no months of residence outside the United States.

The beneficiaries in this second group will be aligned with ACOs based on their use of qualified E&M services during the 2nd alignment year. Specifically, a decedent who dies during the third alignment year will be aligned with the ACO that provides the plurality of qualified E&M services during the 2nd alignment year. The same two-stage alignment algorithm described in section 2.2 will be used to align these decedents except that it will rely solely on the use of qualified E&M services during the 2nd alignment year.

3.0 Expenditures included in financial settlement

The expenditure of ACO alignment-eligible beneficiaries, including both beneficiaries aligned with an ACO and beneficiaries eligible for alignment but not aligned with an ACO, in any performance or baseline period is the sum of all Medicare payments on claims:

(a) For services covered by Part A or Part B of Medicare including:
    1. inpatient claims,
    2. hospital outpatient claims,
    3. carrier (physician/supplier Part B) claims,
    4. Skilled Nursing Facility (SNF) claims,
    5. Home Health Agency (HHA) claims,
    6. Durable Medical Equipment (DME) claims, and
    7. Hospice claims;
(b) That are incurred (i.e., with a date-of-service) during the baseline or performance period; and,
(c) That are paid (and considered to be the "final action") not more than 3 months after the last day of the baseline or performance period.

Medicare inpatient pass-through payment amounts (estimates) on inpatient claims will be excluded from expenditures.

Graduate Medical Education, PQRS, eRx, and EHR incentive payments for eligible professionals, and EHR incentive payments to hospitals will all be excluded from expenditure calculations.

Other adjustments based in Part A and B claims such as geographic payment adjustments and HVBP payments are included in expenditure calculations.

Payments related to other Medicare demonstrations or pilots will be included in Pioneer expenditure calculations only if they are paid for services delivered to a specific beneficiary (e.g,. are claims-based) as described in appendices to the Pioneer participation Agreement.

The specific requirements for the inclusion of claims are given in Table 7-6 in section 7.

4.0 Pioneer ACO Expenditure Baseline

The foundation of the Pioneer ACO expenditure target is an expenditure baseline that represents the estimated per capita expenditure of the ACO's prospectively aligned beneficiaries in the base period. The base period for the first Pioneer ACO contract cycle will be the three calendar years (CY) 2009, 2010, and 2011.

The Pioneer ACO expenditure baseline is updated annually to reflect the changing composition of the ACO's prospectively aligned beneficiaries. Prior to each performance year, the beneficiaries that were aligned with the ACO will be identified prospectively based on their pattern of utilization during the three year alignment period for that performance year. The expenditure baseline for that performance year will then be calculated based on the expenditures incurred during the baseline period (CY2009 through CY2011) by that prospectively identified cohort of beneficiaries. While the Pioneer ACO alignment period is always the 36-month period ending six months prior to the start of the performance year, the baseline period is *always* the three calendar years 2009, 2010, and 2011.[3]

Baseline expenditures will be recalculated at three points in time for each performance year.

1. The preliminary prospective baseline expenditure will be calculated prior to the start of the performance year using the prospectively aligned beneficiaries for that performance year, incomplete claims data for the third baseline year, and all prospectively-aligned beneficiaries including those that may not be alignment-eligible on the first day of the performance year.

2. The prospective baseline expenditure will be calculated in April of the performance year, using the prospectively aligned population for the performance year who are determined to be alignment-eligible as of the first day of the performance year.

3. The final baseline expenditure will not be calculated three months after the end of the performance year.

See Table 6 for a summary of the sequencing of alignment, baseline, and performance year calculations and reports during performance years 1 through 3.

4.1 Alignment-eligible base years

Baseline calculations will only make use of claims that were incurred in a baseline year during which the beneficiary is alignment-eligible. A beneficiary's claims experience for a baseline year will be used in baseline calculations if, during that calendar year, the prospectively aligned beneficiary:

[3] As discussed in section 4.4, beginning with performance year 2, some prospectively aligned beneficiaries will not have been eligible for alignment during the base period. The baseline expenditure for these beneficiaries will be based on the expenditures incurred during the alignment period.

1. had 12 months of coverage under both Medicare Part A and Part B;
2. had no months of coverage in which Medicare was the secondary payer;
3. had no months of coverage under a Medicare managed care plan; and,
4. had no months of residence outside the United States.

These requirements mean that every the baseline will include claims only for base years in which the prospectively aligned beneficiary had 12 months of fee-for-service (FFS) coverage under Medicare Part A and Medicare Part B.

4.2 The Pioneer ACO expenditure baseline

The ACO-specific baseline expenditure has three components:

- The first component is the average base period expenditure of prospectively aligned beneficiaries. This component reflects expenditures incurred by prospectively aligned beneficiaries during the baseline period. In performance year 1, all prospectively aligned beneficiaries will have been eligible for alignment in at least one of the three baseline years.
- Beginning in performance year 2, however, some beneficiaries will be prospectively aligned with a Pioneer ACO but will not have been eligible for alignment during the 3-year baseline period. For example, a beneficiary who first becomes covered by Medicare in June 2012 will become eligible for prospective alignment with a Pioneer ACO in the third performance year (2014). This beneficiary was not, however, eligible for alignment during any of the three baseline years (2009 through 2011). The third component of the Pioneer ACO baseline is an estimate of the average base period expenditure of prospectively aligned beneficiaries who were not eligible for alignment during any of the three baseline years (2009 through 2011).
- Because the prospectively identified cohort of beneficiaries aligned with an ACO are all, by definition, alive at the start of the performance year, the average base period expenditure of prospectively aligned beneficiaries of the Pioneer ACO expenditure baseline will not include expenditures that are incurred in the year of a beneficiary's death.

The expenditure baseline will be recalculated annually, as already noted, to reflect the historical claims experience of the beneficiaries who are prospectively aligned with the Pioneer ACO in each performance year.

Because the baseline period covers three years, each prospectively aligned beneficiary's expenditures for 2009 and 2010 will be trended to calendar year 2011 based on the change in expenditures for beneficiaries residing in the same state, who have the same basis of Medicare entitlement, and who are in the same age/sex category. These methods are described below. Table 7 defines the eligibility, age, and sex categories that will be used in all eligibility/age/sex adjustments.

The expenditures of each prospectively aligned beneficiary are also capped to reduce the effect on the baseline of extremely large random variations in individual spending. The caps are applied to each prospectively aligned beneficiary's annualized expenditure in each year.

4.3 Average base period expenditure for prospectively aligned beneficiaries

The first component of the expenditure baseline is the average base period expenditure of prospectively aligned beneficiaries who were alignment-eligible in at least one of the base period years. This component uses only data for complete calendar years. That is, if a beneficiary has less than 12 months of qualifying coverage during a calendar year, that year is dropped from the development of the baseline. This means that some beneficiaries will have only 1 or 2 years of experience that will be reflected in the expenditure baseline, although most beneficiaries will have experience in all three years.

The development of the base period expenditure for prospectively aligned beneficiaries is a multi-step process:

1. Identify the base line years in which the beneficiary was alignment-eligible.
2. Calculate the beneficiary's total expenditure for each baseline-eligible year. A beneficiary who was alignment eligible in a baseline year but incurred no claims will have a expenditure of zero for that baseline-eligible year.
3. Apply the relevant cap (aged, disabled, or ESRD) to the beneficiary's expenditure in each year.
4. Trend the beneficiary's capped expenditure for 2009 and 2010 to 2011 based on the beneficiary's state of residence, entitlement category, age, and sex.
5. Calculate each beneficiary's average expenditure over the base period.
6. Calculate the simple average of all prospectively aligned beneficiaries' base period average expenditure.

In step 5, each baseline-eligible year is weighted equally. For a beneficiary with three alignment-eligible years of experience each year is weighted one-third. Each year is weighted one-half if a beneficiary has just two years of alignment-eligible experience. If a beneficiary has just one year of alignment-eligible experience, then that single year is weighted 100 percent.

4.3.1 Capped, annualized base year expenditure

The capped, annualized expenditure of a beneficiary for a year in which the beneficiary is alignment-eligible is the lesser of two amounts: (a) the expenditures incurred by the beneficiary during the year; and (b) the expenditure cap that applies to the beneficiary. The cap that will be applied to annual expenditures will depend on whether the beneficiary has ESRD:

- For aged and disabled beneficiaries without ESRD the cap will be equal to the unweighted 99th percentile of the annualized expenditure distribution for the aged-disabled national reference population for the specified base year.
- For aligned ESRD beneficiaries the cap will be the unweighted 99th percentile of the annualized expenditure distribution for the ESRD national reference population for the specified year.

The cap for beneficiaries classified as having ESRD in some but not all months during the baseline year will be a weighted average of the caps for ESRD and aged-disabled beneficiaries where the weight applied is the proportion of the eligible months in each status.

4.3.2 Trending 2009/10 base period expenditures to 2011

Each prospectively aligned beneficiary's expenditure in 2009 (or 2010) is trended to 2011 based on the average expenditure of all alignment-eligible beneficiaries who, as of July 1 of the third alignment year:

- resided in the same state;
- has the same eligibility category (aged/originally disabled/ESRD);
- was in the same age category; and,
- was of the same sex.

The development of the projected 2011 expenditure for a prospectively aligned beneficiary with 2009 expenditures is a two-step process:

- Multiply the 2009 expenditure of the prospectively aligned beneficiary by the 2011 average expenditure for all alignment-eligible (reference) beneficiaries with the same state of residence (as defined above), eligibility status, age and sex as the prospectively aligned beneficiary.
- Divide the resulting product by the 2009 average expenditure for all alignment-eligible (reference) beneficiaries with the same state of residence (as defined above), eligibility status, age and sex as the prospectively aligned beneficiary.

Similarly, the development of the projected 2011 expenditure for a prospectively aligned beneficiary with 2010 expenditures involves a two-step process:

- Multiply the 2010 expenditure of the prospectively aligned beneficiary by the 2011 average expenditure for all alignment-eligible (reference) beneficiaries with the same state of residence (as defined above), eligibility status, age and sex as the prospectively aligned beneficiary.
- Divide the resulting product by the 2010 average expenditure for all alignment-eligible (reference) beneficiaries with the same state of residence (as defined above), eligibility status, age and sex as the prospectively aligned beneficiary.

No trending is required for 2011 expenditures.

In operational terms, several tables of expenditure and trend factors are developed for use in trending base year 1 and base year 2 expenditures to base year 3. Three tables give, for each state, the average

expenditure of all alignment-eligible (reference) beneficiaries by eligibility category, age and sex in 2009, 2010, and 2011. From these tables, two tables of trend factors are developed. The first of these gives the ratio of the 2011 to the 2009 average expenditure, by state, for each eligibility, age and sex category. The second gives the ratio of the 2011 to the 2010 average expenditure, by state, for each eligibility, age and sex category.

4.3.3 3-year weighted average trended, capped, annualized expenditure

The trended, capped, annualized expenditures for each of the beneficiary's alignment-eligible base years will be averaged to give the baseline expenditure for each ACO-aligned beneficiary. Only data from base years during which the beneficiary is alignment-eligible are used in the calculation and the expenditures from the three years will be equally weighted. In calculating the baseline expenditure each alignment-eligible base year is equally weighted.

1. The baseline expenditure for a beneficiary who was alignment-eligible in all three base years will be the simple average of the beneficiary's trended, capped, annualized expenditure in those three years.

2. The baseline expenditure for a beneficiary who was alignment-eligible in only two of the base years will be the simple average of the beneficiary's trended, capped, annualized expenditure in those two years.

3. The baseline expenditure for a beneficiary who was alignment-eligible only in one of the three base years will be the beneficiary's trended, capped, annualized expenditure in that year.

4.4 Baseline expenditure for beneficiaries without base period eligibility

The average base period expenditure for prospectively aligned beneficiaries will not, by definition, include expenditures of beneficiaries who were not covered by fee-for-service Medicare during the baseline period. In performance years 2 and 3, an estimate is needed for the expenditure baseline for these beneficiaries who lack baseline period experience but who are included in the prospectively aligned beneficiary cohort.

The baseline expenditure in 2011 for the beneficiaries who are prospectively aligned but who were not alignment eligible during the baseline period is estimated as follows:

- In performance year 2, it is the weighted average expenditure during performance year 1 of beneficiaries prospectively aligned for PY2 (2013) who were not alignment eligible in any base year.
- In performance year 3, it is the weighted average expenditure during performance years 1 and 2 of beneficiaries prospectively aligned in PY3 (2014) who were not alignment eligible in any base year.

Because the PY2 and PY3 expenditure are for a period that is later than the baseline period, the expenditure of a beneficiary who was not alignment-eligible in any base year will be "back-cast" to 2011. For a beneficiary who first becomes alignment-eligible for performance year 2, claims that are incurred in 2012 will be "back-cast" to 2011. For a beneficiary who first becomes alignment-eligible for performance year 3, claims that are incurred in either 2012 or 2013 will be "back-cast" to 2011.

The baseline component for beneficiaries who were not alignment-eligible in any base year is recalculated for each performance year to reflect the experience of the prospectively aligned population for each year.

4.4.1 Capped, annualized base year expenditure

The baseline expenditure for an alignment-eligible beneficiary who was not eligible in any of the three base years will be estimated based on the beneficiary's expenditures during alignment years in which the beneficiary was not aligned with the ACO. That baseline expenditure will be derived from the capped, annualized expenditure in those years determined using the methods outlined in section 4.3.

4.4.2 "Back-casting" 2012/13 expenditures to 2011

The method used to "back-cast" the expenditures of a "newly aligned" beneficiary is analogous to the method used to "trend" the expenditures of beneficiaries from 2009 and 2010 to 2011. Instead of "inflating" expenditures to reflect rising costs, the "back-casting" method "deflates" expenditures from a more recent period to make them commensurate with expenditures for the baseline period.

Each prospective "newly aligned" beneficiary's expenditure in 2012 (or 2013) is "back-cast" to 2011 based on the average expenditure of all alignment-eligible (reference) beneficiaries who were not eligible during the 3-year baseline period and who resided in the same state and had the eligibility status, age and sex as the "newly eligible" prospectively aligned beneficiary. A comparable beneficiary is defined as an alignment-eligible beneficiary who lacks experience during the baseline period and who as of July 1 of the third alignment year has the same state of residence, the same eligibility status (aged/originally disabled/ESRD), and was classified in the same sex and age category as the prospective aligned beneficiary.

The development of the projected 2011 expenditure for a "newly aligned" beneficiary with 2012 expenditures involves a two-step process:

- Multiply the 2012 expenditure of the prospectively aligned beneficiary by the 2011 average expenditure for all alignment-eligible (reference) beneficiaries with the same state of residence (as defined above), eligibility status, age and sex as the prospective "newly aligned" beneficiary.

- Divide the resulting product by the 2012 average expenditure for all newly alignment-eligible (reference) beneficiaries with the same state of residence (as defined above), eligibility status, age and sex as the prospective "newly aligned" beneficiary.

Note that in the first of these steps, the 2012 expenditure of a prospective "newly eligible" beneficiary is multiplied by the average 2011 expenditure for all alignment-eligible beneficiaries, not only those beneficiaries who are "newly eligible". This is because, by definition, newly aligned beneficiaries have no experience in 2011 or earlier.

Similarly, the development of the projected 2011 expenditure for a prospectively aligned beneficiary with 2013 expenditures involves a two-step process:

- Multiply the 2013 expenditure of the prospectively aligned beneficiary by the 2011 average expenditure for all alignment-eligible (reference) beneficiaries with the same state of residence (as defined above), eligibility status, age and sex as the prospective "newly aligned" beneficiary.
- Divide the resulting product by the 2013 average expenditure for all newly alignment-eligible (reference) beneficiaries with the same state of residence (as defined above), eligibility status, age and sex as the prospective "newly aligned" beneficiary.

Again note that in the first of these steps, the 2013 expenditure of a prospective "newly eligible" beneficiary is multiplied by the average 2011 expenditure for all alignment-eligible beneficiaries not only those beneficiaries who are "newly eligible". This is because, by definition, newly aligned beneficiaries have no experience in 2011 or earlier.

Note: in operational terms, several tables of "newly eligible" expenditure and trend factors are developed. Two tables give, for each state, the average expenditure of all newly alignment-eligible (reference) beneficiaries by eligibility category, age and sex in 2012 and 2013. From these tables, two tables of trend factors are developed. The first of these gives the ratio of the 2011 to the 2012 average expenditure, by state, for each eligibility, age and sex category. The second gives the ratio of the 2011 to the 2013 average expenditure, by state, for each eligibility, age and sex category.

4.5 Baseline expenditure of aligned decedents

The average base period expenditure for prospectively aligned beneficiaries, by definition, represents the average expenditure of beneficiaries who were alive as of the first day of the performance period. The baseline expenditure, therefore, does not reflect the higher expenditures incurred by decedents in the year of death. Expenditures in the performance year, however, will include expenditures incurred by prospectively aligned beneficiaries who die during the performance year.

The decedent component of the ACO expenditure baseline represents the average annualized expenditure of all beneficiaries who died during the third baseline year and would have been aligned with the ACO based on their use of qualified E&M services in the second alignment year.

The decedent adjustment is calculated as follows:

- Each prospectively aligned decedent's expenditure during 2011 is calculated.
- The expenditure is annualized (divided by the ratio of the number of months during 2011 that the beneficiary was alive to 12).
- The annualized expenditure is capped by applying the expenditure cap for the appropriate entitlement category (aged/disabled/ESRD).
- The capped annualized expenditure of all aligned decedents is multiplied by the ratio of the number of months during 2011 that the beneficiary was alive to 12.
- The average baseline decedent expenditure is calculated by summing the weighted capped, annualized expenditures across all decedents and dividing by total decedent person-years (i.e., the sum of the ratio of the number of months during 2011 that the beneficiary was alive to 12)

The decedent adjustment to the ACO-baseline will be updated for each performance year. However, the adjustment will change as the specific practices and physicians/practitioners (i.e., TIN/NPI combinations) that are affiliated with ACOs change across performance years.

4.6 Combining the three components of the baseline

The ACO expenditure baseline is a person-year weighted average of the three components. It is calculated by:

- Multiplying the 3-year base period expenditure of prospectively aligned beneficiaries by the number of prospectively aligned beneficiaries who have baseline period experience.
- Multiplying the estimated base period expenditure of "newly aligned" beneficiaries by the number of prospective "newly aligned" beneficiaries, i.e., the number of prospectively aligned beneficiaries who do not have baseline period experience.
- Multiplying the baseline expenditure of aligned decedents by the number of person-years accrued by the ACO-aligned base year 3 decedents.
- Sum those three amounts and divide by the sum of the number of person-years accrued by prospectively aligned beneficiaries and the aligned decedents.

5.0 Calculating the Pioneer ACO expenditure benchmark

5.1 The Pioneer ACO expenditure benchmark

The ACO-specific expenditure benchmark is calculated by adding to the ACO-specific baseline expenditure for the performance year:

- 50% of the absolute dollar difference between the ACO-specific baseline reference expenditure and the ACO-specific performance year reference expenditure; and,
- 50% of the product of the ACO-specific baseline expenditure for the performance year and the percentage difference (change) between the ACO-specific baseline reference expenditure and the ACO-specific performance year reference expenditure.

The baseline and performance year expenditures for the reference population reflects the average experience of all ACO alignment-eligible beneficiaries, nationally, and is adjusted to reflect the entitlement, age and sex characteristics of the ACO's aligned beneficiaries.

The benchmark is recalculated for each performance year to reflect both the 2009 to 2011 expenditure baseline for the beneficiaries prospectively aligned with the ACO in each year and the observed change in expenditures for the reference population between the baseline period and the performance year.

5.2 The ACO-specific baseline reference expenditure

The ACO-specific baseline reference expenditure is an estimate of the average expenditure for all prospectively alignment-eligible beneficiaries in 2011, including both beneficiaries aligned to ACOs and beneficiaries not aligned to any ACO (i.e. aligned to an individual TIN, TIN/NPI combination or CCN that is not affiliated with an ACO).

The baseline reference expenditure is national, not state-specific. It is adjusted to reflect the composition of the ACO's prospectively aligned beneficiary population. The eligibility/age/sex category to which a beneficiary is assigned is determined by the beneficiary's eligibility category, age, and sex as of July 1st of the third alignment year.

There baseline reference expenditure is, therefore, an estimate of what the average expenditure of all alignment eligible beneficiaries would have been if the distribution of all alignment-eligible beneficiaries across eligibility, age, and sex categories was the same as that of the ACO. As a result, the baseline reference expenditure will differ across Pioneer ACOs.

The reference baseline expenditure has three components that correspond to the three components of the ACO-specific baseline expenditure:

- The baseline reference expenditure for all alignment-eligible beneficiaries who were alignment-eligible in at least one base period year.

- The baseline expenditure for all alignment-eligible beneficiaries who were not alignment-eligible in any of the three base period years.
- The baseline expenditure of alignment-eligible beneficiaries who die during the third base year.

The baseline reference expenditure in performance year 1 does not include the second of these three components as all prospectively aligned beneficiaries, by definition, were alignment-eligible in at least one of the three base years.

Each component will be calculated using a table of baseline reference expenditures specific to each type of beneficiary (those with base period eligibility, those without base period eligibility, and base period decedents). Each table will give the average capped, annualized baseline expenditure of alignment-eligible beneficiaries by eligibility, age, and sex, using the categories identified in Table 7. The average, capped, annualized expenditure of beneficiaries in each category will be calculated using the methods described in section 4.3, 4.4 and 4.5.

The baseline reference expenditure tables will be updated annually to reflect both:

- The baseline expenditures for each performance year's alignment-eligible beneficiaries; and
- The composition of the ACO's prospectively aligned beneficiary population for the performance year.

As with the ACO-specific baseline expenditure, the baseline reference expenditure will use the same 3-year base period for all performance years: CY2009 to CY2011. However, as the beneficiaries who are eligible for alignment will differ across performance years, the baseline reference expenditure will also differ across performance years.

5.2.1 Adjusted base period reference expenditure for alignment-eligible beneficiaries with base period eligibility

The adjusted base period reference expenditure for an ACO's beneficiaries who were eligible for alignment in at least one of the base years is calculated by:

(a) Calculating for each eligibility/age/sex category the average base period reference expenditure of alignment-eligible beneficiaries who were alignment-eligible in at least one base year;
(b) Identifying the number of the ACO's prospectively aligned beneficiaries who were eligible for alignment in at least one of the base years in an eligibility/age/sex category;
(c) Multiplying the number of such aligned beneficiaries in each eligibility/age/sex category by the average base period reference expenditure of alignment-eligible beneficiaries in the category;
(d) Summing across all eligibility/age/sex categories; and,
(e) Dividing by the total number of the ACO's prospectively aligned beneficiaries who were eligible for alignment in at least one of the base years.

The eligibility/age/sex category to which a beneficiary is assigned is determined by the beneficiary's eligibility category, age, and sex as of July 1st of the third alignment year.

5.2.2 Adjusted base period reference expenditure for alignment-eligible beneficiaries without base period eligibility

The adjusted base period reference expenditure for an ACO's beneficiaries who were not eligible for alignment in at least one of the base years is calculated by:

(a) Calculating for each eligibility/age/sex category the average base period reference expenditure of alignment-eligible beneficiaries who were not alignment-eligible in at least one base year;
(b) Identifying the number of the ACO's prospectively aligned beneficiaries who were not eligible for alignment in at least one of the base years in an eligibility/age/sex category;
(c) Multiplying the number of such aligned beneficiaries in each eligibility/age/sex category by the average base period reference expenditure of alignment-eligible beneficiaries in the category;
(d) Summing across all eligibility/age/sex categories; and,
(e) Dividing by the total number of the ACO's prospectively aligned beneficiaries who were not eligible for alignment in at least one of the base years.

The eligibility/age/sex category to which a beneficiary is assigned is determined by the beneficiary's eligibility category, age, and sex as of July 1st of the third alignment year.

5.2.3 Adjusted base period reference expenditure for alignment-eligible base period decedents

The adjusted baseline reference expenditure for an ACO's decedents is calculated by:

(a) Calculating for each eligibility/age/sex category the person-year-weighted average base period reference expenditure of all alignment-eligible decedents;
(b) Identifying the number of the ACO's baseline decedents in an eligibility/age/sex category;
(c) Multiplying the number of such baseline decedents in each eligibility/age/sex category by the average base period reference expenditure of alignment-eligible decedents in the category;
(d) Summing across all eligibility/age/sex categories; and,
(e) Dividing by the total number of the ACO's baseline decedents.

The eligibility/age/sex category to which a beneficiary is assigned is determined by the beneficiary's eligibility category, age, and sex as of July 1st of the third alignment year.

5.2.4 Combining the three components of the reference baseline

The ACO-specific baseline reference expenditure is calculated in five steps:

(a) Multiplying the ACO's adjusted base period reference expenditure for beneficiaries who were alignment-eligible in at least one base year by the number of person-years accrued by all alignment-eligible beneficiaries in the national reference population who were alignment-eligible in at least one base year;
(b) Multiplying the ACO's adjusted base period reference expenditure for beneficiaries who were not alignment-eligible in at least one base year by the number of person-years accrued by all alignment-eligible beneficiaries in the national reference population who were not alignment-eligible in at least one base year;
(c) Multiplying the ACO's adjusted base period reference expenditure for alignment-eligible base period decedents by the number of person-years accrued by all alignment-eligible base period decedents in the national reference population;
(d) Summing these three products; and,
(e) Dividing the resulting sum by the sum of the person-years accrued by all alignment-eligible beneficiaries in the national reference population (those who were alignment-eligible in at least one base year, those who were not alignment-eligible in at least one base year, and the alignment-eligible base period decedents).

The three components are weighted by the life-years accrued by the reference population in the third base year.

5.3 The ACO-specific performance year reference expenditure

The ACO-specific performance year reference expenditure is calculated in three steps:

(a) The adjusted performance year reference expenditure for the ACO's prospectively aligned beneficiaries who were alignment-eligible in at least one base year is calculated by:
    (1) For each eligibility/age/sex category, calculating the person-year-weighted average performance period reference expenditure of alignment-eligible beneficiaries who were alignment-eligible in at least one base year;
    (2) For each eligibility/age/sex category, calculating the number of person-years accrued during the performance year by the ACO's prospectively aligned beneficiaries who were eligible for alignment in at least one of the base years;
    (3) For each eligibility/age/sex category, multiplying the average expenditure by the number of person-years accrued;
    (4) Summing across all eligibility/age/sex categories; and,
    (5) Dividing by the total number of person-years accrued during the performance year by the ACO's prospectively aligned beneficiaries who were eligible for alignment in at least one of the base years.

(b) The adjusted performance year reference expenditure for the ACO's prospectively aligned beneficiaries who were not alignment-eligible in any base year is calculated by:
   (1) For each eligibility/age/sex category, calculating the person-year-weighted average performance period reference expenditure of alignment-eligible beneficiaries who were not alignment-eligible in any if the base years;
   (2) For each eligibility/age/sex category, calculating the number of person-years accrued during the performance year by the ACO's prospectively aligned beneficiaries who were not eligible for alignment in any of the base years;
   (3) For each eligibility/age/sex category, multiplying the average expenditure by the number of person-years accrued;
   (4) Summing across all eligibility/age/sex categories; and,
   (5) Dividing by the total number of person-years accrued during the performance year by the ACO's prospectively aligned beneficiaries who were not eligible for alignment in any of the base years.

(c) These two components are combined by:
   (1) Multiplying the ACO's adjusted performance period reference expenditure for beneficiaries who were alignment-eligible in at least one base year by the number of person-years accrued during the performance year by all alignment-eligible beneficiaries in the national reference population who were alignment-eligible in at least one base year;
   (2) Multiplying the ACO's adjusted performance period reference expenditure for beneficiaries who were not alignment-eligible in any base year by the number of person-years accrued during the performance year by all alignment-eligible beneficiaries in the national reference population who were not alignment-eligible any base year;
   (3) Summing these two products; and,
   (4) Dividing the resulting sum by the sum of the person-years accrued during the performance year by all alignment-eligible beneficiaries in the national reference population (those who were alignment-eligible in at least one base year and those who were not alignment-eligible in at least one base year).

In the third step, the two components are weighted by the life-years accrued by the reference population in the performance year.

6.0 Calculating the ACO performance year expenditure

The ACO's performance year expenditure is calculated as follows:

- Each prospectively aligned beneficiary's expenditure during the performance year is calculated.
- The beneficiary's expenditure is divided by the number of person-years accrued by the beneficiary during the performance year (i.e., the ratio of the number of months the performance year that the beneficiary was alive to 12) to calculate the beneficiary's annualized performance year expenditure.
- The annualized performance year expenditure is capped by applying the expenditure cap for the appropriate entitlement category (aged/disabled/ESRD).
- The capped annualized expenditure of all alignment-eligible beneficiaries is multiplied by the ratio of the number of months during the performance year that the beneficiary was alive to 12.
- The weighted, capped annualized expenditure for each beneficiary is summed and the result divided by the total person-years for all prospectively aligned beneficiaries.

The ACO's performance year expenditure per aligned beneficiary (technically per aligned beneficiary person-year) is then compared to the ACO-specific performance year benchmark to determine gross savings.

7.0 Tables Referenced in Text

Table 8-1
Alignment and baseline periods for Pioneer ACOs: 2012—2014

Period	Performance Years		
	Performance Year 1 (CY 2012)	Performance Year 2 (CY 2013)	Performance Year 3 (CY 2014)
Alignment	AY1: 7/1/2008 – 6/30/2009 AY2: 7/1/2009 – 6/30/2010 AY3: 7/1/2010 – 6/30/2011	AY3: 7/1/2009 – 6/30/2010 AY3: 7/1/2010 – 6/30/2011 AY3: 7/1/2011 – 6/30/2012	AY1: 7/1/2010 – 6/30/2011 AY2: 7/1/2011 – 6/30/2012 AY3: 7/1/2012 – 6/30/2013
Baseline	CY 2009[1] CY 2010[1] CY 2011	CY 2009[1] CY 2010[1] CY 2011	CY 2009[1] CY 2010[1] CY 2011

[1] The claims experience for the specified period will be trended forward to third base year, e.g., claims incurred during calendar year 2009 will be trended forward to calendar year 2011 by applying the growth in expenditures for the reference population.

Table 8-2
Evaluation and management service codes used in beneficiary alignment

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

Table 8-2
Evaluation and management service codes used in beneficiary alignment - continued

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

SOURCE: List of E&M Codes from the Medicare Shared Savings Program [SSP]. The Pioneer RFA states that for eligibility requirements, the intent is to have the Pioneer Model be consistent with the proposed regulations of the SSP.

Table 8-3
Specialty codes for primary care physicians

Code	Specialty
1	general practice
8	family practice
11	internal medicine
38	geriatric medicine
50	nurse practitioner
97	physician assistant

SOURCE: MSSP proposed regulations. The Pioneer RFA states that the primary care providers will consist of the primary care providers used in the MSSP program, as well as the addition of nurse practitioners and physician assistants.

Table 8-4
Specialty codes for specialist physicians

39 (nephrology)
Oncology:
83 (hematology/oncology)
90 (medical oncology)
91 (surgical oncology)
92 (radiation oncology)
98 (gynecological/oncology)
66 (rheumatology)
46 (endocrinology)
29 (pulmonology)
13 (neurology)
86 (neuropsychiatry)
6 (cardiology)

SOURCE: Pioneer RFA list of eligible specialties plus personal communication with CMS staff.

Table 8-5
Variables used in total beneficiary expenditure calculations

	Payment is Equal to	Claim Excluded if	Line Item Excluded if	Through Date
SNF	Claim Payment Amount	Any value for 'Claim Medicare Non-Payment reason code '	No exclusion	Claim Through Date
Inpatient[1]	Claim Payment Amount	Any value for 'Claim Medicare Non-Payment reason code '	No exclusion	Claim Through Date
Outpatient	Claim Payment Amount	Any value for 'Claim Medicare Non-Payment reason code '	No exclusion	Claim Through Date
Home Health	Claim Payment Amount	Any value for 'Claim Medicare Non-Payment reason code '	No exclusion	Claim Through Date
Physician/ Supplier Part B	Line NCH Payment Amount	'Carrier Claim Payment Denial Code' = 0 or D throughY	Line Processing Indicator Code ≠ A, R, or S	Line Through Date
DME	Line NCH Payment Amount	'Carrier Claim Payment Denial Code' = 0 or D through Y	Line Processing Indicator Code ≠ A, R, or S	Line Through Date
Hospice	Claim Payment Amount	Any value for 'Claim Medicare Non-Payment reason code'	No exclusion	Claim Through Date

[1]Inpatient expenditures will not include pass-through amounts.

Table 8-6
Schedule for Pioneer ACO beneficiary alignment and baseline reports
(Performance Year 1)

Date	Applies to PY	Event
September 30, 2011	PY1	Preliminary identification of aligned population for PY1 for purposes of (a) determining eligibility of ACO to participate in the Pioneer program and (b) generating a de-identified dataset for use by ACO in planning for PY1. This preliminary identification would be based on data for claims that were (a) incurred during the 3-year alignment period ending the June 30, 2011, and (b) paid through June 30, 2011 (i.e., no run-out of claims experience).
December 1, 2011	PY1	Identification of prospectively aligned population for PY1 based on data for claims that were (a) incurred during the 3-year alignment period ending the June 30, 2011, and (b) paid through September 30, 2011 (i.e., with a 3-month run-out of claims experience). This is the "official" list of prospectively aligned beneficiaries for PY1. It will differ from the preliminary list (provided only for PY1) as a result of the claims run-out.
May 1, 2012	PY1	Calculation of prospective PY1 baselines for the ACO's prospectively aligned PY1 population and for the PY1 reference population based on data for claims that were (a) incurred during the 3-year baseline period ending December 31, 2011, and (b) paid through March 31, 2012.
December 1, 2012	PY2	Identification of prospectively aligned population for PY2 based on data for claims that were (a) incurred during the 3-year alignment period ending the June 30, 2012, and (b) paid through September 30, 2012.
May 1, 2013	PY1	Identification of final PY1 aligned population (i.e., identification of PY1 prospectively aligned beneficiaries who were not alignment-eligible during PY1) and final PY1 reference population (i.e., identification of PY1 prospectively identified alignment-eligible beneficiaries who were not alignment-eligible during PY1).
May 1, 2013	PY2	Calculation of PY2 prospective baselines for the ACO's prospectively aligned PY2 population and for the PY2 reference population based on data for claims that were (a) incurred during the 3-year baseline period ending December 31, 2011, and (b) paid through March 31, 2012.

Table 8-7
Age and Sex Categories by Entitlement Category

Note: Each age category is divided into Male and Female.

Originally Aged beneficiaries without current ESRD

- Age 65 to 69
- Age 70 to 74
- Age 75 to 79
- Age 80 to 84
- Age 85 to 89
- Age 90 to 94
- Age 95 and older

Originally Disabled beneficiaries without current ESRD

- Age 0 to 34*
- Age 35 to 44*
- Age 45 to 54*
- Age 55 to 59*
- Age 60 to 64*
- Age 65 to 69
- Age 70 to 74
- Age 75 to 79
- Age 80 to 84
- Age 85 and older

* Any beneficiary under age 65 not currently identified as having ESRD will be classified as disabled.

Current ESRD

- Age 0 to 64
- Age 65 and older