

# Pioneer ACO Model Public Use Files / Research Identifiable Files Information Packet

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**Revision History**

Revision	Date	Revisions
1.01.01	03/01/2016	Initial Release
1.01.02	03/16/2016	Copy edits
1.01.03	04/07/2016	Correction of typographical errors in tables 4.1, 4.2 and 4.3 Addition of Appendix C. PUF File Layout
1.01.04	04/07/2016	Change name of the beneficiary identifier field to BENE_ID and revise definition in tables 5.2 and B.2.2
1.01.05	04/14/2016	Correction of typographical errors in tables 5.3 and B.3.1

## Reference documents

Document	Date	Title
<sup>1</sup>	03/26/2015	Pioneer ACO Alignment and Financial Reconciliation Methods, (Performance Years 1 through 3, Version 9.1)

<sup>1</sup> <https://innovation.cms.gov/Files/x/PioneerACOBmarkMethodology.pdf>

**Acronyms**

ACO	Accountable Care Organization
ACOPAC	ACO Program Analysis Contractor
CMMI	Center for Medicare & Medicaid Innovation
CMS	Centers for Medicare & Medicaid Services
IDR	Integrated Data Repository
PUF	Public Use File
RIF	Research Identifiable Files

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**1.0 Introduction**

The Public Use Files (PUF) and Research Identifiable Files (RIF) provide basic data that will enable research and policy analysts to conduct analysis of the experience and performance of participants in the Pioneer Accountable Care Organization (ACO) Model.

The PUF and RIF each consists of three data files for each performance year.

1. Data on Participating Providers
2. Data on Aligned Beneficiaries
3. Data on ACO Financial Performance

The PUF contains summarized data on Participating Providers and Aligned Beneficiaries. The RIF contains data that identify individual providers and beneficiaries.

**2.0 Data sources and methods**

The data used to create the PUF and RIF were obtained from several sources.

Participating Provider Data were obtained from the data submitted by Pioneer ACOs to CMMI and processed by the ACO Program Analysis Contractor (ACOPAC).

Beneficiary data, including data on the alignment of individual beneficiaries to Pioneer ACOs and demographic characteristics were obtained from the CMS Integrated Data Repository (IDR).

Expenditure data were obtained from the IDR.

Financial performance data were obtained from records maintained by the ACOPAC. Financial performance data, including baseline expenditures, expenditure benchmarks, and performance-year expenditures are created from data obtained from the IDR. Quality scores are created by the ACOPAC from data obtained from the IDR or submitted by the Pioneer ACOs.

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### 3.0 Definitions

#### 3.1 Participating Provider

A Pioneer ACO *Participating Provider* (also referred to as a *Participant*) is either:

1. A physician or non-physician practitioner; or
2. A facility or institutional provider.

A *Participating Provider* who is a practitioner is identified as a *Participating Provider* by the combination of the identifier for a *Participating Practice* and the identifier for a *Participating Practitioner*.

#### 3.4 Participating Practice

A *Participating Practice* is:

1. A “private” physician practice;
2. A Federally Qualified Health Center (FQHC);
3. A Rural Health Clinic (RHC); or,
4. A Critical Access Hospital that elects payment under Method 2 (CAH2).

A participating physician practice is identified by a Taxpayer Identification Number (TIN).

An FQHC, RHC, or CAH2 practice is identified by TIN, CMS Certification Number (CCN), and an organizational NPI.

#### 3.3 Institutional Practice

An *Institutional Practice* is a Federally Qualified Health Center (FQHC), a Rural Health Clinic (RHC), or a Critical Access Hospital that elects payment under Method 2 (CAH2).

#### 3.4 Participating Practitioner

A *Participating Practitioner* is a physician or non-physician practitioner (NPP) identified by an individual National Provider Identifier (NPI) who is a member of a participating practice. A practitioner may be a member of more than one practice and may participate in more than one Pioneer ACO.

#### 3.5 Participating Healthcare Facility

A *Participating Healthcare Facility* is an institutional provider. Examples of *Participating Healthcare Facilities* include but are not limited to: acute care hospitals, skilled nursing facilities (and units of acute hospitals including swing-beds), home health agencies, hospices, federally qualified health centers, rural health clinics, critical access hospitals, inpatient rehabilitation facilities, outpatient rehabilitation facilities, long-term care hospitals, psychiatric hospitals (and units of acute hospitals), dialysis facilities, and ambulatory surgical facilities.

**3.6 National Provider Identifier (NPI)**

The unique 10-character code issued by the National Plan and Provider Enumeration System (NPPES) that is used to identify either an organization or an individual on claims and other electronic transactions.

An *Organization NPI* identifies a facility or other organization such as a hospital, nursing facility, home health agency, dialysis facility, or physician practice.

An *Individual NPI* identifies an individual practitioner (i.e., a physician or non-physician practitioner such as a physician assistant).

**3.6 CMS Certification Number (CCN)**

A 6-character code issued by CMS when an institutional provide applies to become Medicare participating provider.

**3.7 Primary Care Specialist**

A primary care specialist is:

- A physician specializing in General Practice, Family Medicine, Internal Medicine, Geriatric Medicine;
- A Nurse Practitioner; or
- A Physician Assistant

## 4.0 Public Use Files (PUF)

### 4.1 Participating Provider Data

The Participating Provider data included in the PUF consists of the fields or variables described in Table 4.1.

**Table 4.1. Data on Participating Providers included in the PUF**

Field	Description
ACO_ID	Unique identifier of the Pioneer ACO
CMMI_NAME	Name of the Pioneer ACO
PRVDR_CT	Number of participating providers <sup>1</sup>
PRAC_CT	Total number of physician practices <sup>2</sup>
PROF_PRAC_CT	Total number of non-institutional physician practices <sup>3</sup>
INST_PRAC_CT	Number of institutional physician practices <sup>4</sup>
PROF_PRVDR_CT	Number of professional providers <sup>5</sup>
PAR_FAC_CT	Total number of participating health care facilities <sup>6</sup>
PCP_PRVDR_CT	Number of participating primary care specialists <sup>7</sup>

<sup>1</sup> A participating provider in the Pioneer ACO Model is defined as either an institutional provider (see footnote 2) identified by an organization NPI or a health care practitioner at a participating practice identified by a combination of a practice identifier (a TIN or CCN) and a practitioner identifier (the individual NPI).

<sup>2</sup> The number of participating institutional and non-institutional (“private”) physician practices.

<sup>3</sup> The number of participating non-institutional (“private”) physician practices.

<sup>4</sup> The number of participating institutional physician practices.

<sup>5</sup> The number of participating providers not including participating health care facilities

<sup>6</sup> The number of participating health care facilities that are not institutional physician practices.

<sup>7</sup> The number of participating providers who are primary care specialists. (Not reported for PY1)

### 4.2 Aligned Beneficiary Data

The Aligned Beneficiary data included in the PUF consists of the fields or variables described in Table 3.2.

**Table 4.2. Data on Aligned Beneficiaries included in the PUF**

Field	Description
ACO_ID	The identifier of the Pioneer ACO with which the beneficiary is aligned
ALGN_COUNT	The total number of performance-year aligned beneficiaries
AGED_COUNT	The number of performance-year aligned beneficiaries who were classified as Aged under the Pioneer ACO Model Benchmarking method
DISABLED_COUNT	The number of performance-year aligned beneficiaries who were classified as Aged under the Pioneer ACO Model Benchmarking method
ESRD_COUNT	The number of performance-year aligned beneficiaries who were classified as Aged under the Pioneer ACO Model Benchmarking method
MALE_COUNT	The number of performance-year aligned beneficiaries who were male
FEMALE_COUNT	The number of performance-year aligned beneficiaries who were female
AGE_LT65_COUNT	The number of performance-year aligned beneficiaries who were classified as under age 65 in the Pioneer ACO Model Benchmarking method
AGE_6569_COUNT	The number of performance-year aligned beneficiaries who were classified as 65 to 69 years of age in the Pioneer ACO Model Benchmarking method

Field	Description
AGE_7079_COUNT	The number of performance-year aligned beneficiaries who were classified as 70 to 79 years of age in the Pioneer ACO Model Benchmarking method
AGE_GE80	The number of performance-year aligned beneficiaries who were classified as 80 years of age or older in the Pioneer ACO Model Benchmarking method
EXP_TOT	Total expenditure for all claim types
EXP_NCH10	Total expenditure for home health agency services (NCH claim type 10) <sup>1</sup>
EXP_NCH20	Total expenditure for SNF services (NCH claim type 20) <sup>1</sup>
EXP_NCH30	Total expenditure for SNF/Swing-bed services (NCH claim type 30) <sup>1</sup>
EXP_NCH40	Total expenditure for outpatient services (NCH claim type 40) <sup>1</sup>
EXP_NCH50	Total expenditure for hospice services (NCH claim type 50) <sup>1</sup>
EXP_NCH60	Total expenditure for inpatient services (NCH claim type 60) <sup>1</sup>
EXP_NCH71	Total expenditure for physician non-DMEPOS services (NCH claim type 71) <sup>1</sup>
EXP_NCH72	Total expenditure for DMEPOS services non-DMAC (NCH claim type 72) <sup>1</sup>
EXP_NCH81	Total expenditure for DMEPOS services DMAC (NCH claim type 81) <sup>1</sup>
EXP_NCH82	Total expenditure for non-DMEPOS services DMAC (NCH claim type 82) <sup>1</sup>

<sup>1</sup> See table 5.2.1 for incurred and paid parameters. All expenditure fields are expenditures incurred in the performance year.

### 4.3 Pioneer ACO Financial Performance Data

The Pioneer ACO financial performance data included in the PUF consists of the fields or variables described in Table 3.3.

**Table 4.3. Content of Financial Performance RIF**

Field	Description
ACO_ID	The Pioneer ACO identifier
STLMNT_DT	A reference date identifying the financial settlement (CCYYMMDD)
ALGND_BENE_CT	The number of beneficiaries aligned with the Pioneer ACO in the year-end financial settlement
ALGND_BENE_MNTHS	The number of person-months accrued during the performance-year by the beneficiaries aligned with the Pioneer ACO
ACO_BASELINE_PBPY	The Pioneer ACO baseline expenditure <sup>1</sup> expressed on a per-beneficiary-per-year (PBPY) basis <sup>2</sup>
ADJ_REF_BASELINE_PBPY	The adjusted reference baseline <sup>1</sup> for the Pioneer ACO expressed on a PBPY basis <sup>2</sup>
ADJ_REF_PERFYEAR_PBPY	The adjusted reference performance-year expenditure <sup>1</sup> for the Pioneer ACO expressed on a PBPY basis <sup>2</sup>
REF_PBPY_CHNG	The difference between the adjusted reference baseline and the adjusted reference performance-year expenditure for the Pioneer ACO
REF_PBPY_TRND	The ratio of the difference between the adjusted reference baseline and the adjusted reference performance-year reference to the adjusted reference baseline for the Pioneer ACO
ACO_PBPY_TRND_CMPNT	The product of the adjusted reference trend (REF_PBPY_TRND) and the ACO baseline
ACO_BLND_PBPY_INCR	The simple average of the change in the adjusted reference expenditure (REF_PBPY_CHNG) and the product of the adjusted reference trend and the ACO baseline (ACO_PBPY_TRND_CMPNT)

<b>Field</b>	<b>Description</b>
ACO_BNMRK_PBPY	The ACO expenditure benchmark <sup>1</sup> expressed on a PBPY basis <sup>2</sup>
ACO_PERFYEAR_PBPY	The performance-year expenditure <sup>1</sup> of the Pioneer ACO expressed on a PBPY basis <sup>2</sup>
GROSS_SAVINGS_PBPY	The difference between the ACO benchmark and the ACO performance-year expenditure <sup>1</sup> expressed on a PBPY basis <sup>2</sup>
BNCHMRK_EXPEND	The aggregate expenditure benchmark <sup>1</sup> for the Pioneer ACO, equal to the product of ACO_BNMRK_PBPY and the aligned beneficiary person months that accrued during the performance-year
ACO_PERFYEAR_EXPND	The aggregate performance-year expenditure <sup>1</sup> of the Pioneer ACO
GROSS_SAVINGS	The difference between the aggregate expenditure benchmark and the performance-year expenditure <sup>1</sup> of the Pioneer ACO
PERFYEAR_QUAL_SCORE	The quality score attained by the Pioneer ACO in the performance year
QLTY_ADJ_SSL_RATE	The quality adjusted shared savings (or shared loss) rate of the Pioneer ACO
SHARED_SAVINGS	The shared savings (or loss) of the Pioneer ACO, equal to the product of the gross savings and the quality adjusted shared savings rate
BNCH_MTHD	The variant of the Pioneer benchmarking method elected by the Pioneer ACO in the performance year
AWI_GPCI_ADJ	The Area Wage Index/Geographic Practice Cost Index adjustment applicable to the Pioneer ACO in the performance year
RISK_ARNGMNT	The risk sharing arrangement selected by the Pioneer ACO in the performance year
MSR	The minimum savings rate selected by the Pioneer ACO for the performance year under its risk arrangement

<sup>1</sup> Baseline and performance year expenditures may be either capped or uncapped as specified in the Pioneer ACO agreement.

<sup>2</sup> See discussion of units of measurement.

## 5.0 Research Identifiable Files (RIF)

The Research Identifiable Files (RIF) contain beneficiary-level and provider-level data for the aligned beneficiaries and participating providers of each Pioneer ACO. These data allow an analyst to obtain additional data (by providing beneficiary and provider identifiers) to facilitate analysis of the impact of the ACO on expenditures and utilization. They also include data that facilitate linkage to the year-end financial settlement of the Pioneer ACO.

### 5.1 Participating Provider File

The RIF Participating Provider data includes the 10 fields or variables described in Table 4.1.

**Table 5.1. Content of Participating Provider RIF**

Field	Description
<b>ACO_ID</b>	Unique identifier of the Pioneer ACO
<b>ACO_NAME</b>	Name of the Pioneer ACO
<b>PRVDR_TYPE</b>	An indicator of whether the provider record identifies an institution or a professional.
<b>PRVDR_TIN</b>	The taxpayer identification number (TIN) of the participating provider, generally an employer identification number but may be (in the case of professionals) a social security number.
<b>TIN_NAME</b>	Legal name associated with the TIN.
<b>PRVDR_NPI</b>	The National Provider Identifier (NPI) for an individual (in the case of a record for a professional) or an organization (in the case of a record for an institution)
<b>PRVDR_CCN</b>	The CMS Certification Number of an institutional provider (when applicable and available)
<b>NPI_NAME</b>	Legal Name associated with the NPI. In the case of professionals, the NPI name is the last and first name of the professional. In the case of institutions, the NPI name is the name of the institution.
<b>PRVDR_SPCLTY</b>	An indicator of whether the provider was considered a primary care specialist for purposes of applying exclusivity rules
<b>ZIP_CD</b>	The zip code in which the provider principally practices (when applicable and available)

### 5.2 Aligned Beneficiary File

The RIF Aligned Beneficiary data includes the fields or variables described in Table 5.2. The data on aligned beneficiaries have two primary purposes: (1) to serve as a finder file; and (2) to provide data that are required by the Pioneer benchmarking method. Four types of data are included.

1. Beneficiary identifier, Pioneer ACO alignment, and alignment eligibility data
2. Beneficiary demographic characteristics

**Table 5.2. Content of Beneficiary RIF**

<b>Field</b>	<b>Description</b>
<b>BENE_ID</b>	A unique CCW beneficiary identifier field (BENE_ID) that is specific to the Chronic Condition Warehouse. This field is encrypted prior to delivery. The BENE_ID field is used to cross-reference data for each beneficiary across all claim and assessment data files.
<b>ACO_ID</b>	The identifier of the Pioneer ACO with which the beneficiary is aligned
<b>ELIG_CAT</b>	An indicator of whether the beneficiary was classified as Aged (A), Disabled (D), or ESRD (E) in the Pioneer benchmarking method
<b>EAS_CAT</b>	A four-character field identifying the specific eligibility-age-sex stratum to which the beneficiary was assigned in the Pioneer benchmarking method consisting of a character for the eligibility category, a character for beneficiary sex, and two characters giving the lower bound of the age category to which the beneficiary is assigned.
<b>SEX</b>	Male (M) or Female (F)
<b>DOB</b>	Date of birth
<b>DOD</b>	Date of death
<b>ALGN_ELIG_2009</b>	Beneficiary was eligible for alignment to a Pioneer ACO in CY2011
<b>ALGN_ELIG_2010</b>	Beneficiary was eligible for alignment to a Pioneer ACO in CY2011
<b>ALGN_ELIG_2011</b>	Beneficiary was eligible for alignment to a Pioneer ACO in CY2011
<b>ALGN_ELIG_2012</b>	Beneficiary was eligible for alignment to a Pioneer ACO in CY2012 <sup>2</sup>
<b>ALGN_ELIG_2013</b>	Beneficiary was eligible for alignment to a Pioneer ACO in CY2013 <sup>3</sup>
<b>BENE_CTY_CD</b>	SSA 5-character county code for the beneficiary's county-of-residence in January of the performance year
<b>EXP_NCH10</b>	Total expenditure for home health agency services (NCH claim type 10) <sup>1</sup>
<b>EXP_NCH20</b>	Total expenditure for SNF services (NCH claim type 20) <sup>1</sup>
<b>EXP_NCH30</b>	Total expenditure for SNF/Swing-bed services (NCH claim type 30) <sup>1</sup>
<b>EXP_NCH40</b>	Total expenditure for outpatient services (NCH claim type 40) <sup>1</sup>
<b>EXP_NCH50</b>	Total expenditure for hospice services (NCH claim type 50) <sup>1</sup>
<b>EXP_NCH60</b>	Total expenditure for inpatient services (NCH claim type 60) <sup>1</sup>
<b>EXP_NCH71</b>	Total expenditure for physician non-DMEPOS services (NCH claim type 71) <sup>1</sup>
<b>EXP_NCH72</b>	Total expenditure for DMEPOS services non-DMAC (NCH claim type 72) <sup>1</sup>
<b>EXP_NCH81</b>	Total expenditure for DMEPOS services DMAC (NCH claim type 81) <sup>1</sup>
<b>EXP_NCH82</b>	Total expenditure for non-DMEPOS services DMAC (NCH claim type 82) <sup>1</sup>

<sup>1</sup> See table 5.2.1 for incurred and paid parameters. All expenditure fields are expenditures incurred in the performance year.

<sup>2</sup> Available only for beneficiaries aligned in PY2.

<sup>3</sup> Available only for beneficiaries aligned in PY3

### 5.2.1 Incurred and paid parameters for performance year expenditure

The total expenditure that is reported for each beneficiary is the expenditure for covered services incurred during the performance-year and paid within three months of the end of the performance year. (See table 5.2.1.) The total expenditure for which a Pioneer ACO is at risk is calculated differently in each performance year.

**Table 5.2.1. Incurred and paid parameter for performance year expenditure**

Performance Year	Claim incurred date	Claim paid date
PY1/CY2012	01/01/2012 through 12/31/2012, inclusive	Prior to 04/01/2013
PY2/CY2013	01/01/2013 through 12/31/2013, inclusive	Prior to 04/01/2014
PY3/CY2014	01/01/2014 through 12/31/2014, inclusive	Prior to 04/01/2015

**5.2.2 Definition of “at-risk” expenditure in 1<sup>st</sup> performance year**

In PY1/CY2012, the total expenditure for which a Pioneer ACO is at risk in both the base and performance year is simply amount paid to the provider of service on claims for covered services.

**5.2.3 Definition of “at-risk” expenditure in 2<sup>nd</sup> performance year**

In PY2/CY2013, the total expenditure for which a Pioneer ACO is at-risk in the performance year:

1. The amount paid to the provider of service on claims for covered services;
2. PLUS: The budget sequestration amount withheld from the provider payment;
3. LESS: The uncompensated care payment amount on inpatient claims; and,
4. PLUS: The population-based-payment (PBP) reduction (if any) made to the provider payment.

In PY2/CY2013, the total expenditure for which a Pioneer ACO at-risk in the base year:

1. The amount paid to the provider of service on claims for covered services;
2. PLUS: The budget sequestration amount withheld from the provider payment;
3. LESS: The uncompensated care payment amount on inpatient claims;
4. LESS: 75% of the operating disproportionate share hospital payment on inpatient claims incurred prior to October 1 of the year; and,
5. PLUS: The population-based-payment (PBP) reduction (if any) made to the provider payment.

**5.2.4 Definition of “at-risk” expenditure in 3<sup>rd</sup> performance year**

In PY3/CY2014, the total expenditure for which a Pioneer ACO is at-risk in the performance year:

1. The amount paid to the provider of service on claims for covered services;
2. PLUS: The budget sequestration amount withheld from the provider payment;
3. LESS: The uncompensated care payment amount on inpatient claims; and,
4. PLUS: The population-based-payment (PBP) reduction (if any) made to the provider payment.

In PY3/CY2014, the total expenditure for which a Pioneer ACO is at-risk in the base year:

1. The amount paid to the provider of service on claims for covered services;
2. PLUS: The budget sequestration amount withheld from the provider payment;
3. LESS: The uncompensated care payment amount on inpatient claims;
4. LESS: 75% of the operating disproportionate share hospital payment on inpatient claims incurred in any month of the year (for claims incurred prior to CY2013) or incurred prior to October 1, 2013 (for claims incurred during CY2013); and,

5. PLUS: The population-based-payment (PBP) reduction (if any) made to the provider payment.

Under the Pioneer ACO Model, the expenditure included in a base or performance year is developed using the so-called “debit/credit” method. It does not use the so-called “final action” method. Under the “final action” method, the total expenditure incurred by a beneficiary is the sum of the payment amount on all claims that as of the end of the run-out period for the calendar year represented the last or “final” action taken on a claim incurred during the calendar year. Under the debit/credit method the expenditure is the sum of all claim transactions, including original claims, cancellation claims, and adjustment claims that were processed prior to the end of the run-out period for the calendar year. The incurred date for a claim is the through date on the claim header (in the case of claim types 10 through 60) and the through date on the claim line-item (in the case of claim types 71, 72, 81 and 82). The paid date is the NCH weekly processing date (also referred to as the claim effective date).

### 5.3 Pioneer ACO Financial Performance File

The Pioneer ACO Financial Performance File contains the basic data for the performance year financial settlement. It includes the 27 fields described in table 5.3.

**Table 5.3. Content of Financial Performance RIF**

Field	Description
PERF_YEAR	The performance year to which the settlement data apply
STLMNT_DT	A reference date identifying the financial settlement (CCYYMMDD)
ACO_ID	The Pioneer ACO identifier
PIONEER_NAME	Short name of the Pioneer ACO
ALGND_BENE_CT	The number of beneficiaries aligned with the Pioneer ACO in the year-end financial settlement
ALGND_BENE_MNTHS	The number of person-months accrued during the performance-year by the beneficiaries aligned with the Pioneer ACO
ACO_BASELINE_PBPY	The Pioneer ACO baseline expenditure <sup>1</sup> expressed on a per-beneficiary-per-year (PBPY) basis <sup>2</sup>
ADJ_REF_BASELINE_PBPY	The adjusted reference baseline <sup>1</sup> for the Pioneer ACO expressed on a PBPY basis <sup>2</sup>
ADJ_REF_PERFYEAR_PBPY	The adjusted reference performance-year expenditure <sup>1</sup> for the Pioneer ACO expressed on a PBPY basis <sup>2</sup>
REF_PBPY_CHNG	The difference between the adjusted reference baseline and the adjusted reference performance-year expenditure for the Pioneer ACO
REF_PBPY_TRND	The ratio of the difference between the adjusted reference baseline and the adjusted reference performance-year reference to the adjusted reference baseline for the Pioneer ACO
ACO_PBPY_TRND_CMPNT	The product of the adjusted reference trend (REF_PBPY_TRND) and the ACO baseline
ACO_BLND_PBPY_INCR	The simple average of the change in the adjusted reference expenditure (REF_PBPY_CHNG) and the product of the adjusted reference trend and the ACO baseline (ACO_PBPY_TRND_CMPNT)
ACO_BNMRK_PBPY	The ACO expenditure benchmark <sup>1</sup> expressed on a PBPY basis <sup>2</sup>

Field	Description
ACO_PERFYEAR_PBPY	The performance-year expenditure <sup>1</sup> of the Pioneer ACO expressed on a PBPY basis <sup>2</sup>
GROSS_SAVINGS_PBPY	The difference between the ACO benchmark and the ACO performance-year expenditure <sup>1</sup> expressed on a PBPY basis <sup>2</sup>
BNCHMRK_EXPEND	The aggregate expenditure benchmark <sup>1</sup> for the Pioneer ACO, equal to the product of ACO_BNMRK_PBPY and the aligned beneficiary person months that accrued during the performance-year
ACO_PERFYEAR_EXPND	The aggregate performance-year expenditure <sup>1</sup> of the Pioneer ACO
GROSS_SAVINGS	The difference between the aggregate expenditure benchmark and the performance-year expenditure <sup>1</sup> of the Pioneer ACO
PERFYEAR_QUAL_SCORE	The quality score attained by the Pioneer ACO in the performance year
QLTY_ADJ_SSL_RATE	The quality adjusted shared savings (or shared loss) rate of the Pioneer ACO
SHARED_SAVINGS	The shared savings (or loss) of the Pioneer ACO, equal to the product of the gross savings and the quality adjusted shared savings rate
BNCH_MTHD	The variant of the Pioneer benchmarking method elected by the Pioneer ACO in the performance year
AWI_GPCI_ADJ	The Area Wage Index/Geographic Practice Cost Index adjustment applicable to the Pioneer ACO in the performance year
RISK_ARNGMNT	The risk sharing arrangement selected by the Pioneer ACO in the performance year
MSR	The minimum savings rate selected by the Pioneer ACO for the performance year under its risk arrangement

<sup>1</sup> Baseline and performance year expenditures may be either capped or uncapped as specified in the Pioneer ACO agreement.

<sup>2</sup> See discussion of units of measurement.

Table 5.3.1 describes the four benchmarking method variants available to Pioneer ACOs.

**Table 5.3.1. Pioneer ACO Model Benchmarking Methods**

Method	Description
1	Capped expenditures using actual ACO baseline decedent experience
2	Uncapped expenditures using actual ACO baseline decedent experience
3	Capped expenditures using imputed ACO baseline decedent adjustment
4	Uncapped expenditures using imputed ACO baseline decedent adjustment
5	Capped expenditures using actual ACO baseline decedent experience and the performance-year 1 reference decedent adjustment method <sup>1</sup>
6	Uncapped expenditures using actual ACO baseline decedent experience and the performance-year 1 reference decedent adjustment method <sup>1</sup>

<sup>1</sup> Applies to 1<sup>st</sup> performance year only.

**Appendix A. Provider Specialty Codes****Table A-1. CMS specialty codes used for alignment based on primary care specialists**

<b>CMS Specialty Code</b>	<b>Specialty</b>
01	General Practice
08	Family Medicine
11	Internal Medicine
38	Geriatric Medicine
50	Nurse Practitioner
97	Physician Assistant

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

## Appendix B. RIF File Layouts

All RIF files are comma separated value text files and include a header row containing the field name.

### B.1 Provider RIF

**Table 5.1. Content of Participating Provider RIF**

Field	Data Type	Values
ACO_ID	Text	
ACO_NAME	Text	
PRVDR_TYPE	Text	'Institutional' indicates the record identifies a provider <sup>2</sup> 'Professional' indicates the record identifies a supplier <sup>3</sup>
PRVDR_TIN <sup>1</sup>	Text	
TIN_NAME	Text	'NA' indicates that a TIN name was not submitted by the ACO
PRVDR_NPI	Text	
PRVDR_CCN <sup>1</sup>	Text	
NPI_NAME	Text	
PRVDR_SPCLTY	Text	'N' indicates a non-primary care specialist 'Y' indicates a primary care specialist <sup>4</sup>
ZIP_CD <sup>1</sup>	Text	

<sup>1</sup> This field uses only numeric characters and may begin with a zero. In the CSV file, leading zeros are present. If these files are opened in Excel (or other spreadsheet programs the leading zero will be dropped as the value will be displayed as a number not text.

<sup>2</sup> A provider is an institution such as a hospital, SNF, home health agency, or hospice.

<sup>3</sup> A supplier is a professional, either a physician or non-physician practitioner.

<sup>4</sup> The primary care specialist flag is not set for PY1 providers. It should be noted that the primary care specialist flag is used solely to apply rules governing whether a provider may be listed as a participating provider by more than one Pioneer ACO.

### B.2 Beneficiary RIF

**Table B.2.2 Content of Beneficiary RIF**

Field	Format	Values
BENE_ID	Numeric	A unique CCW beneficiary identifier field (BENE_ID) that is specific to the Chronic Condition Warehouse. This field is encrypted prior to delivery. The BENE_ID field is used to cross-reference data for each beneficiary across all claim and assessment data files.
ACO_ID	Text	
ELIG_CAT	Text	'A' = Aged 'D' = Disabled 'E' = ESRD
EAS_CAT	Text	See table B.2.2
SEX	Text	'F' = Female 'M' = Male
DOB	Text	Format is DDMMMCCYY
DOD	Text	Format is DDMMMCCYY

Field	Format	Values
<b>ALGN_ELIG_2009</b>	Integer	0 = Not alignment-eligible in CY2009 1= Alignment-eligible in CY2009
<b>ALGN_ELIG_2010</b>	Integer	0 = Not alignment-eligible in CY2010 1= Alignment-eligible in CY2010
<b>ALGN_ELIG_2011</b>	Integer	0 = Not alignment-eligible in CY2011 1= Alignment-eligible in CY2011
<b>ALGN_ELIG_2012<sup>1</sup></b>	Integer	0 = Not alignment-eligible in CY2012 1= Alignment-eligible in CY2012
<b>ALGN_ELIG_2013<sup>2</sup></b>	Integer	0 = Not alignment-eligible in CY2013 1= Alignment-eligible in CY2013
<b>BENE_CTY_CD</b>	Text	Five character Social Security Administration county code
<b>EXP_NCH10<sup>3</sup></b>	Currency	
<b>EXP_NCH20<sup>3</sup></b>	Currency	
<b>EXP_NCH30<sup>3</sup></b>	Currency	
<b>EXP_NCH40<sup>3</sup></b>	Currency	
<b>EXP_NCH50<sup>3</sup></b>	Currency	
<b>EXP_NCH60<sup>3</sup></b>	Currency	
<b>EXP_NCH71<sup>3</sup></b>	Currency	
<b>EXP_NCH72<sup>3</sup></b>	Currency	
<b>EXP_NCH81<sup>3</sup></b>	Currency	
<b>EXP_NCH82<sup>3</sup></b>	Currency	

<sup>1</sup> Available only for beneficiaries aligned in PY2.

<sup>2</sup> Available only for beneficiaries aligned in PY3

<sup>3</sup> See table 5.2.1 for incurred and paid parameters. All expenditure fields are expenditures incurred in the performance year.

**Table B.2.2. Eligibility-Age-Sex stratification**

EAS_CAT Code	Description
AF65	Aged: Female: Age 65 to 69
AF70	Aged: Female: Age 70 to 74
AF75	Aged: Female: Age 75 to 79
AF80	Aged: Female: Age 80 to 84
AF85	Aged: Female: Age 85 to 89
AF90	Aged: Female: Age 90 to 94
AF95	Aged: Female: Age 95+
AM65	Aged: Male: Age 65 to 69
AM70	Aged: Male: Age 70 to 74
AM75	Aged: Male: Age 75 to 79
AM80	Aged: Male: Age 80 to 84
AM85	Aged: Male: Age 85 to 89
AM90	Aged: Male: Age 90 to 94
AM95	Aged: Male: Age 95+
DF00	Disabled: Female: Age 0 to 34
DF35	Disabled: Female: Age 35 to 44
DF45	Disabled: Female: Age 45 to 54

EAS_CAT Code	Description
DF55	Disabled: Female: Age 55 to 59
DF60	Disabled: Female: Age 60 to 64
DF65	Disabled: Female: Age 65 to 69
DF70	Disabled: Female: Age 70 to 74
DF75	Disabled: Female: Age 75 to 79
DF80	Disabled: Female: Age 80 to 84
DF85	Disabled: Female: Age 85+
DM00	Disabled: Male: Age 0 to 34
DM35	Disabled: Male: Age 35 to 44
DM45	Disabled: Male: Age 45 to 54
DM55	Disabled: Male: Age 55 to 59
DM60	Disabled: Male: Age 60 to 64
DM65	Disabled: Male: Age 65 to 69
DM70	Disabled: Male: Age 70 to 74
DM75	Disabled: Male: Age 75 to 79
DM80	Disabled: Male: Age 80 to 84
DM85	Disabled: Male: Age 85+
EF00	ESRD: Female: Age <65
EF65	ESRD: Female: Age 65+
EM00	ESRD: Male: Age <65
EM65	ESRD: Male: Age 65+

### B.3 Financial RIF

**Table B.3.1 Content of Financial Performance RIF**

Field	Format	Values
PERF_YEAR	Text	
STLMNT_DT	Numeric	Integer in format CCYYMMDD
ACO_ID	Text	
PIONEER_NAME	Text	
ALGND_BENE_CT	Numeric	
ALGND_BENE_MNTHS	Numeric	
ACO_BASELINE_PBPY <sup>1</sup>	Currency	
ADJ_REF_BASELINE_PBPY <sup>1</sup>	Currency	
ADJ_REF_PERFYEAR_PBPY <sup>1</sup>	Currency	
REF_PBPY_CHNG <sup>1</sup>	Currency	
REF_PBPY_TRND	Numeric	Decimal representation of percentage (0.05 = 5%)
ACO_PBPY_TRND_CMPNT <sup>1</sup>	Currency	
ACO_BLND_PBPY_INCR <sup>1</sup>	Currency	
ACO_BNMRK_PBPY <sup>1</sup>	Currency	

Field	Format	Values
ACO_PERFYEAR_PBPY <sup>1</sup>	Currency	
GROSS_SAVINGS_PBPY	Currency	
BNCHMRK_EXPEND	Currency	
ACO_PERFYEAR_EXPND	Currency	
GROSS_SAVINGS	Currency	
PERFYEAR_QUAL_SCORE	Numeric	Decimal representation of percentage (0.75 = 75%)
QLTY_ADJ_SSL_RATE	Numeric	Decimal representation of percentage (0.60 = 60%)
SHARED_SAVINGS	Currency	
BNCH_MTHD <sup>2</sup>	Integer	1 = Benchmark Method 1 2 = Benchmark Method 2 3 = Benchmark Method 3 4 = Benchmark Method 4 5 = Benchmark Method 5 6 = Benchmark Method 6
AWI_GPCI_ADJ	Numeric	
RISK_ARNGMNT	Text	Core Core A Core B Alt 1 Alt 2
MSR	Numeric	

<sup>1</sup> Baseline and performance year expenditures may be either capped or uncapped as specified in the Pioneer ACO agreement.

<sup>2</sup> Benchmark methods are described in table B.3.2.

<sup>3</sup> Risk arrangements are described in materials available on the CMMI website.

**Table B.3.2. Pioneer Benchmarking Methods**

Method	Used in...	Description
1	All years	Capped benchmark using PY2 reference decedent adjustment method and actual baseline mortality experience <sup>1</sup>
2	All years	Uncapped benchmark using PY2 reference decedent adjustment method and actual baseline mortality experience <sup>1</sup>
3	PY3 only	Capped benchmark using PY2 reference decedent adjustment method and imputed baseline mortality experience <sup>1</sup>
4	PY3 only	Uncapped benchmark using PY2 reference decedent adjustment method and imputed baseline mortality experience <sup>1</sup>
5	PY1 only	Capped benchmark using PY1 reference decedent adjustment method <sup>1</sup>
6	PY1 only	Uncapped benchmark using PY1 reference decedent adjustment method <sup>1</sup>

<sup>2</sup> See description of benchmarking methods for PY1 through PY3.

## Appendix C. PUF File Layout

Table B.1. PUF Fields and Descriptions

Field	Description <sup>1</sup>
ACO_ID	Unique identifier of the Pioneer ACO
CMMI_NAME	Name of the Pioneer ACO
PRVDR_CT	Number of participating providers
PRAC_CT	Total number of physician practices
PROF_PRAC_CT	Total number of non-institutional physician practices
INST_PRAC_CT	Number of institutional physician practices
PROF_PRVDR_CT	Number of professional providers
PAR_FAC_CT	Total number of participating health care facilities
PCP_PRVDR_CT	Number of participating primary care specialists
ALGN_COUNT	The total number of performance-year aligned beneficiaries
AGED_COUNT	The number of performance-year aligned beneficiaries who were classified as Aged under the Pioneer ACO Model Benchmarking method
DISABLED_COUNT	The number of performance-year aligned beneficiaries who were classified as Aged under the Pioneer ACO Model Benchmarking method
ESRD_COUNT	The number of performance-year aligned beneficiaries who were classified as Aged under the Pioneer ACO Model Benchmarking method
MALE_COUNT	The number of performance-year aligned beneficiaries who were male
FEMALE_COUNT	The number of performance-year aligned beneficiaries who were female
AGE_LT65_COUNT	The number of performance-year aligned beneficiaries who were classified as under age 65 in the Pioneer ACO Model Benchmarking method
AGE_6569_COUNT	The number of performance-year aligned beneficiaries who were classified as 65 to 69 years of age in the Pioneer ACO Model Benchmarking method
AGE_7079_COUNT	The number of performance-year aligned beneficiaries who were classified as 70 to 79 years of age in the Pioneer ACO Model Benchmarking method
AGE_GE80	The number of performance-year aligned beneficiaries who were classified as 80 years of age or older in the Pioneer ACO Model Benchmarking method
EXP_TOT	Total expenditure for all claim types
EXP_NCH10	Total expenditure for home health agency services (NCH claim type 10)
EXP_NCH20	Total expenditure for SNF services (NCH claim type 20)
EXP_NCH30	Total expenditure for SNF/Swing-bed services (NCH claim type 30)
EXP_NCH40	Total expenditure for outpatient services (NCH claim type 40)
EXP_NCH50	Total expenditure for hospice services (NCH claim type 50)
EXP_NCH60	Total expenditure for inpatient services (NCH claim type 60)
EXP_NCH71	Total expenditure for physician non-DMEPOS services (NCH claim type 71)
EXP_NCH72	Total expenditure for DMEPOS services non-DMAC (NCH claim type 72)
EXP_NCH81	Total expenditure for DMEPOS services DMAC (NCH claim type 81)

Field	Description <sup>1</sup>
<b>EXP_NCH82</b>	Total expenditure for non-DMEPOS services DMAC (NCH claim type 82)
<b>STLMNT_DT</b>	A reference date identifying the financial settlement (CCYYMMDD)
<b>ALGND_BENE_CT</b>	The number of beneficiaries aligned with the Pioneer ACO in the year-end financial settlement
<b>ALGND_BENE_MNTHS</b>	The number of person-months accrued during the performance-year by the beneficiaries aligned with the Pioneer ACO
<b>ACO_BASELINE_PBPY</b>	The Pioneer ACO baseline expenditure expressed on a per-beneficiary-per-year (PBPY) basis
<b>ADJ_REF_BASELINE_PBPY</b>	The adjusted reference baseline for the Pioneer ACO expressed on a PBPY basis
<b>ADJ_REF_PERFYEAR_PBPY</b>	The adjusted reference performance-year expenditure for the Pioneer ACO expressed on a PBPY basis
<b>REF_PBPY_CHNG</b>	The difference between the adjusted reference baseline and the adjusted reference performance-year expenditure for the Pioneer ACO
<b>REF_PBPY_TRND</b>	The ratio of the difference between the adjusted reference baseline and the adjusted reference performance-year reference to the adjusted reference baseline for the Pioneer ACO
<b>ACO_PBPY_TRND_CMPNT</b>	The product of the adjusted reference trend (REF_PBPY_TRND) and the ACO baseline
<b>ACO_BLND_PBPY_INCR</b>	The simple average of the change in the adjusted reference expenditure (REF_PBPY_CHNG) and the product of the adjusted reference trend and the ACO baseline (ACO_PBPY_TRND_CMPNT)
<b>ACO_BNMRK_PBPY</b>	The ACO expenditure benchmark expressed on a PBPY basis
<b>ACO_PERFYEAR_PBPY</b>	The performance-year expenditure of the Pioneer ACO expressed on a PBPY basis
<b>GROSS_SAVINGS_PBPY</b>	The difference between the ACO benchmark and the ACO performance-year expenditure expressed on a PBPY basis
<b>BNCHMRK_EXPEND</b>	The aggregate expenditure benchmark for the Pioneer ACO, equal to the product of ACO_BNMRK_PBPY and the aligned beneficiary person months that accrued during the performance-year
<b>ACO_PERFYEAR_EXPND</b>	The aggregate performance-year expenditure of the Pioneer ACO
<b>GROSS_SAVINGS</b>	The difference between the aggregate expenditure benchmark and the performance-year expenditure of the Pioneer ACO
<b>PERFYEAR_QUAL_SCRE</b>	The quality score attained by the Pioneer ACO in the performance year
<b>QLTY_ADJ_SSL_RATE</b>	The quality adjusted shared savings (or shared loss) rate of the Pioneer ACO
<b>SHARED_SAVINGS</b>	The shared savings (or loss) of the Pioneer ACO, equal to the product of the gross savings and the quality adjusted shared savings rate
<b>BNCH_MTHD</b>	The variant of the Pioneer benchmarking method elected by the Pioneer ACO in the performance year
<b>AWI_GPCI_ADJ</b>	The Area Wage Index/Geographic Practice Cost Index adjustment applicable to the Pioneer ACO in the performance year
<b>RISK_ARNGMNT</b>	The risk sharing arrangement selected by the Pioneer ACO in the performance year

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<b>Field</b>	<b>Description<sup>1</sup></b>
<b>MSR</b>	The minimum savings rate selected by the Pioneer ACO for the performance year under its risk arrangement

<sup>1</sup> See tables 4.1, 4.2 and 4.3.