



CMS Implementation Guide for Quality Reporting Document Architecture Category III

Eligible Clinicians and Eligible Professionals Programs

Implementation Guide for 2018

Version 2 (updated 07/27/2018)

Published Date: 11/27/2017

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QRDA-III STU R2.1 CMS Implementation Guide for Eligible Clinicians and Eligible Professionals Programs

1 Introduction

1.1 Overview

The Health Level Seven International (HL7) Quality Reporting Document Architecture (QRDA) defines constraints on the HL7 Clinical Document Architecture Release 2 (CDA R2). QRDA is a standard document format for the exchange of electronic clinical quality measure (eCQM) data. QRDA reports contain data extracted from electronic health records (EHRs) and other information technology systems. The reports are used for the exchange of eCQM data between systems for quality measurement and reporting programs.

This QRDA guide contains the Centers for Medicare & Medicaid Services (CMS) supplemental implementation guide to the *HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture, Category III, STU Release 2.1¹ (June, 2017)* for the 2018 performance period. This HL7 base standard is referred to as the HL7 QRDA-III STU R2.1.

1.2 Organization of the Guide

This implementation guide contains the following chapters:

- Chapter 1: Introduction
- Chapter 2: Conformance Conventions Used in This Guide — describes the formal representation of templates and additional information necessary to understand and correctly implement the content found in this guide
- Chapter 3: Overview
- Chapter 4: QRDA Category III Submission Rules — includes guidelines for submissions under the Comprehensive Primary Care Plus (CPC+), and the Merit-Based Incentive Payment System (MIPS) Program
- Chapter 5: QRDA Category III Validation — contains the formal definitions for the QRDA Category III report for the CMS Eligible Clinicians and Eligible Professionals Programs:
 - Document-level template that defines the document type and header constraints specific to CMS reporting
 - Section-level templates that define measure reporting and reporting parameters
 - Entry-level templates that define entry templates
- Chapter 6: eCQM UUID List
- Chapter 7: Measure Identifiers

APPENDIX

¹ [HL7 QRDA III STU R2.1.
http://www.hl7.org/documentcenter/public/standards/dstu/CDAR2_IG_QRDAIII_R1_STU_R2.1_2017JUL.zip](http://www.hl7.org/documentcenter/public/standards/dstu/CDAR2_IG_QRDAIII_R1_STU_R2.1_2017JUL.zip)

- Chapters 8-15 provide references, resources, and several change logs including a list of all changes made to the HL7 QRDA-III STU R2.1 to produce this CMS Implementation Guide

2 Conformance Conventions Used in This Guide

2.1 Conformance Verbs (Keywords)

The keywords **SHALL**, **SHOULD**, **MAY**, **NEED NOT**, **SHOULD NOT**, and **SHALL NOT** in this guide are to be interpreted as follows:

- **SHALL**: an absolute requirement for the particular element. Where a **SHALL** constraint is applied to an Extensible Markup Language (XML) element, that element must be present in an instance, but may have an exceptional value (i.e., may have a `nullFlavor`), unless explicitly precluded. Where a **SHALL** constraint is applied to an XML attribute, that attribute must be present, and must contain a conformant value.
- **SHALL NOT**: an absolute prohibition against inclusion.
- **SHOULD/SHOULD NOT**: best practice or recommendation. There may be valid reasons to ignore an item, but the full implications must be understood and carefully weighed before choosing a different course.
- **MAY/NEED NOT**: truly optional; can be included or omitted as the author decides with no implications.

2.2 Cardinality

The cardinality indicator (0..1, 1..1, 1..*, etc.) specifies the allowable occurrences within a document instance. The cardinality indicators are interpreted with the following format "[m...n]" where m represents the least and n the most:

- 0..1 zero or one
- 1..1 exactly one
- 1..* at least one
- 0..* zero or more
- 1..n at least one and not more than n

When a constraint has subordinate clauses, the scope of the cardinality of the parent constraint must be clear. In Figure 1, the constraint says exactly one participant is to be present. The subordinate constraint specifies some additional characteristics of that participant.

Figure 1: Constraints Format – only one allowed

1. **SHALL** contain exactly one [1..1] **participant** (CONF:2777).
 - a. This participant **SHALL** contain exactly one [1..1]
 - @**typeCode**="LOC" (CodeSystem: 2.16.840.1.113883.5.90 HL7ParticipationType) (CONF:2230).

In Figure 2, the constraint says only one participant “like this” is to be present. Other participant elements are not precluded by this constraint.

Figure 2: Constraints Format – only one like this allowed

1. **SHALL** contain exactly one [1..1] **participant** (CONF:2777) such that it
 - a. **SHALL** contain exactly one [1..1] **@typeCode="LOC"** (CodeSystem: 2.16.840.1.113883.5.90 HL7ParticipationType) (CONF:2230).

2.3 Null Flavor

Information technology solutions store and manage data, but sometimes data are not available; an item may be unknown, not relevant, or not computable or measureable. In HL7, a flavor of null, or `nullFlavor`, describes the reason for missing data.

Figure 3: nullFlavor Example

```
<raceCode nullFlavor="ASKU"/>
<!--coding a raceCode when the patient declined to specify his/her
race-->

<raceCode nullFlavor="UNK"/>
<!--coding a raceCode when the patient's race is unknown-->
```

Use null flavors for unknown, required, or optional attributes:

- **NI** No information. This is the most general and default null flavor.
- **NA** Not applicable. Known to have no proper value (e.g., last menstrual period for a male).
- **UNK** Unknown. A proper value is applicable, but is not known.
- **ASKU** Asked, but not known. Information was sought, but not found (e.g., the patient was asked but did not know).
- **NAV** Temporarily unavailable. The information is not available, but is expected to be available later.
- **NASK** Not asked. The patient was not asked.
- **MSK** There is information on this item available but it has not been provided by the sender due to security, privacy, or other reasons. There may be an alternate mechanism for gaining access to this information.
- **OTH** The actual value is not and will not be assigned a standard coded value. An example is the name or identifier of a clinical trial.

This list contains those null flavors that are commonly used in clinical documents. For the full list and descriptions, see the `nullFlavor` vocabulary domain in the in the HL7 standard, *Clinical Document Architecture, Release 2.0*.

Any **SHALL** conformance statement may use `nullFlavor`, unless the attribute is required or the `nullFlavor` is explicitly disallowed. **SHOULD** and **MAY** conformance statements may also use `nullFlavor`.

3 Overview

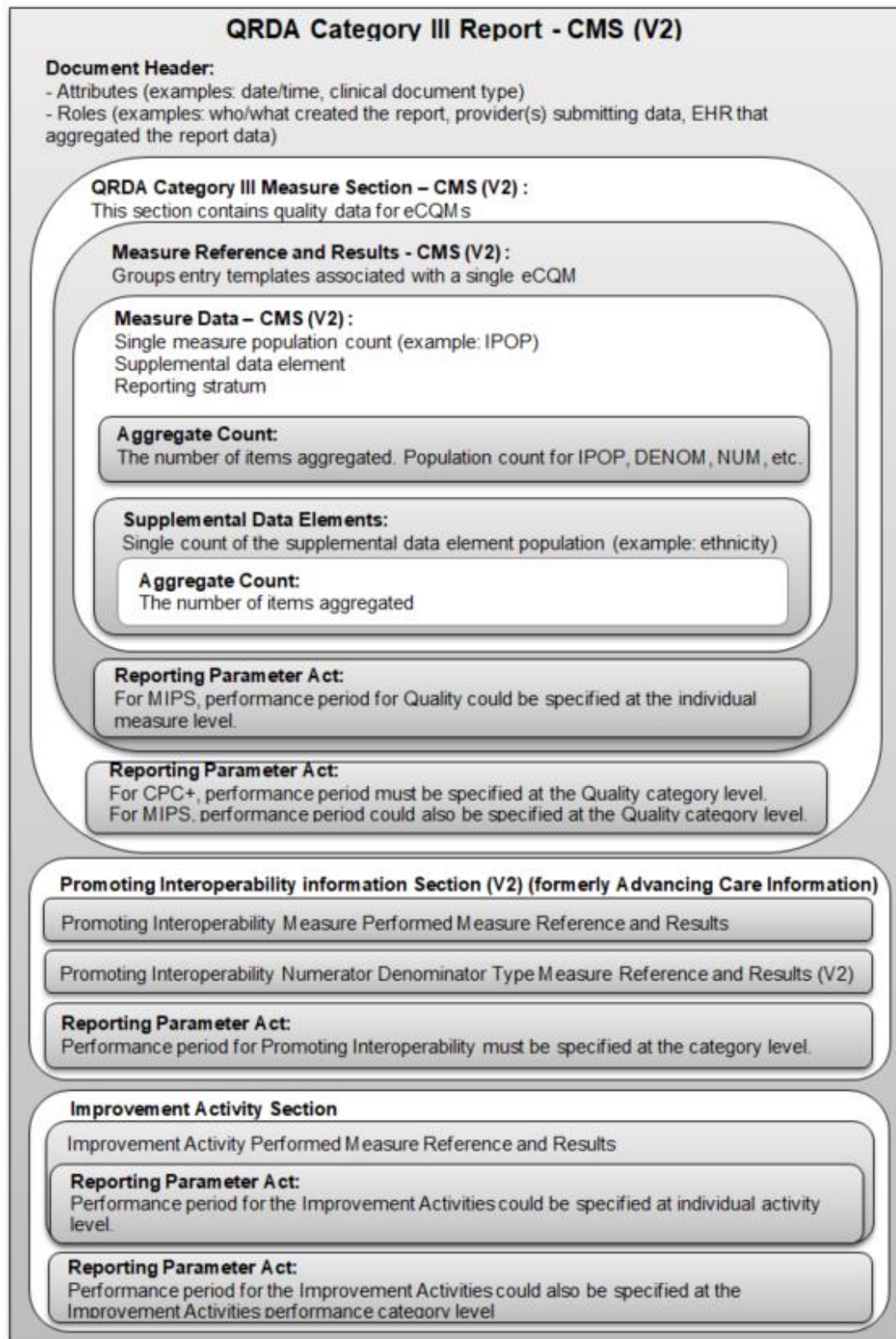
3.1 Background

This guide is a CMS Quality Reporting Document Architecture Category III (QRDA-III) implementation guide to the HL7 QRDA-III STU R2.1. Templates defined in this implementation guide are conformant with the HL7 QRDA-III STU R2.1. CMS Eligible Clinicians and Eligible Professionals Programs QRDA-III templates address aggregate reporting requirements for:

- Comprehensive Primary Care Plus (CPC+)
- Merit-Based Incentive Payment System (MIPS)

A QRDA-III report is an aggregate quality report. Each QRDA-III report contains calculated summary data for one or more measures for a specified population of patients within a particular health system over a specific period of time. Summary data in the QRDA-III report are defined based on the specified measures in HL7 Health Quality Measures Format (HQMF), which standardizes the representation of a health quality measure as an electronic document. Other summary data provided in the QRDA-III report include Promoting Interoperability measures and improvement activities. The structure of a QRDA-III report is depicted in Figure 4.

Figure 4: QRDA-III Report Structure Example



3.2 How to Read This QRDA-III Guide

This guide includes the formal template definitions and submission criteria for submitting QRDA-III documents to CPC+ program and the MIPS for Eligible Clinicians and Eligible Professionals. Some of the conformance statements in the HL7 QRDA-III STU R2.1 have been further constrained to meet the specific requirements from these CMS Eligible Clinicians and Eligible Professionals programs. This guide shows all parent template definitions from the base HL7 QRDA-III STU R2.1 together with the CMS specific constraints.

4 QRDA Category III Submission Rules

CMS will process eCQM QRDA-III documents originating from CEHRT EHR systems. Submitted QRDA-III documents must meet the conformance statements specified in the [QRDA Category III Validation](#) section of this implementation guide.

4.1 Comprehensive Primary Care Plus (CPC+) Submissions

For program year 2018, CPC+ practice sites need to adopt health IT (HIT) meeting the 2015 Edition certification criteria found at 45 CFR 170.315(c)(1) - (3) or 2014 Edition certification criteria found at 45 CFR 170.314(c)(1)-(3) using the [2018 Performance Period eCQM Specifications for Eligible Professionals and Eligible Clinicians](#), for all of the electronic clinical quality measures in the CPC+ measure set.

CPC+ Quality measure data must be submitted at the CPC+ practice site level, which can include multiple TINs. Promoting Interoperability/Improvement Activity must be submitted at an individual TIN level. Therefore, any Promoting Interoperability/Improvement Activity MIPS performance category data submitted in a CPC+ practice file will not be processed for calculation of a MIPS score and ignored. Promoting Interoperability/Improvement Activity performance category data must be submitted through a separate file or appropriate application independent of a CPC+ quality measure QRDA III submission.

CPC+ practice site level reporting includes all patients (including beneficiaries for all payers and those that are uninsured) who were seen at least once at the practice site location during the Performance Period (i.e., calendar year) by CPC+ clinicians (TIN/NPI) and who met the inclusion criteria for the Initial Population/Denominator. Each CPC+ practice site submitting QRDA-III files for the 2018 Performance Period must provide at least the minimum number² of measures required by the CPC+ program.

If the CPC+ practice site includes multiple clinicians (CPC+ and non-CPC+), the eCQM population includes all patients who had at least one visit at the CPC+ practice site location and were seen by a CPC+ clinician(s) (TIN/NPIs) during the Performance Period who meet the initial population criteria of the eCQM.

QRDA-III submissions for CPC+ will use the [2018 Performance Period eCQM Specifications for Eligible Professionals and Eligible Clinicians](#) provided in the [eCQI Resource Center](#).

The Performance Period for the CPC+ program begins on January 1, 2018 and ends on December 31, 2018.

4.2 Merit-Based Incentive Payment System (MIPS) QRDA III Submissions

MIPS QRDA-III submissions must contain data for at least one of the following three MIPS performance categories: Quality, Promoting Interoperability, or Improvement Activities. The QRDA-III XML format can be used for submission type made via log in and upload or direct via the Submissions API. Please refer to the Quality Payment Program [website](#) for Quality, Promoting Interoperability and Improvement Activity scoring rules.

² Additional information regarding CPC+ eCQM quality reporting requirements and CPC+ measure set may be found at the following location: <https://innovation.cms.gov/initiatives/comprehensive-primary-care-plus>.

Under MIPS, a group is defined as a single Taxpayer Identification Number (TIN) with 2 or more clinicians (including at least one MIPS eligible clinician), as identified by their National Provider Identifiers (NPI), who have reassigned their Medicare billing rights to the TIN. If a MIPS eligible clinician bills Medicare Part B under multiple TINs, it is possible that the same clinician may be required to submit data multiple times, under each TIN, if they exceed the low-volume threshold.

Under MIPS, a virtual group is defined as a combination of two or more TINs assigned to one or more solo practitioners or to one or more groups consisting of 10 or fewer clinicians (including at least one MIPS eligible clinician), or both, that elect to form a virtual group for a performance period for a year.

For 2018, MIPS eligible clinicians and groups are required to submit a full year of data for the Quality performance category, 90-days of data for the improvement activities – unless otherwise specified within the activity, and 90-days of data for the Promoting Interoperability performance categories. . For the MIPS eligible clinician participating as an individual, your eQCM populations include all patients (all-payer data) seen by the MIPS eligible clinician during the performance period. For group participation, eQCM populations include all patients (all-payer data). Data submission for both individual MIPS eligible clinicians and groups will occur prior to January 2, 2019, if technically feasible, through March 31, 2019.

4.3 Identifiers

For all CMS eligible clinicians and eligible professionals program reporting, certain identifiers are **mandatory**, meaning that they must be present in the QRDA-III report and no nulls are allowed. Exceptions and considerations are noted where applicable. Mandatory identifiers for CMS eligible clinicians and eligible professionals program reporting include:

- Alternative Payment Model (APM) Entity Identifier
 - For CPC+, this is the CPCPLUS APM Entity Identifier.
Note: Additional guidance regarding the CPCPLUS APM Entity Identifier assigned by the CPC+ program to the CPC+ practice site will be provided at a later time.
- National Provider Identifier (NPI)
 - Required for MIPS individual reporting
 - Not allowed for MIPS group reporting and MIPS virtual group reporting
 - Required for CPC+ reporting
- Tax Identification Number (TIN)
 - Required for MIPS group reporting and MIPS individual reporting
 - Required for CPC+ reporting
- Virtual Group Identifier
 - Required for MIPS virtual group reporting

4.4 Succession Management

This section describes the management of successive replacement documents for QRDA-III reports. For example, a submitter notices an error in an earlier submission and wants to replace it with a corrected version. For the MIPS program, managing replacement documents is sometimes referred to as Final Action Processing (FAP). For MIPS QRDA-III reporting, replacement documents will be handled at the category level for final processing.

4.4.1 Final Action Processing used in Succession Management

The MIPS receiving system at CMS uses Final Action Processing to reliably determine the current version per category of a QRDA-III document. There are different sets of Final Action Processing rules that apply to the MIPS program and the CPC+ program respectively.

Please note that the CMS receiving system will not be able to analyze specific elements outside of any given category within the file of earlier QRDA-III submissions. Therefore submitters should ensure all QRDA-III reports are complete data re-submissions per category being resubmitted.

4.4.2 Final Action Processing Rules for MIPS

For group reporting (except for the CPC+ program), the Final Action Processing rules include the combination of the CMS program name, the TIN, and the submission timestamp. For individual reporting, the Final Action Processing rules include the combination of the CMS program name, the TIN, the NPI number, and the submission timestamp.

When submitting a replacement QRDA-III report for the MIPS program use the same TIN or the same TIN/NPI. For example, if a QRDA-III report containing Quality data for eCQMs 1, 2, and 3 was submitted on Monday and a replacement QRDA-III report for the same TIN/NPI was resubmitted the next day for eCQMs 1, 2, and 4. Only eCQMs 1, 2, and 4 contained in the latest submission will be used for final processing. Data submitted for eCQM 3 on Monday would not be marked for final processing and not be used for MIPS analysis.

At the category level, if a QRDA-III report containing data for Quality, Promoting Interoperability, and Improvement activities was submitted on Monday and a replacement QRDA-III report for the same TIN was resubmitted the next day with data for Promoting Interoperability, only the Quality and Improvement Activities data from the first submission and then Promoting Interoperability from the subsequent submission would be marked for final processing for MIPS analysis.

4.4.3 Final Action Processing Rules for CPC+

The last file successfully submitted for a CPC+ practice site is used to determine if that CPC+ practice site satisfactorily met reporting requirements for the program year.

For QRDA-III files that are submitted to the CPC+ program, the Final Action Processing rules include the combination of the CMS program name, the CPCPLUS APM Entity Identifier (aka CPC+ Practice Site Identifier), and the submission timestamp.

4.4.4 Program Identifiers Used in Succession Management

The CMS program name requirement for QRDA-III submission is specified in [5.1.4 informationRecipient](#). Each QRDA-III report **must** contain only one CMS program name, which shall be selected from the [QRDA-III CMS Program Name value set \(2.16.840.1.113883.3.249.14.101\)](#). The CMS program name specified in a QRDA-III report ensures the report is routed to the correct CMS program once it is received by the CMS QRDA-III receiving system. Therefore, when submitting a QRDA-III report to CMS, it is critical to specify the correct CMS program. The CMS program name is also used for managing successive replacement QRDA-III documents. When submitting a replacement QRDA-III report, the replacement QRDA-III report **must** contain the same CMS program name as specified in the report that it is intended to replace. The timestamp of the latest file submitted will be used to determine which file is to be analyzed for the specified CMS program, therefore an error in the CMS program name will produce the wrong analysis. For example, if you are submitting a file

initially for CPC+, find an error and resubmit the file with another CMS program name (such as MIPS_GROUP), the file will only be analyzed for MIPS.

4.5 Time Zone

Time comparisons or elapsed time calculations are frequently involved as part of determining measure population outcomes.

Table 1: Time Zone Validation Rule

CONF.#	Rules
CMS_0122	A Coordinated Universal Time (UTC time) offset should not be used anywhere in a QRDA Category III file or, if a UTC time offset is needed anywhere, then it *must* be specified *everywhere* a time field is provided.

This time zone validation rule is performed on the following elements:

- effectiveTime/@value
- effectiveTime/low/@value
- effectiveTime/high/@value
- time/@value
- time/low/@value
- time/high/@value

There is one exception to this validation rule. The `effectiveTime` element of the `Reporting Parameters Act` template (CONF: 23-3274 and CONF: 23-3275) will not be validated using this time zone validation rule:

- act[@templateId="2.16.840.1.113883.10.20.17.3.8"]/effectiveTime/low
- act[@templateId="2.16.840.1.113883.10.20.17.3.8"]/effectiveTime/high

4.6 Performance Period and Performance Rate

The performance period for the CPC+ program begins on January 1, 2018 and ends on December 31, 2018. If the CMS program name code is "CPCPLUS", the `Reporting Parameters Act` `effectiveTime/low` and `effectiveTime/high` value must be set as the following:

- act[@templateId="2.16.840.1.113883.10.20.17.3.8"]/effectiveTime/low/@value="20180101"
- act[@templateId="2.16.840.1.113883.10.20.17.3.8"]/effectiveTime/high/@value="20181231"

For the MIPS performance period requirement, please see [4.2 Merit-Based Incentive Payment Systems \(MIPS\) QRDA III Submissions](#).

For the CPC+ program, performance rate(s) must be reported for eQMs that are proportion measure. This is specified in this conformance statement:

If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="CPCPLUS", then Performance Rate for Proportion Measure – CMS (V2) **SHALL** be present (CONF:2233-711342).

For MIPS reporting (CMS program name code is either "MIPS_INDIV", "MIPS_GROUP", or "MIPS_VIRTUALGROUP"), performance rates for eQMs and Promoting Interoperability

measures are not required for submissions. If performance rates are provided, they will be ignored by the receiving system.

4.7 Templates Versioning and Validations

Both the base HL7 QRDA-III STU R2.1 and the CMS QRDA-III Implementation Guide have versioned the templates if changes were made to the previous version of the template. Details about CDA templates versioning in general are described in 1.8.2 Template Versioning of the HL7 QRDA-III STU R2.1. For example, in the HL7 QRDA-III STU R2.1, the previous `Measure Reference and Results` template is now `Measure Reference and Results (V3)`, its template identifier is "2.16.840.1.113883.10.20.27.3.1:2016-09-01". Both the `@root` and `@extension` are required as specified in the IG.

- SHALL** contain exactly one [1..1] `templateId` (CONF:2226-17908) such that it
- SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.27.3.1"` (CONF:2226-17909).
 - SHALL** contain exactly one [1..1] `@extension="2016-09-01"` (CONF:2226-21170).

Correct template versions that are specified by both the base HL7 QRDA-III STU R2.1 and the 2018 CMS IG must be used for 2018 CMS QRDA-III submissions.

5 QRDA Category III Validation

5.1 Document-Level Template: QRDA Category III Report - CMS (V2)

```
[ClinicalDocument: identifier
urn:hl7ii:2.16.840.1.113883.10.20.27.1.2:2017-07-01 (open)]
```

Table 2: QRDA Category III Report - CMS (V2) Contexts

Contained By	Contains
N/A	Advancing care information Section (V2) Improvement activity Section (V2) QRDA Category III Measure Section - CMS (V2)

This template describes constraints that apply to the QRDA Document Category III Report for CMS Eligible Clinicians and Eligible Professionals Programs including the CPC+ program and MIPS.

Document-level templates describe the rules for constructing a conforming CDA document. They include constraints on the CDA header and identify contained section-level templates. The document-level template contains the following information:

- Description and explanatory narrative
 - Template metadata (e.g., templateId, etc.)
 - Header constraints
 - Required section-level templates
1. **Conforms to QRDA Category III Report (V4) template** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.1.1:2017-06-01).
 2. **SHALL** contain exactly one [1..1] **realmCode** (CONF:2233-17226).
 - a. This realmCode **SHALL** contain exactly one [1..1] **@code="US"** (CONF:2233-17227).
 2. **SHALL** contain exactly one [1..1] **typeId** (CONF:2233-18186).
 - a. This typeId **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.1.3"** (CONF:2233-18187).
 - b. This typeId **SHALL** contain exactly one [1..1] **@extension="POCD_HD000040"** (CONF:2233-18188).
 3. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-17208) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.27.1.1"** (CONF:2233-17209).
Note: QRDA Category III Report
 - b. **SHALL** contain exactly one [1..1] **@extension="2017-06-01"** (CONF:2226-21168).
 4. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-711280) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.27.1.2"** (CONF:2233-711281).
 - b. **SHALL** contain exactly one [1..1] **@extension="2017-07-01"** (CONF:2233-711305).
 5. **SHALL** contain exactly one [1..1] **id** (CONF:2233-17236).

- a. This id **SHALL** be a globally unique identifier for the document (CONF:2233-17242).
- 6. **SHALL** contain exactly one [1..1] **code** (CONF:2233-17210).
 - a. This code **SHALL** contain exactly one [1..1] **@code="55184-6"** Quality Reporting Document Architecture Calculated Summary Report (CONF:2233-19549).
 - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.1"** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:2233-21166).
- 7. **SHALL** contain exactly one [1..1] **title** (CONF:2233-17211).
- 8. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:2233-17237).
 - a. The content **SHALL** be a conformant US Realm Date and Time (DTM.US.FIELDDED) (2.16.840.1.113883.10.20.22.5.4) (CONF:2233-18189).
- 9. **SHALL** contain exactly one [1..1] **confidentialityCode** (CONF:2233-711174).
 - a. This confidentialityCode **SHALL** contain exactly one [1..1] **@code="N"** Normal (CodeSystem: ConfidentialityCode urn:oid:2.16.840.1.113883.5.25 STATIC) (CONF:2233-711246).
- 10. **SHALL** contain exactly one [1..1] **languageCode** (CONF:2233-711173).
 - a. This languageCode **SHALL** contain exactly one [1..1] **@code="en"** English (CodeSystem: Language urn:oid:2.16.840.1.113883.6.121) (CONF:2233-711247).

5.1.1 recordTarget

QRDA-III is an aggregate summary report. Therefore CDA's required `recordTarget/id` is nulled. The `recordTarget` element is designed for single patient data and is required in all CDA documents. In this case, the document does not contain results for a single patient, but rather for groups of patients, and thus the `recordTarget` ID in QRDA Category III documents contains a `nullFlavor` attribute (is nulled).

- 11. **SHALL** contain exactly one [1..1] **recordTarget** (CONF:2233-17212).
 - a. This recordTarget **SHALL** contain exactly one [1..1] **patientRole** (CONF:2233-17232) such that it
 - i. **SHALL** contain exactly one [1..1] **id** (CONF:2233-17233).
 - 1. This id **SHALL** contain exactly one [1..1] **@nullFlavor="NA"** (CONF:2233-17234).

Figure 5: recordTarget Example, QRDA Category III Report – CMS (V2)

```
<recordTarget>
  <patientRole>
    <id nullFlavor="NA"/>
  </patientRole>
</recordTarget>
```

5.1.2 author

The CDA standard requires an author with an identifier to represent a person or device that have created document content. For a given document, there may be multiple authoring individuals and/or devices. Authors may also be described in other header elements, depending on roles. The `author/time` value represents the time when the document was last edited. When there are multiple authors, the first author time usually correlates with the `effectiveTime` of the document, which is when the document was generated.

12. **SHALL** contain at least one [1..*] **author** (CONF:2233-18156) such that it
- a. **SHALL** contain exactly one [1..1] **time** (CONF:2233-18158).
 - b. **SHALL** contain exactly one [1..1] **assignedAuthor** (CONF:2233-18157).
 - i. This assignedAuthor **SHALL** contain exactly one [1..1] **id** (CONF:2233-711240).
 - ii. This assignedAuthor **MAY** contain zero or one [0..1] **assignedPerson** (CONF:2233-18368).
 - iii. This assignedAuthor **MAY** contain zero or one [0..1] **assignedAuthoringDevice** (CONF:2233-18162).
 1. The assignedAuthoringDevice, if present, **SHALL** contain exactly one [1..1] **softwareName** (CONF:2233-18262).
 - iv. This assignedAuthor **SHALL** contain exactly one [1..1] **representedOrganization** (CONF:2233-18163).
 1. This representedOrganization **SHALL** contain at least one [1..*] **name** (CONF:2233-18265).
 - c. There **SHALL** be exactly one assignedAuthor/assignedPerson or exactly one assignedAuthor/assignedAuthoringDevice (CONF:2233-19667).

Figure 6: Device Author Example

```
<author>
  <time value="20170311061231-0500"/>
  <assignedAuthor>
    <id root="3d0a32f3-5164-4a6f-8922-de3badf83ddd"/>
    <assignedAuthoringDevice>
      <softwareName>SOME Data Aggregator Transform Tool
      AS00016dev</softwareName>
    </assignedAuthoringDevice>
    <representedOrganization>
      <id root="2.16.840.1.113883.19.5" extension="223344"/>
      <name>Good Health Clinic</name>
    </representedOrganization>
  </assignedAuthor>
</author>
```

Figure 7: Person Author Example

```

<author>
  <time value="20170312114411-0500"/>
  <assignedAuthor>
    <id root="2.16.840.1.113883.4.6" extension="2589654740"
      assigningAuthorityName="NPI"/>
    <assignedPerson>
      <name>
        <given>Trevor</given>
        <family>Philips</family>
      </name>
    </assignedPerson>
    <representedOrganization>
      <id root="2.16.840.1.113883.19.5" extension="223344"/>
      <name>Good Health Clinic</name>
    </representedOrganization>
  </assignedAuthor>
</author>

```

5.1.3 custodian

The `custodian` element represents the organization that is in charge of maintaining and is entrusted with the care of the document.

13. **SHALL** contain exactly one [1..1] **custodian** (CONF:2233-17213).

- a. This custodian **SHALL** contain exactly one [1..1] **assignedCustodian** (CONF:2233-17214).
 - i. This assignedCustodian **SHALL** contain exactly one [1..1] **representedCustodianOrganization** (CONF:2233-17215).
 1. This representedCustodianOrganization **SHALL** contain at least one [1..*] **id** (CONF:2233-18165).
 2. This representedCustodianOrganization **SHOULD** contain zero or one [0..1] **name** (CONF:2233-18166).
- b. This assignedCustodian **SHALL** represent the organization that owns and reports the data (CONF:2233-18246).

Figure 8: Custodian Example

```

<custodian>
  <assignedCustodian>
    <representedCustodianOrganization>
      <id root="2.16.840.1.113883.19.5" extension="223344"/>
      <name>Good Health Clinic</name>
    </representedCustodianOrganization>
  </assignedCustodian>
</custodian>

```

5.1.4 informationRecipient

The `informationRecipient` represents the CMS eligible clinicians and eligible professionals program the report is being submitted to.

14. **SHALL** contain exactly one [1..1] **informationRecipient** (CONF:2233-711158).

- a. This informationRecipient **SHALL** contain exactly one [1..1] **intendedRecipient** (CONF:2233-711159).

- i. This intendedRecipient **SHALL** contain exactly one [1..1] **id** (CONF:2233-711160).

The id/@root specifies that this identifier represents a CMS Program.

1. This id **SHALL** contain exactly one [1..1]
@root="2.16.840.1.113883.3.249.7" CMS Program
(CONF:2233-711161).

The id/@extension contains the CMS Program the report is being submitted to.

2. This id **SHALL** contain exactly one [1..1] @extension, which **SHALL** be selected from ValueSet [QRDA-III CMS Program Name](#)
urn:oid:2.16.840.1.113883.3.249.14.101 **STATIC**
(CONF:2233-711162).
 - a. If
ClinicalDocument/informationRecipient/intendedRecipient/id/@
extension="CPCPLUS", then
ClinicalDocument/participant/@typeCode="LOC" **SHALL** be
present (CONF:2233-711248).
 - b. If
ClinicalDocument/informationRecipient/intendedRecipient/id/@
extension="CPCPLUS", then QRDA Category III Measure
Section – CMS (V2) **SHALL** be present (CONF:2233-711340).
 - c. If
ClinicalDocument/informationRecipient/intendedRecipient/id/@
extension="CPCPLUS", then Performance Rate for Proportion
Measure – CMS (V2) **SHALL** be present (CONF:2233-
711342).

Table 3: QRDA-III CMS Program Name

Value Set: QRDA-III CMS Program Name 2.16.840.1.113883.3.249.14.101 Specifies the CMS Program for QRDA-III report submissions.			
Code	Code System	Code System OID	Print Name
CPCPLUS	CMS Program	2.16.840.1.113883.3.249.7	CPC+
MIPS_INDIV	CMS Program	2.16.840.1.113883.3.249.7	MIPS Individual
MIPS_GROUP	CMS Program	2.16.840.1.113883.3.249.7	MIPS Group
MIPS_VIRTUALGROUP	CMS Program	2.16.840.1.113883.3.249.7	MIPS Virtual Group

Figure 9: informationRecipient Example, QRDA Category III Report - CMS (V2)

```
<informationRecipient>
  <intendedRecipient>
    <id root="2.16.840.1.113883.3.249.7" extension="CPCPLUS"/>
  </intendedRecipient>
</informationRecipient>
```

5.1.5 legalAuthenticator

The `legalAuthenticator` element represents the individual legally responsible for ensuring the data they have aggregated in the report was aggregated correctly.

15. **SHALL** contain exactly one [1..1] **legalAuthenticator** (CONF:2233-17225).

Note: If a vendor is used, the vendor is the `legalAuthenticator`.

- a. This `legalAuthenticator` **SHALL** contain exactly one [1..1] **time** (CONF:2233-18167).
Note: This value is when the document was signed.
- b. This `legalAuthenticator` **SHALL** contain exactly one [1..1] **signatureCode** (CONF:2233-18168).
 - i. This `signatureCode` **SHALL** contain exactly one [1..1] **@code="S"** (CONF:2233-18169).
- c. This `legalAuthenticator` **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:2233-19670).
 - i. This `assignedEntity` **MAY** contain zero or one [0..1] **representedOrganization** (CONF:2233-19671).

When the `legalAuthenticator` is a vendor, the `representedOrganization/id` is the vendor TIN.

1. The `representedOrganization`, if present, **SHALL** contain at least one [1..*] **id** (CONF:2233-19672).
2. The `representedOrganization`, if present, **SHOULD** contain zero or one [0..1] **name** (CONF:2233-19673).

Figure 10: legalAuthenticator Example

```
<legalAuthenticator>
  <time value="20150312153222-0500"/>
  <signatureCode code="S"/>
  <assignedEntity>
    <id root="bc01a5d1-3a34-4286-82cc-43eb04c972a7"/>
    <representedOrganization>
      <id root="2.16.840.1.113883.19.5" extension="223344"/>
      <name>Good Health Clinic</name>
    </representedOrganization>
  </assignedEntity>
</legalAuthenticator>
```

5.1.6 participant is Device

The generic participant with a `participationType` of 'DEV' (device) and an `associatedEntity classCode` of 'RGPR' (regulated product) is used to represent the CMS EHR Certification Identification Number.

16. **MAY** contain zero or more [0..*] **participant** (CONF:2233-18300) such that it

- a. **SHALL** contain exactly one [1..1] **@typeCode="DEV"** device (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:2233-18301).
- b. **SHALL** contain exactly one [1..1] **associatedEntity** (CONF:2233-18302).
 - i. This associatedEntity **SHALL** contain exactly one [1..1] **@classCode="RGPR"** regulated product (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:2233-18303).
 - ii. This associatedEntity **MAY** contain zero or one [0..1] **id** (CONF:2233-18304) such that it

The CMS EHR Certification Identification Number was formerly known as the ONC Certification Number.

- 1. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.3.2074.1"** CMS EHR Certification Identification Number (CONF:2233-18305).
Note: This value specifies that the id is the CMS EHR Certification Identification Number.
- iii. This associatedEntity **SHALL** contain at least one [1..*] **id** (CONF:2233-20954).
- iv. This associatedEntity **SHALL** contain exactly one [1..1] **code** (CONF:2233-18308).
 - 1. This code **SHALL** contain exactly one [1..1] **@code="129465004"** medical record, device (CONF:2233-18309).
 - 2. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.96"** (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:2233-21167).

Figure 11: Device Participant Example

```
<participant typeCode="DEV">
  <associatedEntity classCode="RGPR">
    <id root="2.16.840.1.113883.3.2074.1" extension="1a2b3c"/>
    <code code="129465004" displayName="medical record, device"
      codeSystem="2.16.840.1.113883.6.96"
      codeSystemName="SNOMED-CT"/>
  </associatedEntity>
</participant>
```

5.1.7 participant is Location

For CPC+ reporting, the generic participant with a participationType of 'LOC' (location) and an associatedEntity classCode of 'SDLOC' (service delivery location) representing the CPC+ Practice Site is required.

If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="CPCPLUS", then this location participant must be present.

- 17. **MAY** contain zero or one [0..1] **participant** (CONF:2233-711150) such that it
 - a. **SHALL** contain exactly one [1..1] **@typeCode="LOC"** Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:2233-711151).
 - b. **SHALL** contain exactly one [1..1] **associatedEntity** (CONF:2233-711152).
 - i. This associatedEntity **SHALL** contain exactly one [1..1] **@classCode="SDLOC"** Service Delivery Location (CodeSystem:

- RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:2233-711153).
- ii. This associatedEntity **SHALL** contain exactly one [1..1] **id** (CONF:2233-711154).
 1. This id **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.3.249.5.1" CPC Practice Site (CONF:2233-711155).
Note: This OID contained in the @root (2.16.840.1.113883.3.249.5.1) designates that the @extension must hold a CPCPLUS APM Entity Identifier.
 2. This id **SHALL** contain exactly one [1..1] **@extension** (CONF:2233-711156).
Note: This is the CPCPLUS APM Entity Identifier assigned to the CPC+ practice site.
 - iii. This associatedEntity **SHALL** contain exactly one [1..1] **code** (CONF:2233-711218).
 1. This code **SHALL** contain exactly one [1..1] **@code**="394730007" Healthcare Related Organization (CONF:2233-711219).
 2. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:2233-711324).
 - iv. This associatedEntity **SHALL** contain exactly one [1..1] **addr** (CONF:2233-711157).

Figure 12: Location Participant Example

```
<participant typeCode="LOC">
  <associatedEntity classCode="SDLOC">
    <id root="2.16.840.1.113883.3.249.5.1" extension="T2OR1234"
      assigningAuthorityName="CMS-CMMI"/>
    <code code="394730007"
      displayName="healthcare related organization"
      codeSystem="2.16.840.1.113883.6.96"
      codeSystemName="SNOMED-CT"/>
    <addr>
      <streetAddressLine>123 Healthcare St</streetAddressLine>
      <city>Norman</city>
      <state>OK</state>
      <postalCode>73019</postalCode>
    </addr>
  </associatedEntity>
</participant>
```

5.1.8 documentationOf

The aggregated data contained in a QRDA Category III report was provided by one or more providers. The `documentationOf` service event can contain identifiers for all of the (one or more) providers involved, using the `serviceEvent/performer` elements.

18. **SHALL** contain exactly one [1..1] **documentationOf** (CONF: 2233-711214).
 - a. This documentationOf **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:2233-18171).

- i. This serviceEvent **SHALL** contain exactly one [1..1] @**classCode**="PCPR" Care Provision (CodeSystem: HL7ActClass 2.16.840.1.113883.5.6 **STATIC**) (CONF:2233-18172).

For MIPS group reporting, must contain exactly one performer, which contains one TIN. No NPI is allowed.

For MIPS virtual group reporting, must contain exactly one performer, which contains one Virtual Group Identifier. No NPI is allowed.

For MIPS individual reporting, must contain exactly one performer, which contains one TIN and one NPI.

For CPCPLUS, must contain at least one performer, each performer contains one TIN and one NPI. Only CPC+ Practice Site providers are listed as performers.

- ii. This serviceEvent **SHALL** contain at least one [1..*] **performer** (CONF:2233-18173).
 - 1. Such performers **SHALL** contain exactly one [1..1] @**typeCode**="PRF" Performer (CodeSystem: HL7ParticipationType 2.16.840.1.113883.5.90 **STATIC**) (CONF: 2233-18174).
 - 2. Such performers **MAY** contain zero or one [0..1] **time** (CONF:2233-18175).
 - 3. Such performers **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:2233-18176).

The assignedEntity id/@root =' 2.16.840.1.113883.4.6' coupled with the id/@extension represents the individual provider's National Provider Identification number (NPI).

NPI is required except for group reporting and virtual group reporting. For group and virtual group reporting, id/@root=' 2.16.840.1.113883.4.6' is coupled with @nullFlavor="NA", and @extension shall be omitted.

- a. This assignedEntity **SHALL** contain exactly one [1..1] **id** (CONF:711167) such that it
 - i. **MAY** contain zero or one [0..1] @**nullFlavor**="NA" (CONF:2233-711249).
Note: @nullFlavor is only present for MIPS group reporting or MIPS virtual group reporting.
 - ii. **SHALL** contain exactly one [1..1] @**root**="2.16.840.1.113883.4.6" National Provider ID (CONF:2233-711169).
Note: This value specifies that the id is the provider's National Provider Identifier (NPI).
 - iii. **MAY** contain zero or one [0..1] @**extension** (CONF:2233-711170).
Note: This is the provider's NPI. It is only present when this is not MIPS group reporting or MIPS virtual group reporting. For CPC+, only those NPIs that are participating in the CPC+ program should be provided.
- b. This assignedEntity **MAY** contain zero or more [0..*] **telecom** (CONF:2233-18310).
- c. This assignedEntity **SHALL** contain exactly one [1..1] **representedOrganization** (CONF:2233-18180).
 - i. This representedOrganization **SHALL** contain exactly one [1..1] **id** (CONF:2233-711168) such that it

1. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.4.2"` Tax ID Number (CONF:2233-711171).
Note: This value specifies that this id is the organization's Tax Identification Number (TIN).
 2. **SHALL** contain exactly one [1..1] `@extension` (CONF:2233-711172).
Note: This is the organization's TIN.
- This representedOrganization **SHOULD** contain zero or more [0..*] `name` (CONF:2233-19659).

Figure 13: documentationOf Example

```
<documentationOf>
  <serviceEvent classCode="PCPR">
    <!-- Care provision -->
    <effectiveTime>
      <low value="20170101"/>
      <high value="20171231"/>
    </effectiveTime>
    <!-- Multiple performers can be included for CPC+ only,
      each with an NPI and TIN -->
    <performer typeCode="PRF">
      <time>
        <low value="20170101"/>
        <high value="20171231"/>
      </time>
      <assignedEntity>
        <!-- Provider NPI -->
        <id root="2.16.840.1.113883.4.6" extension="2589654740"/>
        <representedOrganization>
          <!-- Organization TIN -->
          <id root="2.16.840.1.113883.4.2" extension="990000999"/>
          <name>Good Health Clinic</name>
        </representedOrganization>
        </assignedEntity>
      </performer>
    </serviceEvent>
  </documentationOf>
```

5.1.9 authorization

If the data is submitted through an intermediary such as a vendor, this `authorization` represents that the eligible clinicians and eligible professionals have given permission to release the report.

MIPS and CPC+ all allow aggregation and submission by a vendor. If a vendor is used, then information about the vendor (e.g., TIN) is captured as the Legal Authenticator.

19. **MAY** contain zero or one [0..1] `authorization` (CONF:2233-18344).
 - a. The authorization, if present, **SHALL** contain exactly one [1..1] `consent` (CONF:2233-18360).
 - i. This consent **SHALL** contain exactly one [1..1] `id` (CONF:2233-18361).
Note: This is the identifier of the consent given by the eligible clinicians and eligible professionals.
 - ii. This consent **SHALL** contain exactly one [1..1] `code` (CONF:2233-18363).
 1. This code **SHALL** contain exactly one [1..1] `@code="425691002"`
Consent given for electronic record sharing (CONF:2233-19550).

2. This code **SHALL** contain exactly one [1..1]
@codeSystem="2.16.840.1.113883.6.96" (CodeSystem:
SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:2233-
21172).
- iii. This consent **SHALL** contain exactly one [1..1] **statusCode** (CONF:2233-
18364).
 1. This statusCode **SHALL** contain exactly one [1..1]
@code="completed" Completed (CodeSystem: ActStatus
urn:oid:2.16.840.1.113883.5.14) (CONF:2233-19551).

Figure 14: Authorization Example

```
<authorization>
  <consent>
    <id root="84613250-e75e-11e1-aff1-0800200c9a66"/>
    <code code="425691002"
      displayName="consent given for electronic record sharing"
      codeSystem="2.16.840.1.113883.6.96"
      codeSystemName="SNOMED-CT"/>
    <statusCode code="completed"/>
  </consent>
</authorization>
```

5.1.10 component

A CMS QRDA Category III document for the 2018 performance period must contain at least a QRDA Category III Measure Section, an Improvement Activity Section, or a Promoting Interoperability Section. The performance period for Improvement Activity, Promoting Interoperability, and Quality (eCQMs) is specified using the Reporting Parameters Act template within each section respectively. The QRDA Category III Reporting Parameters Section shall not be used for specifying performance period.

20. **SHALL** contain exactly one [1..1] **component** (CONF:2233-17217).
 - a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:2233-17235).
 - i. This structuredBody **SHALL NOT** contain [0..0] **component** (CONF:2233-711341) such that it
 1. **SHALL** contain exactly one [1..1] **QRDA Category III Reporting Parameters Section** (identifier:
urn:oid:2.16.840.1.113883.10.20.27.2.2) (CONF:2233-17282).
 - ii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:2233-17283) such that it
 1. **SHALL** contain exactly one [1..1] [QRDA Category III Measure Section - CMS \(V2\)](#) (identifier:
urn:hl7ii:2.16.840.1.113883.10.20.27.2.3:2017-07-01) (CONF:2233-711142).
 - iii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:2233-21173) such that it
 1. **SHALL** contain exactly one [1..1] [Improvement Activity Section \(V2\)](#) (identifier:
urn:hl7ii:2.16.840.1.113883.10.20.27.2.4:2017-06-01) (CONF:2233-21174).

- iv. This **structuredBody** **MAY** contain zero or one [0..1] **component** (CONF:2233-21317) such that it
 - 1. **SHALL** contain exactly one [1..1] [Advancing Care Information Section \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.5:2017-06-01) (CONF:2233-21318).
- v. This **structuredBody** **SHALL** contain at least a QRDA Category III Measure Section - CMS (V2), or an Improvement Activity Section (V2), or a Promoting Interoperability Section (V2) (CONF:2233-711311).

Note: Promoting Interoperability Section (V2) is formerly Advancing Care Information (V2)

Figure 15: structuredBody Example

```
<component>
  <structuredBody>
    <component>
      <!-- QRDA Category III Measure Section - CMS (V2) -->
      <section>
        ...
        <title>Measure Section</title>
        ...
      </section>
    </component>
    <component>
      <!-- Improvement Activity Section - CMS -->
      <section>
        ...
        <title>Measure Section</title>
        ...
      </section>
    </component>
    <component>
      <!--Promoting Interoperability Section (V2) -->
      <section>
        ...
        <title>Measure Section</title>
        ...
      </section>
    </component>
  </structuredBody>
</component>
```

5.2 Section-Level Templates

5.2.1 Measure Section

```
[section: identifier urn:oid:2.16.840.1.113883.10.20.24.2.2
(open)]
```

Table 4: Measure Section Contexts

Contained By	Contains
N/A	Measure Reference

This section contains information about the measure or measures being reported. This section references the measure through reference to an externalDocument. The externalDocument/ids and version numbers are used to reference the measure. The measure section must contain a reference to at least one externalDocument id of all the measures being reported in the QRDA instance.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:67-12801) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.2.2" (CONF:67-12802).
2. **SHALL** contain exactly one [1..1] **code** (CONF:67-12798).
 - a. This code **SHALL** contain exactly one [1..1] **@code**="55186-1" Measure Section (CONF:67-19230).
 - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:67-27012).
3. **SHALL** contain exactly one [1..1] **title**="Measure Section" (CONF:67-12799).
4. **SHALL** contain exactly one [1..1] **text** (CONF:67-12800).
5. **SHALL** contain at least one [1..*] **entry** (CONF:67-13003).
 - a. Such entries **SHALL** contain exactly one [1..1] **Measure Reference** (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.98) (CONF:67-16677).

5.2.1.1 Promoting Interoperability Section (V2)

[section: identifier
urn:hl7ii:2.16.840.1.113883.10.20.27.2.5:2017-06-01 (open)]

Table 5: Promoting Interoperability Section Contexts

Contained By	Contains
QRDA Category III Report - CMS (V2) (optional)	Promoting Interoperability Measure Performed Measure Reference and Results Promoting Interoperability Numerator Denominator Type Measure Reference and Results (V2) Reporting Parameters Act

This section references the Promoting Interoperability measures being reported.

1. Conforms to [Measure Section](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.24.2.2).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:3259-21231) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.27.2.5" (CONF:3259-21233).
 - b. **SHALL** contain exactly one [1..1] **@extension**="2017-06-01" (CONF:3338-21395).
3. **MAY** contain zero or more [0..*] **entry** (CONF:3259-21380) such that it
 - a. **SHALL** contain exactly one [1..1] [Promoting Interoperability Numerator Denominator Type Measure Reference and Results \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.28:2017-06-01) (CONF:3338-21381).
4. **MAY** contain zero or more [0..*] **entry** (CONF:3259-21315) such that it

- a. **SHALL** contain exactly one [1..1] [Promoting Interoperability Measure Performed Measure Reference and Results](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.29:2016-09-01) (CONF:3259-21437).
5. **SHALL** contain exactly one [1..1] **entry** (CONF:3338-21440) such that it
 - a. **SHALL** contain exactly one [1..1] [Reporting Parameters Act](#) (identifier: urn:oid:2.16.840.1.113883.10.20.17.3.8) (CONF:3338-21441).
6. **SHALL** contain at least one [1..*] **entry** (CONF:3259-21438).
 - a. This Promoting Interoperability Section **SHALL** contain at least a Promoting Interoperability Numerator Denominator Type Measure Reference and Results or a Promoting Interoperability Measure Performed Reference and Results (CONF:3259-21439).

Figure 16: Promoting Interoperability Section (V2) Example

```

<component>
  <!-- Measure Section -->
  <templateId root="2.16.840.1.113883.10.20.24.2.2"/>
  <!-- Promoting Interoperability Section templateId -->
  <templateId root="2.16.840.1.113883.10.20.27.2.5"
extension="2017-06-01"/>
  <code code="55186-1" codeSystem="2.16.840.1.113883.6.1"
displayName="Measure Section"/>
  <title>Measure Section</title>
  <text>
    ...
  </text>
  <entry>
    <organizer>
      <!-- Promoting Interoperability Numerator Denominator Type
Measure Reference and Results -->
      ...
    </organizer>
  </entry>
  <entry>
    <organizer>
      <!-- Promoting Interoperability Measure Performed Measure
Reference and Result -->
      ...
    </organizer>
  </entry>
  <entry>
    <!-- Reporting Parameters Act -->
    <act>
      </act>
  </entry>
</component>

```

5.2.1.2 Improvement Activity Section (V2)

[section: identifier

urn:hl7ii:2.16.840.1.113883.10.20.27.2.4:2017-06-01 (open)]

Table 6: Improvement Activity Section Contexts

Contained By	Contains
QRDA Category III Report - CMS (V2) (optional)	Improvement Activity Performed Measure Reference and Results Reporting Parameters Act

This section references the improvement activities being reported. Examples of activities may include care coordination, shared decision-making, safety checklists, and expanded practice access. This section includes entries for reporting activities that are met (with yes answer).

When submitting Improvement Activities to CMS for the MIPS programs, the performance period could be specified either at the individual improvement activity level, using a Reporting Parameter Act template within the Improvement Activity Performed Measure Reference and Results – CMS template, or at the Improvement Activity performance category level (Improvement Activity Section). However, specifying performance period at both the individual improvement activity level and the Improvement Activity performance category level is not permitted.

1. Conforms to [Measure Section](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.24.2.2).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:3259-21175) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.27.2.4" (CONF:3259-21177).
 - b. **SHALL** contain exactly one [1..1] **@extension**="2017-06-01" (CONF:3338-21398).
3. **SHALL** contain at least one [1..*] **entry** (CONF:3259-21181) such that it
 - a. **SHALL** contain exactly one [1..1] [Improvement Activity Performed Measure Reference and Results](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.33:2016-09-01) (CONF:3259-21436).
4. **SHALL** contain exactly one [1..1] **entry** (CONF:3338-21447) such that it
 - a. **SHALL** contain exactly one [1..1] [Reporting Parameters Act](#) (identifier: urn:oid:2.16.840.1.113883.10.20.17.3.8) (CONF:3338-21448).

Figure 17: Improvement Activity Section (V2) Example

```

<component>
  <section>
    <!-- Measure Section -->
    <templateId root="2.16.840.1.113883.10.20.24.2.2"/>
    <!-- Improvement Activity Section templateId -->
    <templateId root="2.16.840.1.113883.10.20.27.2.4"
extension="2017-06-01"/>
    <code code="55186-1" codeSystem="2.16.840.1.113883.6.1"
displayName="Measure Section"/>
    <title>Measure Section</title>
    <text>
      ...
    </text>
    <entry>
      <!-- Improvement Activity Performed Reference and Results -->
      <organizer classCode="CLUSTER" moodCode="EVN">
        ...
      </organizer>
    </entry>
    <entry>
      <!-- Reporting Parameters Act -->
      <act>
        ...
      </act>
    </entry>
  </section>
</component>

```

5.2.1.3 QRDA Category III Measure Section - CMS (V2)

```

[section: identifier
urn:hl7ii:2.16.840.1.113883.10.20.27.2.3:2017-07-01 (open)]

```

Table 7: QRDA Category III Measure Section - CMS (V2) Contexts

Contained By	Contains
QRDA Category III Report - CMS (V2) (optional)	Measure Reference and Results - CMS (V2) Reporting Parameters Act

This section references the eCQM(s) being reported. For each reported eCQM, this section includes entries for reporting various aggregate counts (e.g. number of patients in the measure's denominator). For continuous variable measures, this section includes entries for reporting the continuous variables. This section can also include entries not only for aggregate counts, but stratified aggregate counts (e.g. not just total number of patients in the denominator, but also the number of males in the denominator). Note that the QRDA-III standard allows for more than one measure within this section, but does not allow multiple occurrences of the same measure in a single QRDA-III instance.

For CPC+ reporting, this section must contain a Measure Reference and Results template for each measure that is being reported on by the CPC+ practice site.

When submitting eCQMs to CMS for the MIPS Quality category, the performance period could be specified either at the individual measure level, using a Reporting Parameter Act template within the Measures Reference and Results – CMS (V2) template, or at the Quality performance category level (QRDA Category III Measure Section). However, specifying performance period at both the individual measure level and the Quality performance category level is not permitted.

1. **Conforms to QRDA Category III Measure Section (V4) template** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.1:2017-06-01).

2. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-711276) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.27.2.3" (CONF:2233-711277).
 - b. **SHALL** contain exactly one [1..1] **@extension**="2017-07-01" (CONF:2233-711286).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-12801) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.2.2" (CONF:2233-12802).
Note: Measure Section templateId
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-17284) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.27.2.1" (CONF:2233-17285).
Note: QRDA Category III Measure Section (V4) templateId
 - b. **SHALL** contain exactly one [1..1] **@extension**="2017-06-01" (CONF:2233-711285).
5. **SHALL** contain exactly one [1..1] **code** (CONF:2233-12798).
 - a. This code **SHALL** contain exactly one [1..1] **@code**="55186-1" Measure Section (CONF:2233-19230).
 - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:2233-27012).
6. **SHALL** contain exactly one [1..1] **title**="Measure Section" (CONF:2233-12799).
7. **SHALL** contain exactly one [1..1] **text** (CONF:2233-12800).
8. **SHALL** contain at least one [1..*] **entry** (CONF:2233-711283) such that it
 - a. **SHALL** contain exactly one [1..1] [Measure Reference and Results - CMS \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.17:2016-11-01) (CONF:2233-711284).
9. **SHALL** contain exactly one [1..1] **entry** (CONF:2233-21445) such that it
 - a. **SHALL** contain exactly one [1..1] [Reporting Parameters Act](#) (identifier: urn:oid:2.16.840.1.113883.10.20.17.3.8) (CONF:2233-21446).

Figure 18: QRDA-III Measure Section – CMS (V2) Example

```

<section>
  <!-- Measure Section template ID -->
  <templateId root="2.16.840.1.113883.10.20.24.2.2" />
  <!-- QRDA Category III Measure Section (V4) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.2.1"
extension="2017-06-01"/>
  <!-- QRDA Category III Measure Section - CMS (V2) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.2.3"
extension="2017-07-01"/>
  <code code="55186-1" codeSystem="2.16.840.1.113883.6.1"/>
  <title>Measure Section</title>
  <text>
    <table border="1" width="100%">
      <thead>
        <tr>
          <th>eCQM Title</th>
          <th>Version specific identifier</th>
        </tr>
      </thead>
      <tbody>
        <tr>
          <td>Controlling High Blood Pressure</td>
          <td>40280381-3d61-56a7-013e-66bc02da4dee</td>
        </tr>
      </tbody>
      <list>
        ...
      </list>
    </table>
  </text>
  <entry>
    <!-- Measure Reference and Results - CMS (V2) -->
    <organizer classCode="CLUSTER" moodCode="EVN">
      ...
    </organizer>
  </entry>
</section>

```

5.3 Entry-Level Templates

5.3.1 Promoting Interoperability Measure Performed Measure Reference and Results

```

[organizer: identifier
urn:hl7ii:2.16.840.1.113883.10.20.27.3.29:2016-09-01 (open)]

```

Table 8: Promoting Interoperability Measure Performed Measure Reference and Results Contexts

Contained By	Contains
Promoting Interoperability Section (optional)	Measure Performed

This template defines the way a Promoting Interoperability measure should be referenced, and the way a measure performed type of Promoting Interoperability measure should be reported. Measures are referenced through `externalAct` reference to an `externalDocument`. The `externalDocument/id` is used to reference the measure.

Table 9: Promoting Interoperability Measure Performed Measure Reference and Results Constraints Overview

observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.29']
[templateId/@extension="2016-09-01"]

XPath	Card.	Verb	Data Type	CONF#	Value
@classCode	1..1	SHALL		3259-21419	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		3259-21420	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		3259-21408	
@root	1..1	SHALL		3259-21417	2.16.840.1.113883.10.20.27.3.29
@extension	1..1	SHALL		3259-21418	2016-09-01
reference	1..1	SHALL		3259-21405	
@typeCode	1..1	SHALL		3259-21416	REFR
externalDocument	1..1	SHALL		3259-21406	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass)
@classCode	1..1	SHALL		3259-21415	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = DOC
id	1..1	SHALL		3259-21407	
@root	1..1	SHALL		3259-21412	2.16.840.1.113883.3.7031
@extension	1..1	SHALL		3259-21413	
text	0..1	SHOULD		3259-21414	
component	1..1	SHALL		3259-21404	
observation	1..1	SHALL		3259-21411	Measure Performed (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.27:2016-09-01)

1. Conforms to Measure Reference template (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.98).
2. **SHALL** contain exactly one [1..1] @classCode="CLUSTER" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:3259-21419).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:3259-21420).
4. **SHALL** contain exactly one [1..1] templateId (CONF:3259-21408) such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.29" (CONF:3259-21417).

- b. **SHALL** contain exactly one [1..1] **@extension**="2016-09-01" (CONF:3259-21418).
- 5. **SHALL** contain exactly one [1..1] **reference** (CONF:3259-21405) such that it
 - a. **SHALL** contain exactly one [1..1] **@typeCode**="REFR" (CONF:3259-21416).
 - b. **SHALL** contain exactly one [1..1] **externalDocument** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:3259-21406).
 - i. This externalDocument **SHALL** contain exactly one [1..1] **@classCode**="DOC" Document (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3259-21415).
 - ii. This externalDocument **SHALL** contain exactly one [1..1] **id** (CONF:3259-21407) such that it
 - 1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.3.7031" (CONF:3259-21412).
Note: This OID indicates that the @extension contains Promoting Interoperability identifier
 - 2. **SHALL** contain exactly one [1..1] **@extension** (CONF:3259-21413).
Note: This @extension is the value of Promoting Interoperability identifier

This text is the title and optionally a brief description of the measure.

- iii. This externalDocument **SHOULD** contain zero or one [0..1] **text** (CONF:3259-21414).
- 6. **SHALL** contain exactly one [1..1] **component** (CONF:3259-21404) such that it
 - a. **SHALL** contain exactly one [1..1] Measure Performed (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.27:2016-09-01) (CONF:3259-21411).

Figure 19: Promoting Interoperability Measure Performed Measure Reference and Results Example

```

<organizer classCode="CLUSTER" moodCode="EVN">
  <!-- Measure Reference template -->
  <templateId root="2.16.840.1.113883.10.20.24.3.98"/>
  <!--Promoting Interoperability Measure Performed Measure
Reference and Results -->
  <templateId root="2.16.840.1.113883.10.20.27.3.29"
extension="2016-09-01"/>
  <id root="ac575aef-7062-4ea2-b723-df517cfa470a"/>
  <statusCode code="completed"/>
  <reference typeCode="REFR">
    <!-- Reference to a particular Promoting Interoperability measure
unique identifier. -->
    <externalDocument classCode="DOC" moodCode="EVN">
      <!-- extension is the unique identifier for a Promoting
Interoperability measure. -->
      <id root="2.16.840.1.113883.3.7031"
extension="PI_PPHI_1"/>
      <!-- Promoting Interoperability measure title -->
      <text>Security Risk Analysis</text>
    </externalDocument>
  </reference>
  <component>
    <!-- Measure Performed -->
    ...
  </component>
  <component>
    ...
  </component>
</organizer>

```

5.3.2 Promoting Interoperability Numerator Denominator Type Measure Reference and Results (V2)

```

[organizer: identifier
urn:hl7ii:2.16.840.1.113883.10.20.27.3.28:2017-06-01 (open)]

```

Table 10: Promoting Interoperability Numerator Denominator Type Measure Reference and Results (V2) Contexts

Contained By	Contains
Promoting Interoperability Section (V2) (optional)	Promoting Interoperability Numerator Denominator Type Measure Denominator Data Promoting Interoperability Numerator Denominator Type Measure Numerator Data Performance Rate

This template defines the way that a Promoting Interoperability measure should be referenced. Measures are referenced through externalAct reference to an externalDocument. The externalDocument/id is used to reference the measure.

Table 11: Promoting Interoperability Numerator Denominator Type Measure Reference and Results (V2) Constraints Overview

observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.28']
[templateId/@extension="2017-06-01"]

XPath	Card.	Verb	Data Type	CONF#	Value
@classCode	1..1	SHALL		3338-21273	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		3338-21274	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		3338-21248	
@root	1..1	SHALL		3338-21266	2.16.840.1.113883.10.20.27.3.28
@extension	1..1	SHALL		3338-21396	2017-06-01
reference	1..1	SHALL		3338-21242	
@typeCode	1..1	SHALL		3338-21265	REFR
externalDocument	1..1	SHALL		3338-21243	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass)
@classCode	1..1	SHALL		3338-21264	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = DOC
id	1..1	SHALL		3338-21247	
@root	1..1	SHALL		3338-21402	2.16.840.1.113883.3.7031
@extension	1..1	SHALL		3338-21403	
text	0..1	SHOULD		3338-21263	
component	0..1	MAY		3338-21240	
observation	1..1	SHALL		3338-21311	Performance Rate (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.30:2016-09-01)
component	1..1	SHALL		3338-21312	
observation	1..1	SHALL		3338-21313	Promoting Interoperability Numerator Denominator Type Measure Numerator Data (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.31:2016-09-01)
component	1..1	SHALL		3338-21320	
observation	1..1	SHALL		3338-21321	Promoting Interoperability Numerator Denominator Type Measure Denominator Data (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.32:2016-09-01)

1. Conforms to Measure Reference template (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.98).
2. **SHALL** contain exactly one [1..1] **@classCode="CLUSTER"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:3338-21273).
3. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:3338-21274).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:3338-21248) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.27.3.28"** (CONF:3338-21266).
 - b. **SHALL** contain exactly one [1..1] **@extension="2017-06-01"** (CONF:3338-21396).
5. **SHALL** contain exactly one [1..1] **reference** (CONF:3338-21242) such that it
 - a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** (CONF:3338-21265).
 - b. **SHALL** contain exactly one [1..1] **externalDocument** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:3338-21243).
 - i. This externalDocument **SHALL** contain exactly one [1..1] **@classCode="DOC"** Document (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3338-21264).
 - ii. This externalDocument **SHALL** contain exactly one [1..1] **id** (CONF:3338-21247) such that it
 1. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.3.7031"** (CONF:3338-21402).
Note: This OID indicates that the @extension contains Promoting Interoperability measure identifier
 2. **SHALL** contain exactly one [1..1] **@extension** (CONF:3338-21403).
Note: This @extension is the value of Promoting Interoperability identifier

This text is the title and optionally a brief description of the measure.

- iii. This externalDocument **SHOULD** contain zero or one [0..1] **text** (CONF:3338-21263).
6. **MAY** contain zero or one [0..1] **component** (CONF:3338-21240) such that it
 - a. **SHALL** contain exactly one [1..1] Performance Rate (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.30:2016-09-01) (CONF:3338-21311).
7. **SHALL** contain exactly one [1..1] **component** (CONF:3338-21312) such that it
 - a. **SHALL** contain exactly one [1..1] Promoting Interoperability Numerator Denominator Type Measure Numerator Data (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.31:2016-09-01) (CONF:3338-21313).
8. **SHALL** contain exactly one [1..1] **component** (CONF:3338-21320) such that it
 - a. **SHALL** contain exactly one [1..1] Promoting Interoperability Numerator Denominator Type Measure Denominator Data (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.32:2016-09-01) (CONF:3338-21321).

Figure 20: Promoting Interoperability Numerator Denominator Type Measure Reference and Results (V2) Example

```

<organizer classCode="CLUSTER" moodCode="EVN">
  <!-- Measure Reference template -->
  <templateId root="2.16.840.1.113883.10.20.24.3.98"/>
  <!--Promoting Interoperability Numerator Denominator Type Measure
Reference and Results -->
  <templateId root="2.16.840.1.113883.10.20.27.3.28"
extension="2017-06-01"/>
  <id root="ac575aef-7062-4ea2-b723-df517cfa470a"/>
  <statusCode code="completed"/>
  <reference typeCode="REFR">
    <!-- Reference to a particular Promoting Interoperability
measure unique identifier. -->
    <externalDocument classCode="DOC" moodCode="EVN">
      <!-- extension is the unique identifier for a Promoting
InteroperabilityPromoting Interoperability measure.-->
      <id root="2.16.840.1.113883.3.7031" extension="PI_
PEA_1"/>
      <!-- Promoting Interoperability measure title -->
      <text>Patient Access</text>
    </externalDocument>
  </reference>
  <component>
    <!-- Promoting Interoperability Numerator Denominator Type
Measure Denominator Data -->
    ...
  </component>
  <component>
    <!-- Promoting Interoperability Numerator Denominator Type
Measure Numerator Data -->
    ...
  </component>
</organizer>

```

5.3.3 Promoting Interoperability Numerator Denominator Type Measure Denominator Data

[observation: identifier
urn:hl7ii:2.16.840.1.113883.10.20.27.3.32:2016-09-01 (open)]

Table 12: Promoting Interoperability Numerator Denominator Type Measure Denominator Data Contexts

Contained By	Contains
Promoting Interoperability Numerator Denominator Type Measure Reference and Results (required)	Aggregate Count

This template is used for reporting aggregated denominator count for Promoting Interoperability Numerator Denominator type of measure.

Table 13: Promoting Interoperability Numerator Denominator Type Measure Denominator Data Constraints Overview

observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.32']
[templateId/@extension="2016-09-01"]

XPath	Card.	Verb	Data Type	CONF#	Value
@classCode	1..1	SHALL		3259-21378	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		3259-21379	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		3259-21366	
@root	1..1	SHALL		3259-21374	2.16.840.1.113883.10.20.27.3.32
@extension	1..1	SHALL		3259-21400	2016-09-01
code	1..1	SHALL		3259-21365	
@code	1..1	SHALL		3259-21372	ASSERTION
@codeSystem	1..1	SHALL		3259-21373	urn:oid:2.16.840.1.113883.5.4 (ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		3259-21367	
@code	1..1	SHALL		3259-21375	urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	CD	3259-21368	
@code	1..1	SHALL		3259-21376	DENOM
@codeSystem	1..1	SHALL		3259-21377	urn:oid:2.16.840.1.113883.5.4 (ActCode) = 2.16.840.1.113883.5.4
entryRelationship	1..1	SHALL		3259-21364	
@typeCode	1..1	SHALL		3259-21370	SUBJ
@inversionInd	1..1	SHALL		3259-21371	true
observation	1..1	SHALL		3259-21369	Aggregate Count (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3)

1. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:3259-21378).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:3259-21379).
3. **SHALL** contain exactly one [1..1] templateId (CONF:3259-21366) such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.32" (CONF:3259-21374).

- b. **SHALL** contain exactly one [1..1] **@extension="2016-09-01"** (CONF:3259-21400).
- 4. **SHALL** contain exactly one [1..1] **code** (CONF:3259-21365).
 - a. This code **SHALL** contain exactly one [1..1] **@code="ASSERTION"** Assertion (CONF:3259-21372).
 - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.4"** (CodeSystem: ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3259-21373).
- 5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:3259-21367).
 - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3259-21375).
- 6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"** (CONF:3259-21368).
 - a. This value **SHALL** contain exactly one [1..1] **@code="DENOM"** Denominator (CONF:3259-21376).
 - b. This value **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.4"** (CodeSystem: ActCode urn:oid:2.16.840.1.113883.5.4 **STATIC**) (CONF:3259-21377).
- 7. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:3259-21364) such that it
 - a. **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** (CONF:3259-21370).
 - b. **SHALL** contain exactly one [1..1] **@inversionInd="true"** (CONF:3259-21371).
 - c. **SHALL** contain exactly one [1..1] Aggregate Count (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3) (CONF:3259-21369).

Figure 21: Promoting Interoperability Numerator Denominator Type Measure Denominator Data Example

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.27.3.32"
  extension="2016-09-01"/>
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
  codeSystemName="ActCode" displayName="Assertion"/>
  <statusCode code="completed"/>
  <value xsi:type="CD" code="DENOM"
  codeSystem="2.16.840.1.113883.5.4"
  codeSystemName="ActCode"/>
  <!-- Denominator Count-->
  <entryRelationship typeCode="SUBJ" inversionInd="true">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.27.3.3"/>
      <code code="MSRAGG"
      codeSystem="2.16.840.1.113883.5.4" codeSystemName="ActCode"
      displayName="rate aggregation"/>
      <statusCode code="completed"/>
      <value xsi:type="INT" value="800"/>
      <methodCode code="COUNT"
      codeSystem="2.16.840.1.113883.5.84"
      codeSystemName="ObservationMethod" displayName="Count"/>
    </observation>
  </entryRelationship>
</observation>
```

5.3.4 Promoting Interoperability Numerator Denominator Type Measure Numerator Data

```
[observation: identifier
urn:hl7ii:2.16.840.1.113883.10.20.27.3.31:2016-09-01 (open)]
```

Table 14: Promoting Interoperability Numerator Denominator Type Measure Numerator Data Contexts

Contained By	Contains
Promoting Interoperability Numerator Denominator Type Measure Reference and Results (required)	Aggregate Count

This template is used for reporting aggregated numerator count for Promoting Interoperability Numerator Denominator type of measure.

Table 15: Promoting Interoperability Numerator Denominator Type Measure Numerator Data Constraints Overview

observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.32:2016-09-01']

XPath	Card.	Verb	Data Type	CONF#	Value
@classCode	1..1	SHALL		3259-21360	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		3259-21361	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN

XPath	Card.	Verb	Data Type	CONF#	Value
templateId	1..1	SHALL		3259-21324	
@root	1..1	SHALL		3259-21342	2.16.840.1.113883.10.20.27.3.31
@extension	1..1	SHALL		3259-21401	2016-09-01
code	1..1	SHALL		3259-21323	
@code	1..1	SHALL		3259-21340	ASSERTION
@codeSystem	1..1	SHALL		3259-21341	urn:oid:2.16.840.1.113883.5.4 (ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		3259-21332	
@code	1..1	SHALL		3259-21358	urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	CD	3259-21336	
@code	1..1	SHALL		3259-21362	NUMER
@codeSystem	1..1	SHALL		3259-21363	urn:oid:2.16.840.1.113883.5.4 (ActCode) = 2.16.840.1.113883.5.4
entryRelationship	1..1	SHALL		3259-21322	
@typeCode	1..1	SHALL		3259-21338	SUBJ
@inversionInd	1..1	SHALL		3259-21339	true
observation	1..1	SHALL		3259-21337	Aggregate Count (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3)

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:3259-21360).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:3259-21361).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:3259-21324) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.27.3.31"** (CONF:3259-21342).
 - b. **SHALL** contain exactly one [1..1] **@extension="2016-09-01"** (CONF:3259-21401).
4. **SHALL** contain exactly one [1..1] **code** (CONF:3259-21323).
 - a. This code **SHALL** contain exactly one [1..1] **@code="ASSERTION"** Assertion (CONF:3259-21340).
 - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.4"** (CodeSystem: ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3259-21341).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:3259-21332).

- a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3259-21358).
6. **SHALL** contain exactly one [1..1] value with @xsi:type="CD" (CONF:3259-21336).
 - a. This value **SHALL** contain exactly one [1..1] @code="NUMER" Numerator (CONF:3259-21362).
 - b. This value **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: ActCode urn:oid:2.16.840.1.113883.5.4 **STATIC**) (CONF:3259-21363).
7. **SHALL** contain exactly one [1..1] entryRelationship (CONF:3259-21322) such that it
 - a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" (CONF:3259-21338).
 - b. **SHALL** contain exactly one [1..1] @inversionInd="true" (CONF:3259-21339).
 - c. **SHALL** contain exactly one [1..1] [Aggregate Count](#) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3) (CONF:3259-21337).

Figure 22: Promoting Interoperability Numerator Denominator Type Measure Numerator Data Example

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.27.3.31"
extension="2016-09-01"/>
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="ActCode" displayName="Assertion"/>
  <statusCode code="completed"/>
  <value xsi:type="CD" code="NUM"
codeSystem="2.16.840.1.113883.5.4"
codeSystemName="ActCode"/>
  <!-- Numerator Count-->
  <entryRelationship typeCode="SUBJ" inversionInd="true">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.27.3.3"/>
      <code code="MSRAGG" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="ActCode" displayName="rate aggregation"/>
      <statusCode code="completed"/>
      <value xsi:type="INT" value="600"/>
      <methodCode code="COUNT"
codeSystem="2.16.840.1.113883.5.84"
codeSystemName="ObservationMethod" displayName="Count"/>
    </observation>
  </entryRelationship>
</observation>
```

5.3.5 Aggregate Count

[observation: identifier urn:oid:2.16.840.1.113883.10.20.27.3.3
(open)]

Table 16: Aggregate Count Contexts

Contained By	Contains
Advancing Care Information Numerator Denominator Type Measure Numerator Data (required)	
Advancing Care Information Numerator Denominator Type Measure Denominator Data (required)	

Table 17: Aggregate Count Constraints Overview

observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.3']

XPath	Card.	Verb	Data Type	CONF#	Value
@classCode	1..1	SHALL		77-17563	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		77-17564	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		77-17565	
@root	1..1	SHALL		77-18095	2.16.840.1.113883.10.20.27.3.3
code	1..1	SHALL		77-17566	
@code	1..1	SHALL		77-19508	MSRAGG
@codeSystem	1..1	SHALL		77-21160	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
value	1..1	SHALL	INT	77-17567	
@value	1..1	SHALL		77-17568	
methodCode	1..1	SHALL		77-19509	
@code	1..1	SHALL		77-19510	COUNT
@codeSystem	1..1	SHALL		77-21161	urn:oid:2.16.840.1.113883.5.84 (HL7ObservationMethod) = 2.16.840.1.113883.5.84
referenceRange	0..1	MAY		77-18392	
observationRange	1..1	SHALL		77-18393	
value	1..1	SHALL	INT	77-18394	

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:77-17563).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:77-17564).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:77-17565) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.27.3.3"** (CONF:77-18095).
4. **SHALL** contain exactly one [1..1] **code** (CONF:77-17566).
 - a. This code **SHALL** contain exactly one [1..1] **@code="MSRAGG"** rate aggregation (CONF:77-19508).
 - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.4"** (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:77-21160).

5. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="INT"** (CONF:77-17567).
 - a. This value **SHALL** contain exactly one [1..1] **@value** (CONF:77-17568).
6. **SHALL** contain exactly one [1..1] **methodCode** (CONF:77-19509).
 - a. This methodCode **SHALL** contain exactly one [1..1] **@code="COUNT"** Count (CONF:77-19510).
 - b. This methodCode **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.84"** (CodeSystem: HL7ObservationMethod urn:oid:2.16.840.1.113883.5.84) (CONF:77-21161).

The reference range is optionally used to represent the predicted count based on the measure's risk-adjustment model.

7. **MAY** contain zero or one [0..1] **referenceRange** (CONF:77-18392).
 - a. The referenceRange, if present, **SHALL** contain exactly one [1..1] **observationRange** (CONF:77-18393).
 - i. This observationRange **SHALL** contain exactly one [1..1] **value** with **@xsi:type="INT"** (CONF:77-18394).

Figure 23: Aggregate Count Example

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.27.3.3"/>
  <code code="MSRAGG" displayName="rate aggregation"
    codeSystem="2.16.840.1.113883.5.4" codeSystemName="ActCode"/>
  <value xsi:type="INT" value="650"/>
  <methodCode code="COUNT" displayName="Count"
    codeSystem="2.16.840.1.113883.5.84"
    codeSystemName="ObservationMethod"/>
</observation>
```

5.3.5.1 Aggregate Count - CMS

[observation: templateId 2.16.840.1.113883.10.20.27.3.24 (open)]

Table 18: Aggregate Count - CMS Contexts

Contained By	Contains
Reporting Stratum - CMS (required) Measure Data - CMS (V2) (required) Payer Supplemental Data Element - CMS (V2) (required) Sex Supplemental Data Element - CMS (V2) (required) Ethnicity Supplemental Data Element - CMS (V2) (required) Race Supplemental Data Element - CMS (V2) (required)	

The Aggregate Count captures the number of items aggregated. This template is contained in a parent template that describes the item. For CMS eligible clinicians and eligible professionals program reporting, the count must be sent even if the number is zero.

Table 19: Aggregate Count - CMS Constraints Overview

observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.24']

XPath	Card.	Verb	Data Type	CONF#	Value
@classCode	1..1	SHALL		1109-17563	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		1109-17564	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		1109-711262	
@root	1..1	SHALL		1109-711263	2.16.840.1.113883.10.20.27.3.24
templateId	1..1	SHALL		1109-17565	
@root	1..1	SHALL		1109-18095	2.16.840.1.113883.10.20.27.3.3
code	1..1	SHALL		1109-17566	
@code	1..1	SHALL		1109-19508	MSRAGG
@codeSystem	1..1	SHALL		1109-21160	urn:oid:2.16.840.1.113883.5.4 (ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		1109-711244	
@code	1..1	SHALL		1109-711245	urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	INT	1109-17567	
@value	1..1	SHALL		1109-17568	
methodCode	1..1	SHALL		1109-19509	
@code	1..1	SHALL		1109-19510	COUNT
@codeSystem	1..1	SHALL		1109-21161	urn:oid:2.16.840.1.113883.5.84 (ObservationMethod) = 2.16.840.1.113883.5.84

1. Conforms to Aggregate Count template (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1109-17563).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1109-17564).
4. **SHALL** contain exactly one [1..1] templateId (CONF:1109-711262) such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.24" (CONF:1109-711263).
5. **SHALL** contain exactly one [1..1] templateId (CONF:1109-17565) such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.3" (CONF:77-18095).

Note: Aggregate Count templateId (QRDA III)

6. **SHALL** contain exactly one [1..1] **code** (CONF:1109-17566).
 - a. This code **SHALL** contain exactly one [1..1] **@code="MSRAGG"** rate aggregation (CONF:1109-19508).
 - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.4"** (CodeSystem: ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1109-21160).
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1109-711244).
 - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1109-711245).
8. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="INT"** (CONF:1109-17567).
 - a. This value **SHALL** contain exactly one [1..1] **@value** (CONF:1109-17568).
9. **SHALL** contain exactly one [1..1] **methodCode** (CONF:1109-19509).
 - a. This methodCode **SHALL** contain exactly one [1..1] **@code="COUNT"** Count (CONF:1109-19510).
 - b. This methodCode **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.84"** (CodeSystem: ObservationMethod urn:oid:2.16.840.1.113883.5.84) (CONF:1109-21161).

Figure 24: Aggregate Count - CMS Example

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Aggregate Count template ID (QRDA-III) -->
  <templateId root="2.16.840.1.113883.10.20.27.3.3"/>
  <!-- Aggregate Count - CMS template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.24"/>
  <code code="MSRAGG" displayName="rate aggregation"
    codeSystem="2.16.840.1.113883.5.4" codeSystemName="ActCode"/>
  <statusCode code="completed"/>
  <value xsi:type="INT" value="1000"/>
  <methodCode code="COUNT" displayName="Count"
    codeSystem="2.16.840.1.113883.5.84"
    codeSystemName="ObservationMethod"/>
</observation>
```

5.3.6 Continuous Variable Measure Value - CMS

[observation: templateId 2.16.840.1.113883.10.20.27.3.26 (open)]

Table 20: Continuous Variable Measure Value - CMS Contexts

Contained By	Contains
Reporting Stratum - CMS (optional) Measure Data - CMS (V2) (optional)	

This observation represents the continuous variables found in quality measures that measure performance criteria by time spans, magnitude changes, etc. A continuous variable for a given patient might be the time spent waiting for a procedure. A continuous variable for a population might be the mean wait time. The type of aggregation (e.g. mean, median) is represented in the observation/methodCode.

Table 21: Continuous Variable Measure Value - CMS Constraints Overview

observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.26']

XPath	Card.	Verb	Data Type	CONF#	Value
@classCode	1..1	SHALL		1109-17569	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		1109-17570	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		1109-711264	
@root	1..1	SHALL		1109-711265	2.16.840.1.113883.10.20.27.3.26
templateId	1..1	SHALL		1109-18096	
@root	1..1	SHALL		1109-18097	2.16.840.1.113883.10.20.27.3.2
code	1..1	SHALL		1109-17571	
statusCode	1..1	SHALL		1109-711241	
@code	1..1	SHALL		1109-711242	urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL		1109-17572	
methodCode	1..1	SHALL		1109-18242	urn:oid:2.16.840.1.113883.1.11.20450 (ObservationMethodAggregate)
reference	1..1	SHALL		1109-18243	
externalObservation	1..1	SHALL		1109-18244	
id	1..1	SHALL		1109-711205	

1. Conforms to Continuous Variable Measure Value **template** (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.2).
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1109-17569).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1109-17570).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1109-711264) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.27.3.26" (CONF:1109-711265).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:1109-18096) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.27.3.2" (CONF:1109-18097).

Note: Continuous Variable Measure Value templateId (QRDA III)
6. **SHALL** contain exactly one [1..1] **code** (CONF:1109-17571).

- a. This code element **SHALL** equal the code element in that eMeasure's measure observation definition (CONF:1109-711243).
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1109-711241).
 - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1109-711242).
8. **SHALL** contain exactly one [1..1] **value** (CONF:1109-17572).
9. **SHALL** contain exactly one [1..1] **methodCode**, which **SHALL** be selected from ValueSet **ObservationMethodAggregate** urn:oid:2.16.840.1.113883.1.11.20450 **STATIC** (CONF:1109-18242).
10. **SHALL** contain exactly one [1..1] **reference** (CONF:1109-18243).
 - a. This reference **SHALL** contain exactly one [1..1] **externalObservation** (CONF:1109-18244).
 - i. This externalObservation **SHALL** contain exactly one [1..1] **id** (CONF:1109-711205).
Note: This is the id in the eMeasure's measure observation definition.

Figure 25: Continuous Variable Measure Value - CMS Example

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Continuous Variable Measure Value template ID (QRDA-III) -->
  <templateId root="2.16.840.1.113883.10.20.27.3.2"/>
  <!-- Continuous Variable Measure Value - CMS template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.26"/>
  <code nullFlavor="OTH">
    <originalText>Time Difference</originalText>
  </code>
  <statusCode code="completed"/>
  <value xsi:type="PQ" value="55" unit="min"/>
  <methodCode code="MEDIAN" displayName="Median"
    codeSystem="2.16.840.1.113883.5.84"
    codeSystemName="ObservationMethod"/>
  <!-- reference to the relevant measure observation in the eCQM -->
  <reference typeCode="REFR">
    <externalObservation classCode="OBS" moodCode="EVN">
      <id root="bcefe756-fb9f-4e46-aadc-d19de340b6b5"/>
    </externalObservation>
  </reference>
</observation>
```

5.3.7 Ethnicity Supplemental Data Element - CMS (V2)

[observation: identifier
urn:hl7ii:2.16.840.1.113883.10.20.27.3.22:2016-11-01 (open)]

Table 22: Ethnicity Supplemental Data Element - CMS Contexts

Contained By	Contains
Measure Data - CMS (V2) (required)	Aggregate Count - CMS

This observation represents whether the patient is Hispanic or not Hispanic and provides the number of patients in the population that report that ethnicity. For CMS eligible clinicians and programs, all codes present in the value set must be reported, even if the count is zero. If the eMeasure is episode-based, the count will reflect the patient count rather than the episode count.

Table 23: Ethnicity Supplemental Data Element - CMS (V2) Constraints Overview

observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.22']
 [templateId/@extension="2016-11-01"]

XPath	Card.	Verb	Data Type	CONF#	Value
@classCode	1..1	SHALL		2233-18216	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		2233-18217	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		2233-711253	
@root	1..1	SHALL		2233-711254	2.16.840.1.113883.10.20.27.3.22
@extension	1..1	SHALL		2233-711312	2016-11-01
templateId	1..1	SHALL		2233-18218	
@root	1..1	SHALL		2233-18219	2.16.840.1.113883.10.20.27.3.7
@extension	0..1	SHALL		2233-21176	2016-09-01
code	1..1	SHALL		2233-18220	
@code	1..1	SHALL		2233-18221	69490-1
@codeSystem	1..1	SHALL		2233-21164	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		2233-18118	
@code	1..1	SHALL		2233-18119	urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	CD	2233-18222	urn:oid:2.16.840.1.114222.4.11.837 (Ethnicity)
entryRelationship	1..1	SHALL		2233-18120	
@typeCode	1..1	SHALL		2233-18121	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		2233-18122	true
observation	1..1	SHALL		2233-711201	Aggregate Count - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24)

1. **Conforms to Ethnicity Supplemental Data Element (V2) template** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.7:2016-09-01).
2. **SHALL** contain exactly one [1..1] **@classCode="OBS"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:2233-18216).
3. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:2233-18217).

4. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-711253) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.27.3.22" (CONF:2233-711254).
 - b. **SHALL** contain exactly one [1..1] **@extension**="2016-11-01" (CONF:2233-711312).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-18218) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.27.3.7" (CONF:2233-18219).
Note: Ethnicity Supplemental Data Element (V2) templateId
 - b. **SHALL** contain exactly one [1..1] **@extension**="2016-09-01" (CONF:2233-21176).
6. **SHALL** contain exactly one [1..1] **code** (CONF:2233-18220).
 - a. This code **SHALL** contain exactly one [1..1] **@code**="69490-1" Ethnic (CONF:2233-18221).
 - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:2233-21164).
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:2233-18118).
 - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:2233-18119).
8. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", where the code **SHALL** be selected from ValueSet **Ethnicity** urn:oid:2.16.840.1.114222.4.11.837 **DYNAMIC** (CONF:2233-18222).
9. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:2233-18120) such that it
 - a. **SHALL** contain exactly one [1..1] **@typeCode**="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:2233-18121).
 - b. **SHALL** contain exactly one [1..1] **@inversionInd**="true" (CONF:2233-18122).
 - c. **SHALL** contain exactly one [1..1] Aggregate Count - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24) (CONF:2233-711201).

Figure 26: Ethnicity Supplemental Data Element - CMS (V2) Example

```

<observation classCode="OBS" moodCode="EVN">
  <!-- Ethnicity Supplemental Data Element template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.7" extension="2016-
09-01"/>
  <!-- Ethnicity Supplemental Data Element - CMS template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.22"
extension="2016-11-01"/>
  <code code="69490-1" displayName="Ethnic"
    codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    code="2186-5" displayName="Not Hispanic or Latino"
    codeSystem="2.16.840.1.113883.6.238" codeSystemName="Race
Ethnicity - CDC"/>
  <!-- Aggregate Count - CMS -->
  <entryRelationship typeCode="SUBJ" inversionInd="true">
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </entryRelationship>
</observation>

```

5.3.8 Improvement Activity Performed Measure Reference and Results

```

[organizer: identifier
urn:hl7ii:2.16.840.1.113883.10.20.27.3.33:2016-09-01 (open)]

```

Table 24: Improvement Activity Performed Measure Reference and Results Contexts

Contained By	Contains
Improvement Activity Section (V2) (required)	Measure Performed

This template defines the way that an improvement activity should be referenced and reported. Improvement activity is referenced through `externalAct` reference to an `externalDocument`. The `externalDocument/id` is used to reference the improvement activity.

When submitting improvement activities to CMS for the MIPS programs, the performance period could be specified either at the individual improvement activity level, using a Reporting Parameter Act template contained within the Improvement Activity Performed Measure Reference and Results template, or at the Improvement Activities performance category level. However, specifying performance period at both the individual activity level and the Improvement Activities performance category level is not permitted.

Table 25: Improvement Activity Performed Measure Reference and Results Constraints Overview

```

observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.33']
[templateId/@extension="2016-09-01"]

```

XPath	Card.	Verb	Data Type	CONF#	Value
@classCode	1..1	SHALL		3259-21434	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER

XPath	Card.	Verb	Data Type	CONF#	Value
@moodCode	1..1	SHALL		3259-21435	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		3259-21425	
@root	1..1	SHALL		3259-21432	2.16.840.1.113883.10.20.27.3.33
@extension	1..1	SHALL		3259-21433	2016-09-01
reference	1..1	SHALL		3259-21422	
@typeCode	1..1	SHALL		3259-21431	REFR
externalDocument	1..1	SHALL		3259-21423	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass)
@classCode	1..1	SHALL		3259-21430	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = DOC
id	1..1	SHALL		3259-21424	
@root	1..1	SHALL		3259-21427	2.16.840.1.113883.3.7034
@extension	1..1	SHALL		3259-21428	
text	0..1	SHOULD		3259-21429	
component	1..1	SHALL		3259-21421	
observation	1..1	SHALL		3259-21426	Measure Performed (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.27:2016-09-01)

1. Conforms to Measure Reference template (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.98).
2. **SHALL** contain exactly one [1..1] @classCode="CLUSTER" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:3259-21434).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:3259-21435).
4. **SHALL** contain exactly one [1..1] templateId (CONF:3259-21425) such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.33" (CONF:3259-21432).
 - b. **SHALL** contain exactly one [1..1] @extension="2016-09-01" (CONF:3259-21433).
5. **SHALL** contain exactly one [1..1] reference (CONF:3259-21422) such that it
 - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" (CONF:3259-21431).
 - b. **SHALL** contain exactly one [1..1] externalDocument (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:3259-21423).

- i. This externalDocument **SHALL** contain exactly one [1..1] **@classCode="DOC"** Document (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3259-21430).
- ii. This externalDocument **SHALL** contain exactly one [1..1] **id** (CONF:3259-21424) such that it
 - 1. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.3.7034"** (CONF:3259-21427).
Note: This OID indicates that the **@extension** contains improvement activity identifier
 - 2. **SHALL** contain exactly one [1..1] **@extension** (CONF:3259-21428).
Note: This **@extension** is the value of improvement activity identifier

This text is the title and optionally a brief description of the improvement activity.

- iii. This externalDocument **SHOULD** contain zero or one [0..1] **text** (CONF:3259-21429).
6. **SHALL** contain exactly one [1..1] **component** (CONF:3259-21421) such that it
- a. **SHALL** contain exactly one [1..1] [Measure Performed](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.27:2016-09-01) (CONF:3259-21426).

Figure 27: Improvement Activity Performed Reference and Results Example

```

<organizer classCode="CLUSTER" moodCode="EVN">
  <!-- Measure Reference template -->
  <templateId root="2.16.840.1.113883.10.20.24.3.98"/>
  <!-- Improvement activity Performed Reference and Results -->
  <templateId root="2.16.840.1.113883.10.20.27.3.33"
extension="2016-09-01"/>
  <id root="ac575aef-7062-4ea2-b723-df517cfa470a"/>
  <statusCode code="completed"/>
  <reference typeCode="REFR">
    <!-- Reference to a particular improvement activity's unique
identifier. -->
    <externalDocument classCode="DOC" moodCode="EVN">
      <!-- extension is the unique identifier for an improvement
activity.-->
      <id root="2.16.840.1.113883.3.7034" extension="IA_EPA_2"/>
      <!-- improvement activity title -->
      <text>Use of telehealth services that expand practice
access</text>
    </externalDocument>
  </reference>
  <component>
    <!-- Measure Performed -->
    ...
  </component>
</organizer>

```

5.3.9 Measure Data - CMS (V2)

```

[observation: identifier
urn:hl7ii:2.16.840.1.113883.10.20.27.3.16:2016-11-01 (open)]

```

Table 26: Measure Data - CMS(V2) Contexts

Contained By	Contains
Measure Reference and Results - CMS (V2) (required)	Aggregate Count - CMS Continuous Variable Measure Value - CMS Ethnicity Supplemental Data Element - CMS (V2) Payer Supplemental Data Element - CMS (V2) Race Supplemental Data Element - CMS (V2) Reporting Stratum - CMS Sex Supplemental Data Element - CMS (V2)

This observation asserts a population into which a subject falls and provides the number of patients in the population. It may also contain reporting stratum, supplemental data element counts, and continuous variables that are relevant to the population. The measure data entry must reference a unique measure population ID.

Populations that are used in eCQMs can be complicated. The simple case has one each of initial population (IPOP), numerator, and denominator, along with denominator exclusions and denominator exceptions. It is also possible to have eCQMs with multiple population groups (a population group is a set of IPP, numerator, denominator, etc.), and eCQMs with multiple denominators and numerators (e.g., an eCQM with 3 denominators and 2 numerators will require a QRDA Category III report with 6 sets of data). QRDA Category III reports were

designed to allow the representation of data sets that map to all of these types of multiple populations.

A measure may not be submitted more than once in the same file. The same population may not be submitted more than once in the same measure. Uniqueness of a measure is determined based on the UUID provided for it in the associated `reference/externalDocument/id`. This `id` **SHALL** equal the version specific identifier that comes from the applicable HQMF file. Uniqueness of a population is determined based on the UUID provided for it in the associated `reference/externalObservation/id`. This `id` **SHALL** equal the respective population identifier that comes from the applicable HQMF file.

Table 27: Measure Data - CMS (V2) Constraints Overview

observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.16']
[templateId/@extension="2016-11-01"]

XPath	Card.	Verb	Data Type	CONF#	Value
@classCode	1..1	SHALL		2233-17615	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		2233-17616	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		2233-711266	
@root	1..1	SHALL		2233-711267	2.16.840.1.113883.10.20.27.3.16
@extension	1..1	SHALL		2233-711287	2016-11-01
templateId	1..1	SHALL		2233-17912	
@root	1..1	SHALL		2233-17913	2.16.840.1.113883.10.20.27.3.5
@extension	1..1	SHALL		2233-711288	2016-09-01
code	1..1	SHALL		2233-17617	
@code	1..1	SHALL		2233-18198	ASSERTION
@codeSystem	1..1	SHALL		2233-711318	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		2233-18199	urn:oid:2.16.840.1.113883.5.14 (ActStatus)
@code	1..1	SHALL		2233-19555	urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	CD	2233-17618	urn:oid:2.16.840.1.113883.1.11.20369 (ObservationPopulationInclusion)
entryRelationship	1..1	SHALL		2233-17619	
@typeCode	1..1	SHALL		2233-17910	SUBJ

XPath	Card.	Verb	Data Type	CONF#	Value
@inversionInd	1..1	SHALL		2233-17911	true
observation	1..1	SHALL		2233-711198	Aggregate Count - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24)
entryRelationship	0..*	MAY		2233-17918	
@typeCode	1..1	SHALL		2233-17919	COMP
observation	1..1	SHALL		2233-711180	Reporting Stratum - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.20)
entryRelationship	1..*	SHALL		2233-711190	
@typeCode	1..1	SHALL		2233-18137	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		2233-711181	Sex Supplemental Data Element - CMS (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.21:2016-11-01)
entryRelationship	1..*	SHALL		2233-711191	
@typeCode	1..1	SHALL		2233-18144	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		2233-711182	Ethnicity Supplemental Data Element - CMS (V2) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.22:2016-11-01)
entryRelationship	1..*	SHALL		2233-711192	
@typeCode	1..1	SHALL		2233-18145	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		2233-711183	Race Supplemental Data Element - CMS (V2) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.19:2016-11-01)
entryRelationship	1..*	SHALL		2233-711193	
@typeCode	1..1	SHALL		2233-18146	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		2233-711184	Payer Supplemental Data Element - CMS (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.18:2016-11-01)
entryRelationship	0..*	MAY		2233-18143	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		2233-18148	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		2233-711212	Continuous Variable Measure Value - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.26)
reference	1..1	SHALL		2233-18239	
externalObservation	1..1	SHALL		2233-18240	
id	1..1	SHALL		2233-711233	

1. Conforms to Measure Data (V3) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.5:2016-09-01).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:2233-17615).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:2233-17616).
4. **SHALL** contain exactly one [1..1] templateId (CONF:2233-711266) such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.16" (CONF:2233-711267).
 - b. **SHALL** contain exactly one [1..1] @extension="2016-11-01" (CONF:2233-711287).
5. **SHALL** contain exactly one [1..1] templateId (CONF:2233-17912) such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.5" (CONF:2233-17913).
Note: Measure Data (V3) templateId
 - b. **SHALL** contain exactly one [1..1] @extension="2016-09-01" (CONF:2233-711288).
6. **SHALL** contain exactly one [1..1] code (CONF:2233-17617).
 - a. This code **SHALL** contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:2233-18198).
 - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:2233-711318).
7. **SHALL** contain exactly one [1..1] statusCode (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:2233-18199).
 - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:2233-19555).
8. **SHALL** contain exactly one [1..1] value with @xsi:type="CD", where the code **SHOULD** be selected from ValueSet PopulationInclusionObservationType urn:oid:2.16.840.1.113883.1.11.20479 **DYNAMIC** (CONF:2233-17618).
9. **SHALL** contain exactly one [1..1] entryRelationship (CONF:2233-17619) such that it
 - a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" (CONF:2233-17910).
 - b. **SHALL** contain exactly one [1..1] @inversionInd="true" (CONF:2233-17911).

- c. **SHALL** contain exactly one [1..1] [Aggregate Count - CMS](#) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24) (CONF:2233-711198).
- 10. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:2233-17918) such that it
 - a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CONF:2233-17919).
 - b. **SHALL** contain exactly one [1..1] [Reporting Stratum - CMS](#) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.20) (CONF:2233-711180).
- 11. **SHALL** contain at least one [1..*] **entryRelationship** (CONF:2233-711190) such that it
 - a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:2233-18137).
 - b. **SHALL** contain exactly one [1..1] [Sex Supplemental Data Element - CMS \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.21:2016-11-01) (CONF:2233-711181).
- 12. **SHALL** contain at least one [1..*] **entryRelationship** (CONF:2233-711191) such that it
 - a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:2233-18144).
 - b. **SHALL** contain exactly one [1..1] [Ethnicity Supplemental Data Element - CMS \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.22:2016-11-01) (CONF:2233-711182).
- 13. **SHALL** contain at least one [1..*] **entryRelationship** (CONF:2233-711192) such that it
 - a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:2233-18145).
 - b. **SHALL** contain exactly one [1..1] [Race Supplemental Data Element - CMS \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.19:2016-11-01) (CONF:2233-711183).
- 14. **SHALL** contain at least one [1..*] **entryRelationship** (CONF:2233-711193) such that it
 - a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:2233-18146).
 - b. **SHALL** contain exactly one [1..1] [Payer Supplemental Data Element - CMS \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.18:2016-11-01) (CONF:2233-711184).

If observation/value/@code="MSRPOPL" then the following entryRelationship SHALL be present.

- 15. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:2233-18143) such that it
 - a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:2233-18148).
 - b. **SHALL** contain exactly one [1..1] [Continuous Variable Measure Value - CMS](#) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.26) (CONF:2233-711212).
- 16. **SHALL** contain exactly one [1..1] **reference** (CONF:2233-18239) such that it
 - a. **SHALL** contain exactly one [1..1] **externalObservation** (CONF:2233-18240).

- i. This externalObservation **SHALL** contain exactly one [1..1] **id** (CONF:2233-711233).

Note: This is the id defined in the corresponding eMeasure population criteria section.

Figure 28: Measure Data - CMS (V2) Example

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Measure Data (V3) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.5" extension="2016-
09-01"/>
  <!-- Measure Data - CMS (V2) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.16"
extension="2016-11-01"/>
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
    displayName="Assertion" codeSystemName="ActCode"/>
  <statusCode code="completed"/>
  <value xsi:type="CD" code="IPOP"
    codeSystem="2.16.840.1.113883.5.4"
    displayName="initial population"
    codeSystemName="ActCode"/>
  <!-- Aggregate Count - CMS -->
  <entryRelationship typeCode="SUBJ" inversionInd="true">
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </entryRelationship>
  <!-- Sex Supplemental Data Element - CMS (V2) -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </entryRelationship>
  <!-- Ethnicity Supplemental Data Element - CMS (V2) -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </entryRelationship>
  <!-- Race Supplemental Data Element - CMS (V2) -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </entryRelationship>
  <!-- Payer Supplemental Data Element - CMS (V2) -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </entryRelationship>
  <!-- reference to the relevant population in the eCQM -->
  <reference typeCode="REFR">
    <externalObservation classCode="OBS" moodCode="EVN">
      <id root="670DFFA3-F2EE-4CF7-9083-743F2C1D7D50"/>
      <!-- This is the population ID in the eCQM.
        In this case, the IPOP -->
    </externalObservation>
  </reference>
</observation>
```

5.3.10 Measure Performed

```
[observation: identifier
urn:hl7ii:2.16.840.1.113883.10.20.27.3.27:2016-09-01 (open)]
```

Table 28: Measure Performed Contexts

Contained By	Contains
Promoting Interoperability Measure Performed Measure Reference and Results (required)	
Improvement Activity Performed Measure Reference and Results (required)	

This template reports whether a measurement was performed or not.

Table 29: Measure Performed Constraints Overview

```
organizer[templateId/@root = '2.16.840.1.113883.10.20.27.3.27']
[templateId/@extension="2016-09-01"]
```

XPath	Card.	Verb	Data Type	CONF#	Value
@classCode	1..1	SHALL		3259-21221	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		3259-21222	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		3259-21185	
@root	1..1	SHALL		3259-21203	2.16.840.1.113883.10.20.27.3.27
@extension	1..1	SHALL		3259-21399	2016-09-01
code	1..1	SHALL		3259-21382	
@code	1..1	SHALL		3259-21392	ASSERTION
@codeSystem	1..1	SHALL		3259-21393	urn:oid:2.16.840.1.113883.5.4 (ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		3259-21440	
@code	1..1	SHALL		3259-21442	urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	CD	3259-21391	urn:oid:2.16.840.1.114222.4.11.8 19 (Yes No Indicator (HL7))

1. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:3259-21221).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:3259-21222).
3. **SHALL** contain exactly one [1..1] templateId (CONF:3259-21185) such that it

- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.27.3.27" (CONF:3259-21203).
 - b. **SHALL** contain exactly one [1..1] **@extension**="2016-09-01" (CONF:3259-21399).
4. **SHALL** contain exactly one [1..1] **code** (CONF:3259-21382).
 - a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:3259-21392).
 - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3259-21393).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:3259-21440).
 - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3259-21442).
6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", where the code **SHALL** be selected from ValueSet Yes No Indicator (HL7) urn:oid:2.16.840.1.114222.4.11.819 DYNAMIC (CONF:3259-21391).

Figure 29: Measure Performed Example

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Measure Performed -->
  <templateId root="2.16.840.1.113883.10.20.27.3.27"
extension="2016-09-01"/>
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="ActCode" displayName="Assertion"/>
  <statusCode code="completed"/>
  <value xsi:type="CD" code="Y" displayName="Yes"
codeSystemName="Yes/no indicator (HL7 Table 0136)"
codeSystem="2.16.840.1.113883.12.136"/>
</observation>
```

5.3.11 Measure Reference and Results - CMS (V2)

```
[organizer: identifier
urn:hl7ii:2.16.840.1.113883.10.20.27.3.17:2016-11-01 (open)]
```

Table 30: Measure Reference and Results - CMS (V2) Contexts

Contained By	Contains
QRDA Category III Measure Section - CMS (V2) (required)	Measure Data - CMS (V2) Performance Rate for Proportion Measure - CMS (V2)

This template defines the way that a measure should be referenced. Measures are referenced through `externalAct` reference to an `externalDocument`. The `externalDocument/ids` and version numbers are used to reference the measure. Component entries can be used to report various rates, aggregate counts (e.g., number of patients in the measure's denominator); stratified aggregate counts (e.g., number of male patients in the measure's denominator); or continuous variables from continuous variable measures.

Table 31: Measure Reference and Results - CMS (V2) Constraints Overview

organizer[templated/@root = '2.16.840.1.113883.10.20.27.3.17']
 [templated/@extension="2016-11-01"]

XPath	Card.	Verb	Data Type	CONF#	Value
@classCode	1..1	SHALL		2233-17887	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		2233-17888	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templated	1..1	SHALL		2233-711268	
@root	1..1	SHALL		2233-711269	2.16.840.1.113883.10.20.27.3.17
@extension	1..1	SHALL		2233-711297	2016-11-01
templated	1..1	SHALL		2233-19532	
@root	1..1	SHALL		2233-19533	2.16.840.1.113883.10.20.24.3.98
templated	1..1	SHALL		2233-17908	
@root	1..1	SHALL		2233-17909	2.16.840.1.113883.10.20.27.3.1
@extension	1..1	SHALL		2233-21170	2016-09-01
statusCode	1..1	SHALL		2233-17889	
@code	1..1	SHALL		2233-19552	urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed
reference	1..1	SHALL		2233-17890	
@typeCode	1..1	SHALL		2233-17891	REFR
externalDocument	1..1	SHALL		2233-17892	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass)
@classCode	1..1	SHALL		2233-19548	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = DOC
id	1..1	SHALL		2233-18192	
@root	1..1	SHALL		2233-18193	2.16.840.1.113883.4.738
@extension	1..1	SHALL		2233-711289	
code	0..1	SHOULD		2233-17896	urn:oid:2.16.840.1.113883.6.1 (LOINC)
@code	1..1	SHALL		2233-19553	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 57024-2
text	0..1	SHOULD		2233-17897	

XPath	Card.	Verb	Data Type	CONF#	Value
component	0..*	MAY		2233-17903	
observation	1..1	SHALL		2233-711213	Performance Rate for Proportion Measure - CMS (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.25:2016-11-01)
component	1..*	SHALL		2233-18425	
observation	1..1	SHALL		2233-711296	Measure Data - CMS (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.16:2016-11-01)

1. **Conforms to Measure Reference and Results (V3) template** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.1:2016-09-01).
2. **SHALL** contain exactly one [1..1] **@classCode="CLUSTER"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:2233-17887).
3. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:2233-17888).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-711268) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.27.3.17"** (CONF:2233-711269).
 - b. **SHALL** contain exactly one [1..1] **@extension="2016-11-01"** (CONF:2233-711297).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-19532) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.3.98"** (CONF:2233-19533).
Note: Measure Reference templateId
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-17908) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.27.3.1"** (CONF:2233-17909).
Note: Measure Reference and Results (V3) templateId
 - b. **SHALL** contain exactly one [1..1] **@extension="2016-09-01"** (CONF:2233-21170).
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:2233-17889).
 - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:2233-19552).
8. **SHALL** contain exactly one [1..1] **reference** (CONF:2233-17890) such that it
 - a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** (CONF:2233-17891).
 - b. **SHALL** contain exactly one [1..1] **externalDocument** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:2233-17892).
 - i. This externalDocument **SHALL** contain exactly one [1..1] **@classCode="DOC"** Document (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:2233-19548).
 - ii. This externalDocument **SHALL** contain exactly one [1..1] **id** (CONF:2233-18192) such that it

1. **SHALL** contain exactly one [1..1]

@root="2.16.840.1.113883.4.738" (CONF:2233-18193).

Note: This OID indicates that the @extension contains the version specific identifier for the eMeasure

2. **SHALL** contain exactly one [1..1] @extension (CONF:2233-711289).

Note: This @extension SHALL equal the version specific identifier for eMeasure (i.e. QualityMeasureDocument/id)

iii. This externalDocument **SHOULD** contain zero or one [0..1] code

(CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 **STATIC**)

(CONF:2233-17896).

1. The code, if present, **SHALL** contain exactly one [1..1]

@code="57024-2" Health Quality Measure Document

(CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1)

(CONF:2233-19553).

This text is the title and optionally a brief description of the Quality Measure.

iv. This externalDocument **SHOULD** contain zero or one [0..1] text

(CONF:2233-17897).

9. **MAY** contain zero or more [0..*] component (CONF:2233-17903) such that ita. **SHALL** contain exactly one [1..1] [Performance Rate for Proportion Measure - CMS \(V2\)](#) (identifier:

urn:hl7ii:2.16.840.1.113883.10.20.27.3.25:2016-11-01)

(CONF:2233-711213).

10. **SHALL** contain at least one [1..*] component (CONF:2233-18425) such that ita. **SHALL** contain exactly one [1..1] [Measure Data - CMS \(V2\)](#) (identifier:

urn:hl7ii:2.16.840.1.113883.10.20.27.3.16:2016-11-01)

(CONF:2233-711296).

Figure 30: Measure Reference and Results - CMS (V2) Example

```

<organizer classCode="CLUSTER" moodCode="EVN">
  <!-- Measure Reference template ID -->
  <templateId root="2.16.840.1.113883.10.20.24.3.98" />
  <!-- Measure Reference and Results (V3) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.1"
extension="2016-09-01"/>
  <!-- Measure Reference and Results - CMS (V2) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.17"
extension="2016-11-01"/>
  <statusCode code="completed" />
  <reference typeCode="REFR">
    <externalDocument classCode="DOC" moodCode="EVN">
      <!-- This is the version-specific identifier for eCQM -->
      <id root="2.16.840.1.113883.4.738"
extension="40280381-3d61-56a7-013e-66a5a5834990"/>
      <code code="57024-2"
displayName="Health Quality Measure Document"
codeSystemName="LOINC"
codeSystem="2.16.840.1.113883.6.1" />
      <!-- This is the title of the eCQM -->
      <text>Breast Cancer Screening</text>
    </externalDocument>
  </reference>
</component>
  <!-- Performance Rate for Proportion Measure - CMS (V2) -->
  <observation classCode="OBS" moodCode="EVN">
    ...
  </observation>
</component>
</organizer>

```

5.3.12 Payer Supplemental Data Element - CMS (V2)

```

[observation: identifier
urn:hl7ii:2.16.840.1.113883.10.20.27.3.18:2016-11-01 (open)]

```

Table 32: Payer Supplemental Data Element (V2) – CMS Contexts

Contained By	Contains
Measure Data - CMS (V2) (required)	Aggregate Count - CMS

This observation represents the policy or program providing the coverage for the patients being reported on and provides the number of patients in the population that are covered by that policy or program. When a patient has multiple payers, only count the primary payer (usually this is the first payer listed). For CMS eligible clinicians and eligible professionals programs, all codes present in the value set must be reported, even if the count is zero. If an eCQM is episode-based, the count will reflect the patient count rather than the episode count.

Individual payer codes from the Public Health Data Standards Consortium Source of Payment Typology (2.16.840.1.113883.3.221.5) have been grouped for QRDA-III aggregate reports.

Table 33: Payer Supplemental Data Element - CMS (V2) Constraints Overview

observation[templateId/@root='2.16.840.1.113883.10.20.27.3.18']
[templateId/@extension="2016-11-01"]

XPath	Card.	Verb	Data Type	CONF#	Value
@classCode	1..1	SHALL		2233-21155	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		2233-21156	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		2233-711270	
@root	1..1	SHALL		2233-711271	2.16.840.1.113883.10.20.27.3.18
@extension	1..1	SHALL		2233-711299	2016-11-01
templateId	1..1	SHALL		2233-18237	
@root	1..1	SHALL		2233-18238	2.16.840.1.113883.10.20.27.3.9
@extension	1..1	SHALL		2233-21157	2016-02-01
code	1..1	SHALL		2233-21158	
@code	1..1	SHALL		2233-21159	48768-6
@codeSystem	1..1	SHALL		2233-21165	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		2233-18106	
@code	1..1	SHALL		2233-18107	urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	CD	2233-711196	
translation	1..1	SHALL		2233-711230	
@code	1..1	SHALL		2233-711231	urn:oid:2.16.840.1.113883.3.249.14.1 02 (CMS Payer Groupings)
@nullFlavor	1..1	SHALL		2233-711229	OTH
entryRelationship	1..1	SHALL		2233-18108	
@typeCode	1..1	SHALL		2233-18109	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		2233-18110	true
observation	1..1	SHALL		2233-711199	Aggregate Count - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24)

1. Conforms to Payer Supplemental Data Element (V2) **template** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.9:2016-02-01).

2. **SHALL** contain exactly one [1..1] **@classCode="OBS"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:2233-21155).
3. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:2233-21156).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-711270) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.27.3.18"** (CONF:2233-711271).
 - b. **SHALL** contain exactly one [1..1] **@extension="2016-11-01"** (CONF:2233-711299).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-18237) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.27.3.9"** (CONF:2233-18238).
Note: Payer Supplemental Data Element (V2) templateId
 - b. **SHALL** contain exactly one [1..1] **@extension="2016-02-01"** (CONF:2233-21157).
6. **SHALL** contain exactly one [1..1] **code** (CONF:2233-21158).
 - a. This code **SHALL** contain exactly one [1..1] **@code="48768-6"** Payment Source (CONF:2233-21159).
 - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.1"** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:2233-21165).
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:2233-18106).
 - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:2233-18107).
8. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"** (CONF:2233-711196).
 - a. This value **SHALL** contain exactly one [1..1] **translation** (CONF:2233-711230).
 - i. This translation **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [CMS Payer Groupings](#) urn:oid:2.16.840.1.113883.3.249.14.102 (CONF:2233-711231).
 - b. This value **SHALL** contain exactly one [1..1] **@nullFlavor="OTH"** (CONF:2233-711229).
9. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:2233-18108) such that it
 - a. **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:2233-18109).
 - b. **SHALL** contain exactly one [1..1] **@inversionInd="true"** (CONF:2233-18110).
 - c. **SHALL** contain exactly one [1..1] [Aggregate Count - CMS](#) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24) (CONF:2233-711199).

Table 34: CMS Payer Groupings

Value Set: CMS Payer Groupings 2.16.840.1.113883.3.249.14.102			
Values specifying the primary payer for CMS QRDA-III report submissions that groups codes from the Public Health Data Standards Consortium Source of Payment Typology (2.16.840.1.113883.3.221.5). Codes are grouped as follows:			
Payer Grouping A: Medicare (1)			
Payer Grouping B: Medicaid (2)			
Payer Grouping C: Private Health Insurance (5), Blue Cross/Blue Shield (6)			
Payer Grouping D: Other Government (3), Department of Corrections (4), Managed Care Unspecified (7), No Payment Listed (8), Miscellaneous/Other (9)			
Code	Code System	Code System OID	Print Name
A	CMS Clinical Codes	2.16.840.1.113883.3.249.12	Medicare
B	CMS Clinical Codes	2.16.840.1.113883.3.249.12	Medicaid
C	CMS Clinical Codes	2.16.840.1.113883.3.249.12	Private Health Insurance
D	CMS Clinical Codes	2.16.840.1.113883.3.249.12	Other

Figure 31: Payer Supplemental Data Element - CMS (V2) Example

```

<observation classCode="OBS" moodCode="EVN">
  <!-- Payer Supplemental Data Element (V2) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.9"
extension="2016-02-01"/>
  <!-- Payer Supplemental Data Element - CMS (V2) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.18"
extension="2016-11-01"/>
  <code code="48768-6" displayName="Payment source"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"/>
  <statusCode code="completed"/>
  <!-- Parent template requires "SHALL be drawn from
    Value Set: PHDSC Source of Payment Typology
    2.16.840.1.114222.4.11.3591 DYNAMIC"-->
  <!-- CMS Prefers to group the insurances more broadly than the
    Source of Payment Typology allows. Therefore,
    nullFlavor of OTH will be used and CMS local codes used to
    identify groupings-->
  <value xsi:type="CD" nullFlavor="OTH">
    <translation code="A" displayName="Medicare"
      codeSystem="2.16.840.1.113883.3.249.12"
      codeSystemName="CMS Clinical Codes"/>
  </value>
  <entryRelationship typeCode="SUBJ" inversionInd="true">
    <!-- Aggregate Count - CMS -->
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </entryRelationship>
</observation>

```

5.3.13 Performance Rate

```
[observation: identifier
urn:hl7ii:2.16.840.1.113883.10.20.27.3.30:2016-09-01 (open)]
```

Table 35: Performance Rate Contexts

Contained By	Contains
Promoting Interoperability Numerator Denominator Type Measure Reference and Results (V2) (required)	

Table 36: Performance Rate Constraints Overview

```
observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.30']
[templateId/@extension="2016-09-01"]
```

XPath	Card.	Verb	Data Type	CONF#	Value
@classCode	1..1	SHALL		3259-21303	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		3259-21304	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		3259-21298	
@root	1..1	SHALL		3259-21310	2.16.840.1.113883.10.20.27.3.30
@extension	1..1	SHALL		3259-21441	2016-09-01
code	1..1	SHALL		3259-21294	
@code	1..1	SHALL		3259-21305	72510-1
@codeSystem	1..1	SHALL		3259-21306	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		3259-21297	
@code	1..1	SHALL		3259-21309	urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	REAL	3259-21307	

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:3259-21303).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:3259-21304).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:3259-21298) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.27.3.30"** (CONF:3259-21310).
 - b. **SHALL** contain exactly one [1..1] **@extension="2016-09-01"** (CONF:3259-21441).
4. **SHALL** contain exactly one [1..1] **code** (CONF:3259-21294).

- a. This code **SHALL** contain exactly one [1..1] @code="72510-1" Performance Rate (CONF:3259-21305).
- b. This code **SHALL** contain exactly one [1..1]
@codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC
urn:oid:2.16.840.1.113883.6.1) (CONF:3259-21306).
5. **SHALL** contain exactly one [1..1] statusCode (CONF:3259-21297).
 - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:3259-21309).
6. **SHALL** contain exactly one [1..1] value with @xsi:type="REAL" (CONF:3259-21307).

Figure 32: Performance Rate Example

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.27.3.30"
extension="2016-09-01"/>
  <code code="72510-1" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Performance Rate"/>
  <statusCode code="completed"/>
  <value xsi:type="REAL" value="0.750000"/>
</observation>
```

5.3.13.1 Performance Rate for Proportion Measure – CMS (V2)

```
[observation: identifier
urn:hl7ii:2.16.840.1.113883.10.20.27.3.25:2016-11-01 (open)]
```

Table 37: Performance Rate for Proportion Measure – CMS (V2) Contexts

Contained By	Contains
Measure Reference and Results - CMS (V2) (optional)	

This template is only used with proportion measures. The performance rate is a ratio of patients that meet the numerator criteria divided by patients in the denominator (after accounting for exclusions and exceptions). Performance Rate is calculated using this formula: Performance Rate = (NUMER – NUMER EXCL) / (DENOM – DENOM EXCL – DENOM EXCEP).

Based on the Performance Rate calculation, a Performance Rate must not exceed 1 (e.g., 100, 1.5), since a value of 1 indicates 100%. The Performance Rate value that is provided in a QRDA Category III file should not be the Performance Rate times 100, but instead should be the value obtained from the calculation of (NUMER – NUMER EXCL)/(DENOM – DENOM EXCL – DENOM EXCEP), rounded to the nearest millionth; refer to the rounding rules listed in this section. In addition, if the expression (DENOM – DENOM EXCL – DENOM EXCEP) results in a null or a value of 0, then a nullFlavor of "NA" should be provided for the Performance Rate. Finally, if the expression (DENOM – DENOM EXCL – DENOM EXCEP) results in a value greater than or equal to 1 and a Numerator count equal to 0 is provided, then a Performance Rate of "0" should be submitted.

The following rounding rules must be used when submitting performance rates:

- For a calculated performance rate that has ≥ 7 digits after the decimal point, round the decimal number to the millionth.
- For a calculated performance rate that has ≤ 6 digits after the decimal point, rounding is not permitted for the performance rate.

Table 38: Performance Rate for Proportion Measure - CMS (V2) Constraints Overview

observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.25']
 [templateId/@extension="2016-11-01"]

XPath	Card.	Verb	Data Type	CONF#	Value
@classCode	1..1	SHALL		2233-18395	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		2233-18396	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		2233-711255	
@root	1..1	SHALL		2233-711256	2.16.840.1.113883.10.20.27.3.25
@extension	1..1	SHALL		2233-711320	2016-11-01
templateId	1..1	SHALL		2233-19649	
@root	1..1	SHALL		2233-19650	2.16.840.1.113883.10.20.27.3.14
@extension	1..1	SHALL		2233-711321	2016-09-01
templateId	1..1	SHALL		2233-711332	
@root	1..1	SHALL		2233-711334	2.16.840.1.113883.10.20.27.3.30
@extension	1..1	SHALL		2233-711335	2016-09-01
code	1..1	SHALL		2233-21294	
@code	1..1	SHALL		2233-21305	72510-1
@codeSystem	1..1	SHALL		2233-21306	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		2233-21297	
@code	1..1	SHALL		2233-21309	urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	REAL	2233-21307	
reference	1..1	SHALL		2233-711203	
@typeCode	1..1	SHALL		2233-19652	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
externalObservation	1..1	SHALL		2233-19653	
@classCode	1..1	SHALL		2233-19654	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass)
id	1..1	SHALL		2233-711204	

XPath	Card.	Verb	Data Type	CONF#	Value
@root	1..1	SHALL		2233-19656	
code	1..1	SHALL		2233-19657	
@code	1..1	SHALL		2233-19658	NUMER
@codeSystem	1..1	SHALL		2233-21180	urn:oid:2.16.840.1.113883.5.4 (ActCode) = 2.16.840.1.113883.5.4

1. Conforms to Performance Rate for Proportion Measure (V2) template
(identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.14:2016-09-01).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:2233-18395).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:2233-18396).
4. **SHALL** contain exactly one [1..1] templateId (CONF:2233-711255) such that it
 - a. **SHALL** contain exactly one [1..1]
@root="2.16.840.1.113883.10.20.27.3.25" (CONF:2233-711256).
 - b. **SHALL** contain exactly one [1..1] @extension="2016-11-01" (CONF:2233-711320).
5. **SHALL** contain exactly one [1..1] templateId (CONF:2233-19649) such that it
 - a. **SHALL** contain exactly one [1..1]
@root="2.16.840.1.113883.10.20.27.3.14" (CONF:2233-19650).
Note: Performance Rate for Proportion Measure (V2) templateId
 - b. **SHALL** contain exactly one [1..1] @extension="2016-09-01" (CONF:2233-711321).
6. **SHALL** contain exactly one [1..1] templateId (CONF:2233-711332) such that it
 - a. **SHALL** contain exactly one [1..1]
@root="2.16.840.1.113883.10.20.27.3.30" (CONF:2233-711334).
 - b. **SHALL** contain exactly one [1..1] @extension="2016-09-01" (CONF:2233-711335).
7. **SHALL** contain exactly one [1..1] code (CONF:2233-21294).
 - a. This code **SHALL** contain exactly one [1..1] @code="72510-1" Performance Rate (CONF:2233-21305).
 - b. This code **SHALL** contain exactly one [1..1]
@codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:2233-21306).
8. **SHALL** contain exactly one [1..1] statusCode (CONF:2233-21297).
 - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:2233-21309).
9. **SHALL** contain exactly one [1..1] value with @xsi:type="REAL" (CONF:2233-21307).
 - a. The value, if present, **SHALL** be greater than or equal to 0 and less than or equal to 1 (CONF:2233-711294).
 - b. The value, if present, **SHALL** contain no more than 6 digits to the right of the decimal (CONF:2233-711295).

This is a reference to the specific Numerator included in the calculation.

10. **SHALL** contain exactly one [1..1] **reference** (CONF:2233-711203).

- a. This reference **SHALL** contain exactly one [1..1] **@typeCode="REFR"** refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:2233-19652).
- b. This reference **SHALL** contain exactly one [1..1] **externalObservation** (CONF:2233-19653).
 - i. This externalObservation **SHALL** contain exactly one [1..1] **@classCode** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:2233-19654).
 - ii. This externalObservation **SHALL** contain exactly one [1..1] **id** (CONF:2233-19655).
 1. This id **SHALL** contain exactly one [1..1] **@root** (CONF:2233-19656).
Note: This is the ID of the numerator in the referenced eCQM.
 - iii. This externalObservation **SHALL** contain exactly one [1..1] **code** (CONF:2233-19657).
 1. This code **SHALL** contain exactly one [1..1] **@code="NUMER"** Numerator (CONF:2233-19658).
 2. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.4"** (CodeSystem: ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:2233-21180).

Figure 33: Performance Rate for Proportion Measure - CMS (V2) Example

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Performance Rate -->
  <templateId root="2.16.840.1.113883.10.20.27.3.30" extension="2016-09-01"/>
  <!-- Performance Rate for Proportion Measure (V2) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.14" extension="2016-09-01"/>
  <!-- Performance Rate for Proportion Measure - CMS (V2) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.25" extension="2016-11-01"/>
  <code code="72510-1" codeSystem="2.16.840.1.113883.6.1"
    displayName="Performance Rate"
    codeSystemName="2.16.840.1.113883.6.1"/>
  <statusCode code="completed"/>
  <value xsi:type="REAL" value="0.833000"/>
  <!-- This is the reference to the Numerator in the eCQM -->
  <reference typeCode="REFR">
    <externalObservation classCode="OBS" moodCode="EVN">
      <!-- The externalObservationID contains the ID of the numerator in the referenced eCQM. -->
      <id root="AE7A33AF-0DA7-4772-A23C-2D2CA732D53A"/>
      <code code="NUMER" displayName="Numerator"
        codeSystem="2.16.840.1.113883.5.4"
        codeSystemName="ActCode"/>
    </externalObservation>
  </reference>
</observation>
```

5.3.14 Race Supplemental Data Element - CMS (V2)

```
[observation: identifier
urn:hl7ii:2.16.840.1.113883.10.20.27.3.19:2016-11-01 (open)]
```

Table 39: Race Supplemental Data Element – CMS (V2) Contexts

Contained By	Contains
Measure Data - CMS (V2) (required)	Aggregate Count - CMS

This observation represents the race category reported by patients and provides the number of patients in the population that report that race category. For CMS eligible clinicians and eligible professionals programs, all codes present in the value set must be reported, even if the count is zero. If there are multiple race values reported for a patient, count as 'Other Race' value. For episode-based eCQMs, the count will reflect the patient count rather than the episode count.

Table 40: Race Supplemental Data Element - CMS Constraints Overview

```
observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.19']
[templateId/@extension="2016-11-01"]
```

XPath	Card.	Verb	Data Type	CONF#	Fixed Value
@classCode	1..1	SHALL		2233-18223	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		2233-18224	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		2233-711257	
@root	1..1	SHALL		2233-711258	2.16.840.1.113883.10.20.27.3.19
@extension	1..1	SHALL		2233-711315	2016-11-01
templateId	1..1	SHALL		2233-18225	
@root	1..1	SHALL		2233-18226	2.16.840.1.113883.10.20.27.3.8
@extension	0..1	SHALL		2233-21178	2016-09-01
code	1..1	SHALL		2233-18227	
@code	1..1	SHALL		2233-18228	72826-1
@codeSystem	1..1	SHALL		2233-21167	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		2233-18112	
@code	1..1	SHALL		2233-18113	urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	CD	2233-18229	urn:oid:2.16.840.1.114222.4.11.836 (Race)

XPath	Card.	Verb	Data Type	CONF#	Fixed Value
entryRelationship	1..1	SHALL		2233-18114	
@typeCode	1..1	SHALL		2233-18115	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		2233-18116	true
observation	1..1	SHALL		2233-711200	Aggregate Count - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24)

1. Conforms to Race Supplemental Data Element (V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.8:2016-09-01).
2. **SHALL** contain exactly one [1..1] **@classCode="OBS"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:2233-18223).
3. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:2233-18224).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-711257) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.27.3.19"** (CONF:2233-711258).
 - b. **SHALL** contain exactly one [1..1] **@extension="2016-11-01"** (CONF:2233-711315).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-18225) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.27.3.8"** (CONF:2233-18226).
Note: Race Supplemental Data Element (V2) templateId
 - b. **SHALL** contain zero or one [0..1] **@extension="2016-09-01"** (CONF:2233-21178).
6. **SHALL** contain exactly one [1..1] **code** (CONF:2233-18227).
 - a. This code **SHALL** contain exactly one [1..1] **@code="72826-1"** Race (CONF:2233-18228).
 - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.1"** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:2233-21167).
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:2233-18112).
 - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:2233-18113).
8. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"**, where the code **SHALL** be selected from ValueSet Race urn:oid:2.16.840.1.114222.4.11.836 **DYNAMIC** (CONF:2233-18229).
9. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:2233-18114) such that it
 - a. **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:2233-18115).
 - b. **SHALL** contain exactly one [1..1] **@inversionInd="true"** (CONF:2233-18116).
 - c. **SHALL** contain exactly one [1..1] [Aggregate Count - CMS](#) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24) (CONF:2233-711200).

Figure 34: Race Supplemental Data Element – CMS (V2) Example

```

<observation classCode="OBS" moodCode="EVN">
  <!-- Race Supplemental Data Element (V2) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.8"
extension="2016-09-01"/>
  <!-- Race Supplemental Data Element - CMS (V2) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.19"
extension="2016-11-01"/>
  <code code="72826-1"
    displayName="Race"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    code="2054-5"
    displayName="Black or African American"
    codeSystem="2.16.840.1.113883.6.238"
    codeSystemName="Race & Ethnicity - CDC"/>
  <entryRelationship typeCode="SUBJ" inversionInd="true">
    <!-- Aggregate Count - CMS -->
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </entryRelationship>
</observation>

```

5.3.15 Reporting Parameters Act

[act: identifier urn:oid:2.16.840.1.113883.10.20.17.3.8 (open)]

Table 41: Reporting Parameters Act Contexts

Contained By	Contains
Promoting Interoperability Section (V2) (required) QRDA Category III Measure Section - CMS (V2) (required) Improvement Activity Section (V2) (required)	

This template provides information about the performance period interval, and provides context for the patient data being reported to the CMS eligible clinicians and eligible professionals programs.

Table 42: Reporting Parameters Act Constraints Overview

act[templateId/@root = '2.16.840.1.113883.10.20.17.3.8']

XPath	Card.	Verb	Data Type	CONF#	Fixed Value
@classCode	1..1	SHALL		23-3269	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		23-3270	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		23-18098	
@root	1..1	SHALL		23-18099	2.16.840.1.113883.10.20.17.3.8
id	1..*	SHALL		23-26549	
code	1..1	SHALL		23-3272	
@code	1..1	SHALL		23-26550	252116004
@codeSystem	1..1	SHALL		23-26551	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
effectiveTime	1..1	SHALL		23-3273	
low	1..1	SHALL		23-3274	
high	1..1	SHALL		23-3275	

1. **SHALL** contain exactly one [1..1] **@classCode**="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:23-3269).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:23-3270).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:23-18098) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.17.3.8" (CONF:23-18099).
4. **SHALL** contain at least one [1..*] **id** (CONF:23-26549).
5. **SHALL** contain exactly one [1..1] **code** (CONF:23-3272).
 - a. This code **SHALL** contain exactly one [1..1] **@code**="252116004" Observation Parameters (CONF:23-26550).
 - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:23-26551).
6. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:23-3273).
 - a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:23-3274).
 - b. This effectiveTime **SHALL** contain exactly one [1..1] **high** (CONF:23-3275).

Figure 35: Reporting Parameters Act Example

```

<act classCode="ACT" moodCode="EVN">
  <!-- Reporting Parameters Act template ID -->
  <templateId root="2.16.840.1.113883.10.20.17.3.8"/>
  <id root="55a43e20-6463-46eb-81c3-9a3a1ad41225"/>
  <code code="252116004"
    codeSystem="2.16.840.1.113883.6.96"
    displayName="Observation Parameters" />
  <effectiveTime>
    <!-- The low value is the start date of the performance period-->
    <low value="20180101"/>
    <!-- The high value is the end date of the performance period -->
    <high value="20181231"/>
  </effectiveTime>
</act>

```

5.3.16 Reporting Stratum - CMS

```
[observation: templateId 2.16.840.1.113883.10.20.27.3.20 (open)]
```

Table 43: Reporting Stratum – CMS Contexts

Contained By	Contains
Measure Data - CMS (V2) (optional)	Aggregate Count - CMS Continuous Variable Measure Value - CMS

Stratifications are used to classify populations by one or more characteristics, variables, or other categories. As subsets of the overall population, they are used in risk adjustment, analysis and interpretation. Examples of stratification include age, discharge status for an inpatient stay, facility location within a hospital (e.g., ICU, Emergency Department), surgical procedures, and specific conditions.

This observation uses the `reference/externalObservation` element to reference the stratification used in the quality measure. The definition of the stratification is in the corresponding eCQM. The Reporting Stratum also provides the number of patients in the referenced stratification. Note that all strata must be present for CMS eligible clinicians and eligible professionals program reporting, even if the count is zero. Each stratum identified in the referenced eCQM(s), must be reported for each population. Each stratum may only be reported once for a specific population.

Table 44: Reporting Stratum – CMS Constraints Overview

observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.20']

XPath	Card	Verb	Data Type	CONF#	Fixed Value
@classCode	1..1	SHALL		1109-17575	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		1109-17576	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		1109-711274	
@root	1..1	SHALL		1109-711275	2.16.840.1.113883.10.20.27.3.20
templateId	1..1	SHALL		1109-18093	
@root	1..1	SHALL		1109-18094	2.16.840.1.113883.10.20.27.3.4
code	1..1	SHALL		1109-17577	
@code	1..1	SHALL		1109-17578	ASSERTION
@codeSystem	1..1	SHALL		1109-21169	urn:oid:2.16.840.1.113883.5.4 (ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		1109-17579	
@code	1..1	SHALL		1109-18201	urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed
value	0..1	SHOULD		1109-17580	
entryRelationship	1..1	SHALL		1109-17581	
@typeCode	1..1	SHALL		1109-17582	SUBJ
@inversionInd	1..1	SHALL		1109-17583	true
observation	1..1	SHALL		1109-711197	Aggregate Count - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24)
entryRelationship	0..*	MAY		1109-19511	
observation	1..1	SHALL		1109-711211	Continuous Variable Measure Value - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.26)
reference	1..1	SHALL		1109-18204	
@typeCode	1..1	SHALL		1109-18205	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
externalObservation	1..1	SHALL		1109-18206	

XPath	Card	Verb	Data Type	CONF#	Fixed Value
id	1..1	SHALL		1109-18207	

1. **Conforms to Reporting Stratum template** (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.4).
2. **SHALL** contain exactly one [1..1] **@classCode="OBS"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1109-17575).
3. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1109-17576).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1109-711274) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.27.3.20"** (CONF:1109-711275).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:1109-18093) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.27.3.4"** (CONF:1109-18094).
Note: Reporting Stratum templateId (QRDA III)
6. **SHALL** contain exactly one [1..1] **code** (CONF:1109-17577).
 - a. This code **SHALL** contain exactly one [1..1] **@code="ASSERTION"** Assertion (CONF:1109-17578).
 - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.4"** (CodeSystem: ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1109-21169).
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1109-17579).
 - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1109-18201).
8. **SHOULD** contain zero or one [0..1] **value** (CONF:1109-17580).
 - a. This value **SHALL** be the same as the contents of the observation/code element in the referenced eMeasure (e.g., 21112-8 'Birth date') (CONF:1109-711232).
9. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:1109-17581) such that it
 - a. **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** (CONF:1109-17582).
 - b. **SHALL** contain exactly one [1..1] **@inversionInd="true"** (CONF:1109-17583).
 - c. **SHALL** contain exactly one [1..1] [Aggregate Count - CMS](#) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24) (CONF:1109-711197).

The Continuous Variable template may also be nested inside the Reporting Stratum Template to represent continuous variables found in quality measures for the various strata.

10. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:1109-19511) such that it
 - a. **SHALL** contain exactly one [1..1] [Continuous Variable Measure Value - CMS](#) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.26) (CONF:1109-711211).
11. **SHALL** contain exactly one [1..1] **reference** (CONF:1109-18204).
 - a. This reference **SHALL** contain exactly one [1..1] **@typeCode="REFR"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1109-18205).
 - b. This reference **SHALL** contain exactly one [1..1] **externalObservation** (CONF:1109-18206).

- i. This externalObservation **SHALL** contain exactly one [1..1] **id** (CONF:1109-18207).

Note: This is the ID of the stratum in the referenced eMeasure.

Figure 36: Reporting Stratum- CMS Example

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Reporting Stratum template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.4"/>
  <!-- Reporting Stratum - CMS template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.20"/>
  <code code="ASSERTION"
        codeSystem="2.16.840.1.113883.5.4"
        displayName="Assertion"
        codeSystemName="ActCode"/>
  <statusCode code="completed"/>
  <value xsi:type="CD" nullFlavor="OTH">
    <originalText>Stratum</originalText>
  </value>
  <entryRelationship typeCode="SUBJ" inversionInd="true">
    <!-- Aggregate Count - CMS -->
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </entryRelationship>
  <reference typeCode="REFR">
    <!-- Reference to the relevant strata in the eCQM -->
    <externalObservation classCode="OBS" moodCode="EVN">
      <id root="9ACF2C09-8C0A-4BAD-97C1-DF6CB37E1AEB"/>
    </externalObservation>
  </reference>
</observation>
```

5.3.17 Sex Supplemental Data Element - CMS (V2)

```
[observation: identifier
urn:hl7ii:2.16.840.1.113883.10.20.27.3.21:2016-11-01 (open)]
```

Table 45: Sex Supplemental Data Element - CMS (V2) Contexts

Contained By	Contains
Measure Data - CMS (V2) (required)	Aggregate Count - CMS

This observation represents the sex of a person as used for administrative purposes (as opposed to clinical gender) and provides the number of patients in the population that are of that sex. For CMS eligible clinicians and eligible professionals programs, all codes present in the value set must be reported, even if the count is zero. If the eCQM is episode-based, the count will reflect the patient count rather than the episode count.

Table 46: Sex Supplemental Data Element - CMS (V2) Constraints Overview

```
observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.21']
[templateId/@extension='2016-11-01']
```

XPath	Card.	Verb	Data Type	CONF#	Fixed Value
@classCode	1..1	SHALL		2233-18230	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS

XPath	Card.	Verb	Data Type	CONF#	Fixed Value
@moodCode	1..1	SHALL		2233-18231	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		2233-711259	
@root	1..1	SHALL		2233-711260	2.16.840.1.113883.10.20.27.3.21
@extension	1..1	SHALL		2233-711301	2016-11-01
templateId	1..1	SHALL		2233-18232	
@root	1..1	SHALL		2233-18233	2.16.840.1.113883.10.20.27.3.6
@extension	1..1	SHALL		2233-21160	2016-09-01
code	1..1	SHALL		2233-18234	
@code	1..1	SHALL		2233-18235	76689-9
@codeSystem	1..1	SHALL		2233-21163	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		2233-18124	
@code	1..1	SHALL		2233-18125	urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	CD	2233-18236	urn:oid:2.16.840.1.113762.1.4.1 (ONC Administrative Sex)
entryRelationship	1..1	SHALL		2233-18126	
@typeCode	1..1	SHALL		2233-18127	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		2233-18128	true
observation	1..1	SHALL		2233-711202	Aggregate Count - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24)

1. Conforms to Sex Supplemental Data Element (V3) **template** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.6:2016-09-01).
2. **SHALL** contain exactly one [1..1] **@classCode="OBS"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:2233-18230).
3. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:2233-18231).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-711259) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.27.3.21"** (CONF:2233-711260).
 - b. **SHALL** contain exactly one [1..1] **@extension="2016-11-01"** (CONF:2233-711301).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-18232) such that it

- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.27.3.6" (CONF:2233-18233).
Note: Sex Supplemental Data Element (V3) templateId
- b. **SHALL** contain exactly one [1..1] **@extension**="2016-09-01" (CONF:2233-21160).
6. **SHALL** contain exactly one [1..1] **code** (CONF:2233-18234).
 - a. This code **SHALL** contain exactly one [1..1] **@code**="76689-9" Sex assigned at birth (CONF:2233-18235).
 - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:2233-21163).
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:2233-18124).
 - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:2233-18125).
8. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", where the code **SHALL** be selected from ValueSet **ONC Administrative Sex** urn:oid:2.16.840.1.113762.1.4.1 **DYNAMIC** (CONF:2233-18236).
9. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:2233-18126) such that it
 - a. **SHALL** contain exactly one [1..1] **@typeCode**="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:2233-18127).
 - b. **SHALL** contain exactly one [1..1] **@inversionInd**="true" (CONF:2233-18128).
 - c. **SHALL** contain exactly one [1..1] [Aggregate Count - CMS](#) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24) (CONF:2233-711202).

Figure 37: Sex Supplemental Data Element - CMS (V2) Example

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Sex Supplemental Data Element (V2) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.6"
extension="2016-09-01"/>
  <!-- Sex Supplemental Data Element - CMS (V3) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.21"
extension="2016-11-01"/>
  <code code="76689-9"
    displayName="Sex assigned at birth"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    code="F"
    codeSystem="2.16.840.1.113883.5.1"
    codeSystemName="AdministrativeGender"/>
  <entryRelationship typeCode="SUBJ" inversionInd="true">
    <!-- Aggregate Count - CMS -->
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </entryRelationship>
</observation>
```

5.4 Templates Updates for MIPS Only (updated July 2018)

The 2018 performance period MIPS reporting has been updated to allow virtual group reporting.

In addition, the 2018 performance period MIPS reporting has also made the following changes to the performance period requirements for the Quality and Improvement Activities performance categories.

- Requires performance period reporting, as defined by CMS, at the level of individual measure for Quality and at the level of individual activity for Improvement Activities.
- For the 2018 reporting, it is still allowed to specify performance period at the performance category level for Quality and Improvement Activities. However, for either Quality or Improvement Activities, submitters can only choose to submit performance period either at the performance category level or at the individual measure/activity level, but not both at the same time. Note that, within the same QRDA-III file, it is valid if performance period for Quality is at the performance category level, and performance period for Improvement Activities is at the individual activity level, and vice versa.

To minimize changes to QRDA-III files created based on the previous version of this implementation guide, instead of creating new versions of the existing templates, example xml snippets are provided in the sections below to provide guidance for constructing QRDA-III files that support the performance period changes and virtual group reporting for MIPS.

5.4.1 MIPS Virtual Group

Under MIPS, a virtual group is defined as a combination of two or more TINs assigned to one or more solo practitioners or to one or more groups consisting of 10 or fewer clinicians (including at least one MIPS eligible clinician), or both, that elect to form a virtual group for a performance period for a year.

The CMS program name code for virtual group reporting is MIPS_VIRTUALGROUP. The informationRecipient in a QRDA-III file must be set following the example shown in Figure 38.

Figure 38: MIPS Virtual Group - informationRecipient

```
<informationRecipient>
  <intendedRecipient>
    <id root="2.16.840.1.113883.3.249.7"
      extension="MIPS_VIRTUALGROUP"/>
  </intendedRecipient>
</informationRecipient>
```

MIPS virtual group reporting must also provide the virtual group's Virtual Group Identifier under the documentationOf element in a QRDA-III file. The root OID for MIPS virtual group identifier is "2.16.840.1.113883.3.249.5.2". The value of the @extension attribute is the Virtual Group Identifier of the submitting virtual group. NPI is not allowed when reporting as virtual group. Figure 39 provides an example of how to submit Virtual Group Identifier under the documentationOf element.

Figure 39: MIPS Virtual Group - documentationOf

```

<documentationOf>
  <serviceEvent classCode="PCPR">
    <!-- Only Virtual Group Identifier. No NPI is allowed -->
    <performer typeCode="PRF">
      <assignedEntity>
        <!--NPI is not allowed -->
        <id root="2.16.840.1.113883.4.6" nullFlavor="NA"/>
        <representedOrganization>
          <!-- MIPS virtual group identifier -->
          <id root="2.16.840.1.113883.3.249.5.2" extension="x12345"/>
          <name>Good Health Virtual Group</name>
        </representedOrganization>
      </assignedEntity>
    </performer>
  </serviceEvent>
</documentationOf>

```

5.4.2 Improvement Activity - Performance Period

Performance period reporting, as defined by CMS, is to be specified at the level of individual improvement activity for Improvement Activities. For the 2018 reporting, specifying performance period at the performance category level for Improvement Activities is still allowed. However, specifying performance period at both the individual activity level and the Improvement Activities performance category level is not permitted.

When submitting performance period at the individual activity level, a QRDA-III file shall be updated by adding Reporting Parameter Act template as a component to the Improvement Activity Performed Reference and Results template as shown in the example xml below. Since specifying performance period at both the individual activity level and the Improvement Activities performance category level is not permitted. Therefore, in this example, Reporting Parameter Act template contained directly under the Improvement Activity Section template is not allowed at the same time.

Figure 40: Performance Period at the Individual Improvement Activity Level

```

<entry>
  <organizer classCode="CLUSTER" moodCode="EVN">
    <!-- Implied template Measure Reference templateId -->
    <templateId root="2.16.840.1.113883.10.20.24.3.98"/>
    <!-- Improvement Activity Performed Reference and Results
templateId -->
    <templateId root="2.16.840.1.113883.10.20.27.3.33"
      extension="2016-09-01"/>
    <id root="ac575aef-7062-4ea2-b723-df517cfa470a"/>
    <statusCode code="completed"/>
    <reference typeCode="REFR">
      <!-- Reference to a particular improvement activity's unique
identifier. -->
      <externalDocument classCode="DOC" moodCode="EVN">
        <!-- extension is the unique identifier for an improvement
activity.-->
        <id root="2.16.840.1.113883.3.7034" extension="IA_EPA_3"/>
        <!-- Improvement activity narrative text (for reference) -->
        <text>Collection and use of patient experience and
satisfaction data on access</text>
      </externalDocument>
    </reference>
  </component>

```

```

    <observation classCode="OBS" moodCode="EVN">
      <!-- Measure Performed templateId -->
      <templateId root="2.16.840.1.113883.10.20.27.3.27"
        extension="2016-09-01"/>
      <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
        codeSystemName="ActCode" displayName="Assertion"/>
      <statusCode code="completed"/>
      <value xsi:type="CD" code="Y" displayName="Yes"
        codeSystemName="Yes/no indicator (HL7 Table 0136)"
        codeSystem="2.16.840.1.113883.12.136"/>
    </observation>
  </component>

  <!-- Performanc period be specified at individual activity level -->
  <component>
    <act classCode="ACT" moodCode="EVN">
      <!-- Reporting Parameters Act template ID -->
      <templateId root="2.16.840.1.113883.10.20.17.3.8"/>
      <id root="55a43e20-6463-46eb-81c3-9a3a1ad41225"/>
      <code code="252116004"
        codeSystem="2.16.840.1.113883.6.96"
        displayName="Observation Parameters" />
      <effectiveTime>
        <!-- The low value is the start date of the performance period -->
        <low value="20180101"/>
        <!-- The high value is the end date of the performance period -->
        <high value="20181231"/>
      </effectiveTime>
    </act>
  </component>
</organizer>
</entry>

```

5.4.3 Quality - Performance Period

Performance period reporting, as defined by CMS, is to be specified at the level of individual measure for Quality. For the 2018 reporting, specifying performance period at the performance category level for Quality is still allowed. However, specifying performance period at both the individual measure level and the Quality performance category level is not permitted.

When submitting performance period at the individual measure level, a QRDA-III file shall be updated by adding Reporting Parameter Act template as a component to the Measure Reference and Results- CMS (V2) template as shown in the example XML in Figure 41 below. Specifying performance period at both the individual measure level and the Quality performance category level is not permitted. Therefore, in this example, Reporting Parameter Act template contained directly under the QRDA Category III Measure Section – CMS (V2) template is not allowed at the same time.

Figure 41: Performance Period at the Individual Measure Level

```

<entry>
  <organizer classCode="CLUSTER" moodCode="EVN">
    <!-- Measure Reference -->
    <templateId root="2.16.840.1.113883.10.20.24.3.98"/>
    <!-- Measure Reference and Results V3 -->
    <templateId root="2.16.840.1.113883.10.20.27.3.1"
      extension="2016-09-01"/>
    <!-- Measure Reference and Results - CMS V2 -->
    <templateId root="2.16.840.1.113883.10.20.27.3.17"
      extension="2016-11-01"/>
  </organizer>
</entry>

```

```

<id root="95944FB9-241B-11E5-1027-09173F13E4C5"/>
<statusCode code="completed"/>
<!--Measure Reference and Results-->
<reference typeCode="REFR">
  <externalDocument classCode="DOC" moodCode="EVN">
    <id root="2.16.840.1.113883.4.738"
      extension="40280382-5abd-fa46-015b-499a7b553852"/>
    <code code="57024-2" codeSystem="2.16.840.1.113883.6.1"
      codeSystemName="LOINC"
      displayName="Health Quality Measure Document"/>
    <text>ADHD: Follow-Up Care for Children Prescribed
Attention-Deficit/Hyperactivity Disorder (ADHD) Medication</text>
  </externalDocument>
</reference>

<!-- performance period at the individual eCQM level -->
<component>
  <act classCode="ACT" moodCode="EVN">
    <!-- Reporting Parameters Act template ID -->
    <templateId root="2.16.840.1.113883.10.20.17.3.8"/>
    <id root="55a43e20-6463-46eb-81c3-9a3a1ad41225"/>
    <code code="252116004"
      codeSystem="2.16.840.1.113883.6.96"
      displayName="Observation Parameters" />
    <effectiveTime>
<!-- The low value is the start date of the performance period -->
      <low value="20180101"/>
<!-- The high value is the end date of the performance period -->
      <high value="20181231"/>
    </effectiveTime>
  </act>
</component>

<!-- IPOP Population 1 -->
<component>
  <observation classCode="OBS" moodCode="EVN">
    <!-- Measure Data -->
    <templateId root="2.16.840.1.113883.10.20.27.3.5"
      extension="2016-09-01"/>
    <!-- Measure Data - CMS V2 -->
    <templateId root="2.16.840.1.113883.10.20.27.3.16"
      extension="2016-11-01"/>
    ...
  </component>
  ...
</entry>

```

6 2018 Performance Period eCQM Specifications for Eligible Professionals and Eligible Clinicians UUID List

The following tables list the Version Specific Measure Identifier for each eCQM included in the [2018 Performance Period eCQM Specifications for Eligible Professionals and Eligible Clinicians](#), and the population identifiers for all population criteria within each eCQM. If an eCQM specifies Reporting Stratification, identifiers of reporting strata are also listed for that eCQM. **All UUIDs are case insensitive.**

Populations in Table 47 are labeled using the population codes listed below:

- Initial Population: IPOP
- Denominator: DENOM
- Denominator Exclusion: DENEX
- Numerator: NUMER
- Denominator Exception: DENEXCEP
- Stratum: STRAT

(Note: all eCQM specifications contained in the 2018 Performance Period eCQM Specifications for Eligible Professionals and Eligible Clinicians are proportion measures.)

Table 47: UUID List for 2018 Performance Period eCQM Specifications Eligible Professionals and Eligible Clinicians

NQF/ Quality #	eCQM CMS #	Version Specific Measure ID	Population ID	
0418/ 134	CMS2 v7	40280382-5b4d-eebc-015b-5844953b00a3	<u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u> <u>DENEXCEP:</u>	4DAED7C7-EAC9-43D2-B3FF-316DB539800C A8FA495E-A133-44FB-9D1E-C85EE38AE9E6 94936F2D-C352-44CC-83A5-EE6F05813829 BC60B220-5594-4D4A-A6F0-60C3E345F38E DF74D69A-F61F-4321-AA48-85CB4371042F
N/A/ 317	CMS22 v6	40280382-5971-4eed-015a-4e17610e4ba1	<u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u> <u>DENEXCEP:</u>	D9EF7AF1-7F40-4702-A440-7DD0EDDB70CF 97E280EF-3B0E-49AA-ABD8-59543C8668A7 DF3FEB73-A1A1-4897-80A2-1878BFB8E7F2 6A2D7BD9-1A80-4349-A608-E2AA6D4C19B1 97834019-4151-43A0-B437-770CEFC9D3A2
N/A/ 374	CMS50 v6	40280382-5971-4eed-015a-5c465a344ded	<u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u>	3F74FDF3-7881-4874-B7F9-89E74B320C9E 218F6923-4DF2-4640-B6EA-08FBA487B099 B682F9C1-F175-4521-9C22-BF848156DD0A

NQF/ Quality #	eCQM CMS #	Version Specific Measure ID	Population ID	
0405/ 160	CMS52 v6	40280382-5abd-fa46-015b- 49b9e72038f0	<u>IPOP 1:</u> <u>DENOM 1:</u> <u>DENEX 1:</u> <u>NUMER 1:</u> <u>DENEXCEP 1:</u> <u>IPOP 2:</u> <u>DENOM 2:</u> <u>DENEX 2:</u> <u>NUMER 2:</u> <u>DENEXCEP 2:</u> <u>IPOP 3:</u> <u>DENOM 3:</u> <u>DENEX 3:</u> <u>NUMER 3:</u>	9961385E-AD3C-48F1-98EC-C41C194EAEEB 880FA69B-496A-4598-A49C-DA5AE7ADAADC F3CE1536-5D37-403E-A5EC-E80BBA76C512 2C3BF41C-8561-48E5-81E0-39DF94F069A6 61A8AF15-0DE6-4A77-9FC9-03646E859967 44E0BA78-7073-4F7F-91ED-3C2E3AE51D04 7BB627B0-41E0-453B-9CC5-4C2651F9B1F3 C7C308FA-072F-409D-BB0E-2E24F2B706C4 8643FDEB-EE41-4C41-B3EB-8AEDAC7553B9 D04998BF-D3F3-44EA-B5FB-112C6EA13A8B B6AD9019-53DD-4B46-AE53-1E0C345D93F1 5EA7C0A5-43AE-485B-9162-48A484FED139 1B589B45-9922-41E3-AD0C-F94C6D399FFC E9408863-096A-4C8B-9C2E-26B88F13E018
N/A/ 376	CMS56 v6	40280382-5abd-fa46-015b- 49498b373799	<u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u>	96A28848-59E1-4260-972C-8D7A778F1369 79CE2ACA-B55F-444F-9717-5A62AFDE4506 2B68371A-2D92-465E-8D28-826893056E9C A372B0DB-A50F-475A-99BC-25F1D92E8047
N/A/ 373	CMS65 v7	40280382-5abd-fa46-015b- 44ab0b8a3591	<u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u>	08266507-3245-44DC-B0F4-FAC725577050 302E8035-90AB-4811-813B-CA19E90DBB73 0C718EB6-B06C-434F-A4E3-813C7560D23A BF4DFC81-C43C-4B94-88DA-A5AC5F92E0B2
N/A/ 375	CMS66 v6	40280382-5abd-fa46-015b- 5e9d6d0c0294	<u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u>	8C809576-E8BD-49F5-9135-ACDDE4D33EC9 02F99A06-E0DB-4CB5-A682-41E071EE6018 FF02E58F-CD23-40BD-BD15-B6C29FA4840E CB2669D7-DD4C-4EAF-AD97-E4034EC69FD9
0419/ 130	CMS68 v7	40280382-5abd-fa46-015b- 1afe205e2890	<u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> <u>DENEXCEP:</u>	90D784F1-D627-4ECB-8E51-96B915801B6E 2EE93A8D-BBC0-4D5F-B9AB-8471AB1C0206 16258F72-CA04-4FB6-AF26-DBB372D4E265 A4683F21-3E47-4E66-94E4-571A74B86894
0421/ 128	CMS69 v6	40280382-5abd-fa46-015b- 1abd1d0427de	<u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u> <u>DENEXCEP:</u>	732688B2-D597-4AD3-B21B-951530621182 0089D649-985E-44D9-9B01-A0745DC61F03 03D59443-FB64-4216-8DC5-67B950A02070 4E23A4B8-0313-4F48-910D-EF406560CC20 93A7A4A1-E6F7-42EF-9DEC-875EA2373E18
N/A/ 379	CMS74 v7	40280382-5abd-fa46-015b- 48fd374e3757	<u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u> <u>STRAT 1:</u> <u>STRAT 2:</u> <u>STRAT 3:</u>	A8F19A0F-7823-4446-97FC-F63F0336C30B 2A3A682E-9300-4F65-B557-F43F0CAEABE2 CE323D6E-F6DE-4547-BBE8-2D4BC54CE223 1128FA1D-D3CC-4219-AAE9-5656AC629EE1 3214695D-2EAF-43EC-8B40-EF7F8450ED7F 8CCDE1CC-846B-46A4-B649-498A348FF78E D411C97B-9E25-40AF-B386-BD1062428D06
N/A/ 378	CMS75 v6	40280382-5abd-fa46-015b- 44cef87e35c3	<u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u>	528EB246-D329-4123-BF93-1C4C5797AA83 DD411FE5-324C-4715-A898-2126EA30740C CF1EE2F3-5133-4AB9-982A-99FFF69BF1E0 826C8438-3D6B-494C-89AA-35F3FBE0F73A
N/A/ 372	CMS82 v5	40280382-5abd-fa46-015b- 49b2128438cb	<u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u>	88D3358E-49E3-40A0-8872-CABEBCFE8815 E3912B01-76E9-4D2E-804C-DF86665716C1 E37DACD1-5536-402D-B1CA-A81C2B3295AA
N/A/ 377	CMS90 v7	40280382-5abd-fa46-015b- 4434ffa43547	<u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u>	B4510F26-AA43-4CA6-BEE6-71B33D1A70E6 51B0D520-BADF-4238-BE65-2C02B69141EB 6C64B69F-C8EF-4E16-88FB-B03502937883 45784D8D-B471-401B-A5CE-13F429F20C57

NQF/ Quality #	eCQM CMS #	Version Specific Measure ID	Population ID	
0038/ 240	CMS117 v6	40280382-5abd-fa46-015b-497dd1e937da	<u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u>	57FF1726-F435-4AE7-978D-6A704649B7F8 942F69E0-9D10-4A11-912B-634720AC529C 903591FD-25A7-4F55-A1B5-C17634698354 2974FF0D-E454-41F9-B2B3-5622414ACBE3
0059/ 001	CMS122 v6	40280382-5abd-fa46-015b-4981e40b37e6	<u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u>	B7D491B3-358C-41A3-94F8-B986E65D99B6 D6366A39-0B09-478B-B65A-1044CB22F68F 2E60E186-DB12-4810-A6B6-BAEBFF71A78E B2497764-9F9D-402B-8852-1FB3BAA30B2C
0056/ 163	CMS123 v6	40280382-5abd-fa46-015b-49851c1237f2	<u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u>	2FEADCB4-6B5B-4568-A4F6-D46AE7362D5A C33501A9-F9A1-4DF5-B71D-4B16F6ECA73B 1CBE992C-D1D0-4086-BD3E-70FE2C1BF0A9 9A243C9D-54BC-4846-9781-C4BC3328E3B3
0032/ 309	CMS124 v6	40280382-5abd-fa46-015b-4989b55937fe	<u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u>	DA8343BF-CC74-432C-8791-25A24371E272 07FEF163-AD9D-49DF-8888-D61059B5A336 6BB7C510-DA0F-4EA6-A1FB-4609DA8C1229 5FB7CF82-66B2-4193-A149-BBC147C3C806
2372/ 112	CMS125 v6	40280382-5b4d-eebc-015b-5ea9efcc02ac	<u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u>	C4BF72E5-8BF7-46A7-BD7B-6350F901FF54 2A320D3E-1A77-4944-AE56-B812673AAF8A 2D3173C1-39F8-433C-B78E-CF72172CEA7A 475ABF74-7880-45F6-AE2A-FC6333EACCD A
N/A / 111	CMS127 v6	40280382-5abd-fa46-015b-498df1243816	<u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u>	023E42E9-AEA8-4135-A64A-5EA1C46D4510 8CE9F814-6315-421C-9D92-0108CE506B3D 8C9FD60A-EA5F-4925-B525-9F1AB8A2FCDA D60E94B6-8CD2-44ED-AC6C-EF418C4B4F72
0105/ 009	CMS128 v6	40280382-5abd-fa46-015b-49909a0e3822	<u>IPOP 1:</u> <u>DENOM 1:</u> <u>DENEX 1:</u> <u>NUMER 1:</u> <u>IPOP 2:</u> <u>DENOM 2:</u> <u>DENEX 2:</u> <u>NUMER 2:</u>	C3C46850-F581-4F89-9F2D-4F93D73402CA 6FFF86C1-040A-4B84-A113-63362E0C1891 126B533C-1705-49A6-9B00-BBD7391EB80C C26BB0E0-244A-4B66-A6E0-7731CF7665E7 3C3C9859-7E43-4A0C-8C7F-BDFD8963AB23 3FCF7F76-1243-462E-9AA9-1031D200920D 74A3758B-7BCF-4B63-809E-5087820731B1 14C13E0B-C875-4664-ABE4-4AEFDE178F1E
0389/ 102	CMS129 v7	40280382-5971-4eed-015a-04bc49ed2d96	<u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> <u>DENEXCEP:</u>	B7790E48-467E-49DB-988F-9063C8259C36 6A944202-57CA-42BC-A47C-9B65FDCBCB80 297B31F3-E139-496C-9A8C-20E176EBC27D 2DA94C2C-437D-4D98-A485-A062ECCAA199
0034/ 113	CMS130 v6	40280382-5abd-fa46-015b-4993577e382e	<u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u>	FA04C05D-FABF-4ED8-BC56-5E1C9E7F4170 65F9718A-2BE8-4FE7-801C-2FEB861C55D2 DC79FC52-DE56-4B39-A9A4-BC82F32564BE 4CB09E04-EB4E-4902-9775-F4F36EFF57C2
0055/ 117	CMS131 v6	40280382-5abd-fa46-015b-49956e7c383a	<u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u>	A14D91B3-CD7F-432D-8148-B9563BAA960D FCA38355-BD5D-445A-895C-5B6E09C41B77 53F076FE-F9B6-45C0-963E-BF5E38716C11 C7D4A675-E578-45F2-B637-5C1FC90FCCFA
0564/ 192	CMS132 v6	40280382-5a66-eab9-015a-866c5add0c0b	<u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u>	8A44DF19-F6AA-4FCA-AD98-53DF73C00902 AC68F187-68E3-499C-B6C4-0F65E4829ECB C1205D08-24DB-412E-87A9-16B75CCD3ED0 5E1A5995-EE9D-4413-B757-725D579B5B26
0565/ 191	CMS133 v6	40280382-5971-4eed-015a-4e28d6184bc4	<u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u>	787FCA10-623D-4FD1-9766-8930A94E8290 BC06BE53-65A1-4FEC-A35B-655B33A786BD 785D8CD4-5ECC-43C6-9071-D33D35502CA0 3C27E444-88D1-4F58-9286-65008D21644E

NQF/ Quality #	eCQM CMS #	Version Specific Measure ID	Population ID	
0062/ 119	CMS134 v6	40280382-5abd-fa46-015b-49973dc03846	<u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u>	5F282645-41F1-4C69-BA5C-D59AA8C41FA2 93A039DE-AE5D-4A61-A500-3D400AA8B273 BFAD5371-9B11-4520-9220-6A253A668FF8 0D0139E2-FBDE-4A71-9340-3FB2FF9702F2
0081/ 005	CMS135 v6	40280382-5971-4eed-015a-05848ec12ebb	<u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> <u>DENEXCEP:</u>	98DF60A2-1382-4E09-A186-8328E7D7265A 1629A28C-BD6E-4DDA-B46C-C541D04BF740 1994B300-F0AE-40B2-A397-A375B5EE60B4 F7544DFE-1919-47E6-B698-FCC3116167E0
0108/ 366	CMS136 v7	40280382-5abd-fa46-015b-499a7b553852	<u>IPOP 1:</u> <u>DENOM 1:</u> <u>DENEX 1:</u> <u>NUMER 1:</u> <u>IPOP 2:</u> <u>DENOM 2:</u> <u>DENEX 2:</u> <u>NUMER 2:</u>	FED976AC-8C91-473B-8E93-61809F442F23 7872B69D-A1EB-42B3-8ED8-3BF847CC1B0C 0A5E78D7-074C-46C6-9529-56E06681EABA 40ADC4A8-3EF2-4672-B287-A5C70C125709 CFB7C953-715D-46BF-9F0D-FE8A25B2A247 787F0CCC-18DA-4F36-B8DA-F24FB75B0E1C 37CC8B9D-0299-4221-8AD6-5B4EC842959B B8E236A4-1AE9-44F9-8664-28A6BED54CF8
0004/ 305	CMS137 v6	40280382-5abd-fa46-015b-499c87c0385e	<u>IPOP 1:</u> <u>DENOM 1:</u> <u>DENEX 1:</u> <u>NUMER 1:</u> <u>STRAT 1-1:</u> <u>STRAT 1-2:</u> <u>IPOP 2:</u> <u>DENOM 2:</u> <u>DENEX 2:</u> <u>NUMER 2:</u> <u>STRAT 2-1:</u> <u>STRAT 2-2:</u>	E6569B35-D2C5-464B-A608-BDB2F082FE57 3F6350CA-654C-4B00-8B62-EC810D1CA790 9242AAE1-D2C4-44A4-AF6B-7DF4C5C9BE31 6F8814A6-A26A-4FCB-8A41-902971713FCB F2765AD3-E5E4-40BE-ADCF-E1CCA92B0D42 C17E38FE-4BC4-46A6-B35D-6F172C4D5F41 68E401E4-8CB6-4A5D-A83D-58F8E902E012 417055BD-AECD-49D5-8FA7-764FF1544611 F1AA2B4F-003E-4770-9394-8D465715CC4D 431A7185-548C-4F05-B0D3-90108E4AAD57 2D73F57C-3C9A-49CF-B0C0-D0C512C8A10B C18A8AFF-E1DC-49E8-B84D-74DDD399A4E2
0028/ 226	CMS138 v6	40280382-5abd-fa46-015b-1b7c6bb929d0	<u>IPOP 1:</u> <u>DENOM 1:</u> <u>NUMER 1:</u> <u>DENEXCEP 1:</u> <u>IPOP 2:</u> <u>DENOM 2:</u> <u>NUMER 2:</u> <u>DENEXCEP 2:</u> <u>IPOP 3:</u> <u>DENOM 3:</u> <u>NUMER 3:</u> <u>DENEXCEP 3:</u>	95BF2369-1AA2-4A8B-9AF8-B1BD08A4DCA6 3B551ED0-E6BE-4D1B-B657-7C5CBF0F9E5E 03EB885E-F7CF-491D-B589-76C35404A6E8 824B8FC1-D790-4CAF-8A68-F0607D24D14B 7C4B36B2-BC2F-42E2-AE60-2A3E461A441E AD464F50-958E-4557-8DCE-555614AE6688 70DBF8C1-7DD3-4413-A501-021212C44181 6ACFDD9F-4D31-45F8-9516-6D4BCB5BEF20 C1A04121-5A7B-4279-A87C-396A80308933 D851152D-D00B-4A21-9E6A-A29E2E772E97 COCCE0E5-CD1A-4F94-8A75-F750EA4D4251 FE9E6C69-EB6B-4423-96FD-4C718E983522
0101/ 318	CMS139 v6	40280382-5abd-fa46-015b-49b36bf238d7	<u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u>	5D0D869E-9A8B-4707-9C97-03C17F156DD6 DEEEB2CC-75E7-487B-895C-1102042B7C97 D97B59F6-89D4-4635-8F38-4C8369D1776E 714CCB1D-9F3F-403E-B636-2F2A38258D31
0089/ 019	CMS142 v6	40280382-5971-4eed-015a-04d538502dae	<u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> <u>DENEXCEP:</u>	71DEDD9A-65CD-436B-BD07-1FF38CC3EC42 F6E6941D-EC07-4F87-9AD7-E9A4DE1C9D83 61861F0F-2A1B-43F6-974A-507FA24163DB 18692AEE-C96C-454C-80C5-25A498611387
0086/ 012	CMS143 v6	40280382-5971-4eed-015a-04e1eae72dc3	<u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> <u>DENEXCEP:</u>	9C63D9DF-F1E0-49A8-94F5-DE8A237C6E52 C9F4C6C2-D567-4118-BDD6-52B8422729F4 57FD3EA0-553F-439E-AD81-AA3B5CF523D4 B4E0ABDD-DF7A-48DC-86E1-5EACB0461207

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0083/ 008	CMS144 v6	40280382-5971-4eed-015a- 05b564b82eda	<u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> <u>DENEXCEP:</u>	1E7F92C1-58C7-494D-A370-8003D0CE2EFD 45F25D09-BA59-45F6-AFDB-1480DDABF7FB 990F0F54-21E6-4A02-B19D-3F54A48B858F FA93E3F5-C457-427F-B80E-0F8F4F27D5FD
0070/ 007	CMS145 v6	40280382-5971-4eed-015a- 4df98a314b40	<u>IPOP 1:</u> <u>DENOM 1:</u> <u>NUMER 1:</u> <u>DENEXCEP 1:</u> <u>IPOP 2:</u> <u>DENOM 2:</u> <u>NUMER 2:</u> <u>DENEXCEP 2:</u>	AF9E3B00-9A22-46BB-9354-EC4AC32D2EA4 8B0F028C-2196-4984-A034-B969BD75D013 F883CF79-13E1-40BD-BBB4-5E26AFAF2E24 88EF4FC4-B428-4FFA-8C42-552AC66765BB B9E2115F-5BA9-4884-9EBE-3E07254C7DFE DB77B19D-6CAF-43B6-B3CF-2E34000B1970 0F2F49CB-BA85-4F5B-B4EE-F8A725174120 7C4A3988-5F29-46BF-9C51-41EF60611C39
N/A/ 066	CMS146 v6	40280382-5abd-fa46-015b- 499f4310386a	<u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u>	0D306F3A-DCD9-4F64-94CA-8B6F7DD4B3E7 0746E342-2E26-486C-A515-63D3F9173DAF E33F3B54-0491-4DCD-9693-A9E59E828A30 F06A9DF9-9758-4081-ABC8-F4A3FB9EE3A1
0041/ 110	CMS147 v7	40280382-5b4d-eebc-015b- 5d99505001ea	<u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> <u>DENEXCEP:</u>	6011EBDD-A997-41C6-A58C-A8CD568AAE63 60FF8D6C-0D6D-4BEA-9FFF-B6FF06CFC017 FB31BD28-2229-410D-ADCB-4D191F79C465 6435891F-92AB-4AD4-A175-6F4C98E1BD17
2872/ 281	CMS149 v6	40280382-5971-4eed-015a- 4e002d4b4b66	<u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> <u>DENEXCEP:</u>	E86E2FC5-8F1F-44ED-B30D-FA66D200B1C7 E7337FE2-42EF-467C-9981-BF1D1F489357 9B6325F1-07B8-4B1C-AF92-4F4F1269C234 EE1F4525-BB1F-4299-A802-E74A297D58A7
0033/ 310	CMS153 v6	40280382-5abd-fa46-015b- 49a10e7c3878	<u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u> <u>STRAT 1:</u> <u>STRAT 2:</u>	7D3EDBFF-A7B9-453B-9EB4-279FC4AF6493 77442762-E66F-4E65-96B8-BA8CD34DCC34 08DF11C3-6C40-4B31-AACC-B4B1458AA832 B4D784DA-F274-464D-B10D-B12B468AE5EC DC0F4E18-DAEA-4DD7-8D43-44598B364B1C 20F1049C-E3FC-4A59-AD24-AB1F36B84198
0069/ 065	CMS154 v6	40280382-5abd-fa46-015b- 49a3e3193888	<u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u>	4C2A54B6-7869-4DD7-884E-2DD0C105BC94 4B2634A3-CCDC-4A77-8CCD-152478AAB3A4 A028CDC4-DC9A-412D-BB96-DOAD5BC02FE0 CDB02C44-39CD-412B-A3A0-6C321921F800
0024/ 239	CMS155 v6	40280382-5abd-fa46-015b- 49a568c83894	<u>IPOP 1:</u> <u>DENOM 1:</u> <u>DENEX 1:</u> <u>NUMER 1:</u> <u>STRAT 1-1:</u> <u>STRAT 1-2:</u> <u>IPOP 2:</u> <u>DENOM 2:</u> <u>DENEX 2:</u> <u>NUMER 2:</u> <u>STRAT 2-1:</u> <u>STRAT 2-2:</u> <u>IPOP 3:</u> <u>DENOM 3:</u> <u>DENEX 3:</u> <u>NUMER 3:</u> <u>STRAT 3-1:</u> <u>STRAT 3-2:</u>	036F2DF1-FEC1-4F32-BA14-7D9187D46218 4731E9F1-E895-4238-B63D-CB1252E3BADE D1DE917A-41C8-48C9-B8FA-56422DA204DD 5307F884-29AC-47B8-AF08-E928B1DF7BBF 4DCD5517-2884-43AC-8E6F-2D3D60B568A7 963178F4-E8B4-4DE9-97A1-D174223277DA 869D125B-E916-4EEA-A962-94AFC4BE6C3C EC3E7159-9941-4AB8-9452-C7261977E8DA A5AE9992-E943-4583-A1CE-3437BB8293B2 88E91D47-9EF9-4B6F-B22B-AAEA81FCD265 37549AFE-5FBA-4C52-80B4-06E51B8F71C2 0DE4ECAB-1628-46DC-94B9-3A48A7389BBB 06FDE385-172D-411B-807C-CCCC17FF8B8F 66A4A6FE-FBCB-414C-98A6-C5570E7A26A7 C7D28A7F-EE82-43F4-A094-31E1488278D9 01BBCAE4-16E8-4F82-9106-282C7AF4C370 8DB6C8B4-6613-4D50-BA69-8A771F07D6CA 89421757-79CD-4E7B-8228-A6F8ADA807DD

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0022/ 238	CMS156 v6	40280382-5abd-fa46-015b-49b5b1e638e3	<u>IPOP 1:</u> <u>DENOM 1:</u> <u>DENEX 1:</u> <u>NUMER 1:</u>	82984537-92A9-4546-BDBD-5FF8ED1A0F53 1786D67F-A917-4948-994A-7238EBFB513E A798F397-E73F-48FF-A214-01130FE31B1A C23BC68E-9FB9-4799-9B10-A7DC31339A03
			<u>IPOP 2:</u> <u>DENOM 2:</u> <u>DENEX 2:</u> <u>NUMER 2:</u>	0B6CB87A-9FC7-4909-85F6-83505F827BCE E26E912E-C43F-4412-9495-209C6F83616F E349E935-6A6C-40E3-A422-FD1759F9AAF3 8B77586E-A421-42C4-A8E2-741FDBC6F0B6
0384/ 143	CMS157 v6	40280382-5971-4eed-015a-4e0dbd5d4b8a	<u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u>	B7A16429-208D-4479-B12B-024D84BEE839 2CF12B3B-BB87-4E6A-8157-27624AD95153 3A9C513B-AF6B-4E51-A60B-1CCF0932083F
N/A/ 369	CMS158 v6	40280382-5971-4eed-015a-05e11c482faf	<u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> <u>DENEXCEP:</u>	E11AF7FD-A05B-453A-84C3-9D048BFD8911 854F621E-DAAE-4631-B6B6-C6A7859A9008 957945A8-CC61-4D05-BEB2-7C2D38838562 D8ABBC9F-142E-410F-8D93-BDFCC072519
0710/ 370	CMS159 v6	40280382-5b4d-eebc-015b-5e984c6a027e	<u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u>	2CEFA814-C866-4750-B664-131ACA1DF554 904292C3-B7FE-4CB6-808D-F718C50B7B78 318B44C0-E350-4657-87CC-467DC1D371A8 6D7953F6-DBDA-420C-A866-39A2A0E8EFF4
0712/ 371	CMS160 v6	40280382-5b4d-eebc-015b-5e87add90267	<u>IPOP 1:</u> <u>DENOM 1:</u> <u>DENEX 1:</u> <u>NUMER 1:</u>	725F4792-0A9A-49CB-8063-9BA1A57270EC AFCACA89-68B1-4415-8D48-341237EDEC02 D71F6E54-6FC7-482A-AFFB-C09C66506EB7 6E41C227-F801-45AC-8271-0E9325CE1481
			<u>IPOP 2:</u> <u>DENOM 2:</u> <u>DENEX 2:</u> <u>NUMER 2:</u>	A221C073-3EE6-46DE-AD68-98FB62B4590D CCF8EF1D-ACEB-4160-BECE-EBC6DE6AC295 0271A3BE-3CF8-4E43-8C52-F14CF020E856 7B13A87F-621F-4682-BE2C-B0900AEF6AE5
			<u>IPOP 3:</u> <u>DENOM 3:</u> <u>DENEX 3:</u> <u>NUMER 3:</u>	293D5F5C-912E-40AC-9C0D-4840E5F6E2B8 E31974D3-5AB2-42F5-ACE3-77415D503785 366C029C-D36B-4585-88D8-824C10AEED5E 3948D321-8D57-4F5B-B3E1-3140D4E6CBBB
0104/ 107	CMS161 v6	40280382-5a66-eab9-015a-703cc4fe0234	<u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u>	6BD465CA-6EBF-4BB6-9CDA-470D67CEA112 8B65FEB7-F62F-4D89-95C9-4D468F545B1A 046CF9E5-DC7D-4753-B864-A6B6686D24A2
0068/ 204	CMS164 v6	40280382-5abd-fa46-015b-49a7a51f38a0	<u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u>	0A17D1E0-AE25-4073-8D19-144F54C9774D B7789CEA-C4E5-49AD-8BD6-45194AC471E9 50701AD6-6554-4D7F-8F83-40441EAE4813 EBB5F1F3-7146-4101-B19C-1FED61ADF2F
0018/ 236	CMS165 v6	40280382-5abd-fa46-015b-49abb28d38b2	<u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u>	5C206C23-4CF9-4390-9E76-0F243FE59DCF 1D456B20-71F7-4477-BD23-D39600D5A095 9805BC7D-274C-4CCF-916A-B5BA34D62A31 709D84FA-637D-42CD-8934-43C3FBAD0979
0052/ 312	CMS166 v7	40280382-5abd-fa46-015b-49af257b38bf	<u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u>	14BFAB73-0CF0-4259-9AAA-33F1FB6D2EE1 2342E44F-2FFA-4C0F-B136-FD1A1826BB4E 43474C75-66E3-41BB-826D-C3A76E6CE6B4 FA47AE43-B69F-4840-A433-2BF27A1DACA9
0088/ 018	CMS167 v6	40280382-5971-4eed-015a-04eef5fe2dd3	<u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> <u>DENEXCEP:</u>	DD63C311-8349-4843-A7FC-14A7FBBC50A9 6FD337B1-7A8E-407B-A356-331BA1C55608 B18CD2A0-6AFC-40E7-8C70-27243C5BAA6F 88CDFB9B-0391-4910-A078-ABCD863EF922

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N/A/ 367	CMS169 v6	40280382-5971-4eed-015a- 05ec53bb2fc6	<u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u>	16DB7A4E-44E1-4D12-8C0E-6FAAF0D31658 761F55A1-69CD-433A-BB44-ADB78D7EEF95 6DA14A79-B592-4709-8712-1E25D60FFFFC
1365/ 382	CMS177 v6	40280382-5a66-eab9-015a- 704d816c0247	<u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u>	18350E79-D0CE-4D87-9D70-1D9C74538CA8 FC8CAC59-A713-4954-AFB0-34A1D786C0C1 B3FC82CC-C295-4EDB-9C90-3E6A164488E6
N/A/ 438	CMS347 v1	40280382-5b4d-eebc-015b- 8245e0fa06b7	<u>IPOP 1:</u> <u>DENOM 1:</u> <u>DENEX 1:</u> <u>NUMER 1:</u> <u>DENEXCEP 1:</u> <u>IPOP 2:</u> <u>DENOM 2:</u> <u>DENEX 2:</u> <u>NUMER 2:</u> <u>DENEXCEP 2:</u> <u>IPOP 3:</u> <u>DENOM 3:</u> <u>DENEX 3:</u> <u>NUMER 3:</u> <u>DENEXCEP 3:</u>	B5249FB8-86D2-4633-BCF8-705EAAA35F04 CC35FC48-FA75-4E8C-8949-BC2B4D152F72 6C1F017F-F0C4-4346-B823-0BC24E3BFA9C 53656F0F-97C7-4537-907E-4C8D836A5853 F13A488B-6F7F-45E3-8216-1A7A679ADBFD F1948A70-E9EE-427F-9D1F-9489B902DFAB C44EA250-22FE-4FF1-835B-BD718A9E71FA C5AA9EF4-FC68-4844-A45A-4985E81DA8A1 632ECBD0-8C77-40E9-AE21-795891D5CD64 B55F6B97-ABF6-4F44-90C5-D02D99DE55DA E44CE0A2-A08E-48CC-B022-5B54F808FB61 01B3E154-5F42-4905-BDDD-E2A34B8C1DB2 1354D37B-998F-434E-8039-99F6CCC987FD 5E64B1E4-1F1A-4B3B-B148-5044F6B30760 3D0BD8CB-CB77-407A-A367-080F53D880DD
N/A/ 462	CMS645 v1	40280382-5b4d-eebc-015b- 59cca7a90174	<u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> <u>DENEXCEP:</u>	8B68B261-639E-4C73-9A5F-0182F2C0FD77 E419429F-78EA-4AB6-8248-63AF70CF47CB E3131E80-7779-4EBB-AC75-9D85E6DE969F 4A4C3A75-9A8F-4463-AEFF-B02FB262AE73

7 Measure Identifiers

For all CMS eligible clinicians and eligible professionals programs reporting, certain identifiers are **mandatory**, meaning that they must be present in the QRDA-III report and no nulls are allowed. Exceptions and considerations are noted where applicable. Each Improvement Activity included in the QRDA-III report must reference its Activity ID. Each Promoting Interoperability Objective and Measure and 2018 Promoting Interoperability Transition Objective and Measure included in the QRDA-III report must reference its Measure Identifier.

Table 48: Improvement Activities Identifiers

Activity Name	Activity Description	Activity ID
Provide 24/7 Access to MIPS Eligible Clinicians or Groups Who Have Real-Time Access to Patient's Medical Record	- Provide 24/7 access to MIPS eligible clinicians, groups, or care teams for advice about urgent and emergent care (e.g., MIPS eligible clinician and care team access to medical record, cross-coverage with access to medical record, or protocol-driven nurse line with access to medical record) that could include one or more of the following: - Expanded hours in evenings and weekends with access to the patient medical record (e.g., coordinate with small practices to provide alternate hour office visits and urgent care); - Use of alternatives to increase access to care team by MIPS eligible clinicians and groups, such as e-visits, phone visits, group visits, home visits and alternate locations (e.g., senior centers and assisted living centers); and/or Provision of same-day or next-day access to a consistent MIPS eligible clinician, group or care team when needed for urgent care or transition management.	IA_EPA_1
Use of telehealth services that expand practice access	Use of telehealth services and analysis of data for quality improvement, such as participation in remote specialty care consults or teleaudiology pilots that assess ability to still deliver quality care to patients.	IA_EPA_2
Collection and use of patient experience and satisfaction data on access	Collection of patient experience and satisfaction data on access to care and development of an improvement plan, such as outlining steps for improving communications with patients to help understanding of urgent access needs.	IA_EPA_3
Additional improvements in access as a result of QIN/QIO TA	As a result of Quality Innovation Network-Quality Improvement Organization technical assistance, performance of additional activities that improve access to services (e.g., investment of on-site diabetes educator).	IA_EPA_4
Participation in User Testing of the Quality Payment Program Website (https://qpp.cms.gov/)	User participation in the Quality Payment Program website testing is an activity for eligible clinicians who have worked with CMS to provided substantive, timely, and responsive input to improve the CMS Quality Payment Program website through product user-testing that enhances system and program accessibility, readability and responsiveness as well as providing feedback for developing tools and guidance thereby allowing for a more user-friendly and accessible clinician and practice Quality Payment Program website experience.	IA_EPA_5
Participation in Systematic Anticoagulation Program	Participation in a systematic anticoagulation program (coagulation clinic, patient self-reporting program, or patient self-management program) for 60 percent of practice patients in the transition year and 75 percent of practice patients in Quality Payment Program Year 2 and future years, who receive anti-coagulation medications (warfarin or other coagulation	IA_PM_1

Activity Name	Activity Description	Activity ID
	cascade inhibitors).	
Anticoagulant Management Improvements	Individual MIPS eligible clinicians and groups who prescribe oral Vitamin K antagonist therapy (warfarin) must attest that, for 60 percent of practice patients in the transition year and 75 percent of practice patients in Quality Payment Program Year 2 and future years, their ambulatory care patients receiving warfarin are being managed by one or more of the following improvement activities: • Patients are being managed by an anticoagulant management service, that involves systematic and coordinated care, incorporating comprehensive patient education, systematic prothrombin time (PT-INR) testing, tracking, follow-up, and patient communication of results and dosing decisions; • Patients are being managed according to validated electronic decision support and clinical management tools that involve systematic and coordinated care, incorporating comprehensive patient education, systematic PT-INR testing, tracking, follow-up, and patient communication of results and dosing decisions; • For rural or remote patients, patients are managed using remote monitoring or telehealth options that involve systematic and coordinated care, incorporating comprehensive patient education, systematic PT-INR testing, tracking, follow-up, and patient communication of results and dosing decisions; and/or • For patients who demonstrate motivation, competency, and adherence, patients are managed using either a patient self-testing (PST) or patient-self-management (PSM) program.	IA_PM_2
RHC, IHS or FQHC quality improvement activities	Participating in a Rural Health Clinic (RHC), Indian Health Service Medium Management (IHS), or Federally Qualified Health Center in ongoing engagement activities that contribute to more formal quality reporting , and that include receiving quality data back for broader quality improvement and benchmarking improvement which will ultimately benefit patients. Participation in Indian Health Service, as an improvement activity, requires MIPS eligible clinicians and groups to deliver care to federally recognized American Indian and Alaska Native populations in the U.S. and in the course of that care implement continuous clinical practice improvement including reporting data on quality of services being provided and receiving feedback to make improvements over time.	IA_PM_3
Glycemic management services	For outpatient Medicare beneficiaries with diabetes and who are prescribed antidiabetic agents (e.g., insulin, sulfonylureas), MIPS eligible clinicians and groups must attest to having: For the first performance year, at least 60 percent of medical records with documentation of an individualized glycemic treatment goal that: a) Takes into account patient-specific factors, including, at least 1) age, 2) comorbidities, and 3) risk for hypoglycemia, and b) Is reassessed at least annually. The performance threshold will increase to 75 percent for the second performance year and onward. Clinician would attest that, 60 percent for first year, or 75 percent for the second year, of their medical records that document individualized glycemic treatment represent patients who are being treated for at least 90 days during the performance period.	IA_PM_4
Engagement of community for health status improvement	Take steps to improve health status of communities, such as collaborating with key partners and stakeholders to implement evidenced-based practices to improve a specific chronic condition. Refer to the local Quality Improvement Organization (QIO) for additional steps to take for improving health status of communities as there are many steps to select from for satisfying this activity. QIOs work under the direction of CMS to assist MIPS eligible clinicians and groups with quality improvement, and	IA_PM_5

Activity Name	Activity Description	Activity ID
	review quality concerns for the protection of beneficiaries and the Medicare Trust Fund.	
Use of toolsets or other resources to close healthcare disparities across communities	Take steps to improve healthcare disparities, such as Population Health Toolkit or other resources identified by CMS, the Learning and Action Network, Quality Innovation Network, or National Coordinating Center. Refer to the local Quality Improvement Organization (QIO) for additional steps to take for improving health status of communities as there are many steps to select from for satisfying this activity. QIOs work under the direction of CMS to assist eligible clinicians and groups with quality improvement, and review quality concerns for the protection of beneficiaries and the Medicare Trust Fund.	IA_PM_6
Use of QCDR for feedback reports that incorporate population health	Use of a QCDR to generate regular feedback reports that summarize local practice patterns and treatment outcomes, including for vulnerable populations.	IA_PM_7
Participation in population health research	Participation in research that identifies interventions, tools or processes that can improve a targeted patient population.	IA_PM_9
Use of QCDR data for quality improvement such as comparative analysis reports across patient populations	Participation in a QCDR, clinical data registries, or other registries run by other government agencies such as FDA, or private entities such as a hospital or medical or surgical society. Activity must include use of QCDR data for quality improvement (e.g., comparative analysis across specific patient populations for adverse outcomes after an outpatient surgical procedure and corrective steps to address adverse outcome).	IA_PM_10
Regular Review Practices in Place on Targeted Patient Population Needs	Implementation of regular reviews of targeted patient population needs, such as structured clinical case reviews, which includes access to reports that show unique characteristics of eligible clinician's patient population, identification of vulnerable patients, and how clinical treatment needs are being tailored, if necessary, to address unique needs and what resources in the community have been identified as additional resources.	IA_PM_11
Population empanelment	Empanel (assign responsibility for) the total population, linking each patient to a MIPS eligible clinician or group or care team. Empanelment is a series of processes that assign each active patient to a MIPS eligible clinician or group and/or care team, confirm assignment with patients and clinicians, and use the resultant patient panels as a foundation for individual patient and population health management. Empanelment identifies the patients and population for whom the MIPS eligible clinician or group and/or care team is responsible and is the foundation for the relationship continuity between patient and MIPS eligible clinician or group /care team that is at the heart of comprehensive primary care. Effective empanelment requires identification of the "active population" of the practice: those patients who identify and use your practice as a source for primary care. There are many ways to define "active patients" operationally, but generally, the definition of "active patients" includes patients who have sought care within the last 24 to 36 months, allowing inclusion of younger patients who have minimal acute or preventive health care.	IA_PM_12
Chronic Care and Preventative Care Management for Empaneled Patients	Proactively manage chronic and preventive care for empaneled patients that could include one or more of the following: • Provide patients annually with an opportunity for development and/or adjustment of an individualized plan of care as appropriate to age and health status, including health risk appraisal; gender, age and condition-specific preventive care services; and plan of care for chronic conditions; • Use condition-specific pathways for care of chronic conditions (e.g., hypertension, diabetes, depression, asthma and heart	IA_PM_13

Activity Name	Activity Description	Activity ID
	failure) with evidence-based protocols to guide treatment to target; such as a CDC-recognized diabetes prevention program; • Use pre-visit planning to optimize preventive care and team management of patients with chronic conditions; • Use panel support tools (registry functionality) to identify services due; • Use predictive analytical models to predict risk, onset and progression of chronic diseases; or • Use reminders and outreach (e.g., phone calls, emails, postcards, patient portals and community health workers where available) to alert and educate patients about services due; and/or routine medication reconciliation.	
Implementation of methodologies for improvements in longitudinal care management for high risk patients	Provide longitudinal care management to patients at high risk for adverse health outcome or harm that could include one or more of the following: Use a consistent method to assign and adjust global risk status for all empaneled patients to allow risk stratification into actionable risk cohorts. Monitor the risk-stratification method and refine as necessary to improve accuracy of risk status identification; Use a personalized plan of care for patients at high risk for adverse health outcome or harm, integrating patient goals, values and priorities; and/or Use on-site practice-based or shared care managers to proactively monitor and coordinate care for the highest risk cohort of patients.	IA_PM_14
Implementation of episodic care management practice improvements	Provide episodic care management, including management across transitions and referrals that could include one or more of the following: Routine and timely follow-up to hospitalizations, ED visits and stays in other institutional settings, including symptom and disease management, and medication reconciliation and management; and/or Managing care intensively through new diagnoses, injuries and exacerbations of illness.	IA_PM_15
Implementation of medication management practice improvements	Manage medications to maximize efficiency, effectiveness and safety that could include one or more of the following: Reconcile and coordinate medications and provide medication management across transitions of care settings and eligible clinicians or groups; Integrate a pharmacist into the care team; and/or Conduct periodic, structured medication reviews.	IA_PM_16
Participation in Population Health Research	Participation in federally and/or privately funded research that identifies interventions, tools, or processes that can improve a targeted patient population.	IA_PM_17
Provide Clinical-Community Linkages	Engaging community health workers to provide a comprehensive link to community resources through family-based services focusing on success in health, education, and self-sufficiency. This activity supports individual MIPS eligible clinicians or groups that coordinate with primary care and other clinicians, engage and support patients, use of health information technology, and employ quality measurement and improvement processes. An example of this community based program is the NCQA Patient-Centered Connected Care (PCCC) Recognition Program or other such programs that meet these criteria.	IA_PM_18
Glycemic Screening Services	For at-risk outpatient Medicare beneficiaries, individual MIPS eligible clinicians and groups must attest to implementation of systematic preventive approaches in clinical practice for at least 60 percent for the 2018 performance period and 75 percent in future years, of electronic medical records with documentation of screening patients for abnormal blood glucose according to current US Preventive Services Task Force (USPSTF) and/or American Diabetes Association	IA_PM_19

Activity Name	Activity Description	Activity ID
	(ADA) guidelines.	
Glycemic Referring Services	For at-risk outpatient Medicare beneficiaries, individual MIPS eligible clinicians and groups must attest to implementation of systematic preventive approaches in clinical practice for at least 60 percent for the CY 2018 performance period and 75 percent in future years, of medical records with documentation of referring eligible patients with prediabetes to a CDC-recognized diabetes prevention program operating under the framework of the National Diabetes Prevention Program.	IA_PM_20
Advance Care Planning	Implementation of practices/processes to develop advance care planning that includes: documenting the advance care plan or living will within the medical record, educating clinicians about advance care planning motivating them to address advance care planning needs of their patients, and how these needs can translate into quality improvement, educating clinicians on approaches and barriers to talking to patients about end-of-life and palliative care needs and ways to manage its documentation, as well as informing clinicians of the healthcare policy side of advance care planning.	IA_PM_21
Implementation of Use of Specialist Reports Back to Referring Clinician or Group to Close Referral Loop	Performance of regular practices that include providing specialist reports back to the referring individual MIPS eligible clinician or group to close the referral loop or where the referring individual MIPS eligible clinician or group initiates regular inquiries to specialist for specialist reports which could be documented or noted in the EHR technology.	IA_CC_1
Implementation of improvements that contribute to more timely communication of test results	Timely communication of test results defined as timely identification of abnormal test results with timely follow-up.	IA_CC_2
Implementation of additional activity as a result of TA for improving care coordination	Implementation of at least one additional recommended activity from the Quality Innovation Network-Quality Improvement Organization after technical assistance has been provided related to improving care coordination.	IA_CC_3
TCPI Participation	Participation in the CMS Transforming Clinical Practice Initiative	IA_CC_4
CMS partner in Patients Hospital Engagement Network	Membership and participation in a CMS Partnership for Patients Hospital Engagement Network.	IA_CC_5
Use of QCDR to promote standard practices, tools and processes in practice for improvement in care coordination	Participation in a Qualified Clinical Data Registry, demonstrating performance of activities that promote use of standard practices, tools and processes for quality improvement (e.g., documented preventative screening and vaccinations that can be shared across MIPS eligible clinician or groups).	IA_CC_6
Regular training in care coordination	Implementation of regular care coordination training.	IA_CC_7
Implementation of documentation improvements for practice/process improvements	Implementation of practices/processes that document care coordination activities (e.g., a documented care coordination encounter that tracks all clinical staff involved and communications from date patient is scheduled for outpatient procedure through day of procedure).	IA_CC_8

Activity Name	Activity Description	Activity ID
Implementation of practices/processes for developing regular individual care plans	Implementation of practices/processes, including a discussion on care, to develop regularly updated individual care plans for at-risk patients that are shared with the beneficiary or caregiver(s). Individual care plans should include consideration of a patient's goals and priorities, as well as desired outcomes of care.	IA_CC_9
Care transition documentation practice improvements	Implementation of practices/processes for care transition that include documentation of how a MIPS eligible clinician or group carried out a patient-centered action plan for first 30 days following a discharge (e.g., staff involved, phone calls conducted in support of transition, accompaniments, navigation actions, home visits, patient information access, etc.).	IA_CC_10
Care transition standard operational improvements	Establish standard operations to manage transitions of care that could include one or more of the following: Establish formalized lines of communication with local settings in which empaneled patients receive care to ensure documented flow of information and seamless transitions in care; and/or Partner with community or hospital-based transitional care services.	IA_CC_11
Care coordination agreements that promote improvements in patient tracking across settings	Establish effective care coordination and active referral management that could include one or more of the following: Establish care coordination agreements with frequently used consultants that set expectations for documented flow of information and MIPS eligible clinician or MIPS eligible clinician group expectations between settings. Provide patients with information that sets their expectations consistently with the care coordination agreements; Track patients referred to specialist through the entire process; and/or Systematically integrate information from referrals into the plan of care.	IA_CC_12
Practice Improvements for Bilateral Exchange of Patient Information	Ensure that there is bilateral exchange of necessary patient information to guide patient care, such as Open Notes, that could include one or more of the following: • Participate in a Health Information Exchange if available; and/or • Use structured referral notes.	IA_CC_13
Practice Improvements that Engage Community Resources to Support Patient Health Goals	Develop pathways to neighborhood/community-based resources to support patient health goals that could include one or more of the following: • Maintain formal (referral) links to community-based chronic disease self-management support programs, exercise programs and other wellness resources with the potential for bidirectional flow of information; and provide a guide to available community resources. • Including through the use of tools that facilitate electronic communication between settings; • Screen patients for health-harming legal needs; • Screen and assess patients for social needs using tools that are preferably health IT enabled and that include to any extent standards-based, coded question/field for the capture of data as is feasible and available as part of such tool; and/or • Provide a guide to available community resources.	IA_CC_14
PSH Care Coordination	Participation in a Perioperative Surgical Home (PSH) that provides a patient-centered, physician-led, interdisciplinary, and team-based system of coordinated patient care, which coordinates care from pre-procedure assessment through the acute care episode, recovery, and post-acute	IA_CC_15

Activity Name	Activity Description	Activity ID
	care. This activity allows for reporting of strategies and processes related to care coordination of patients receiving surgical or procedural care within a PSH. The clinician must perform one or more of the following care coordination activities: • Coordinate with care managers/navigators in preoperative clinic to plan and implementation comprehensive post discharge plan of care; • Deploy perioperative clinic and care processes to reduce post-operative visits to emergency rooms; • Implement evidence-informed practices and standardize care across the entire spectrum of surgical patients; or • Implement processes to ensure effective communications and education of patients' post-discharge instructions.	
Primary Care Physician and Behavioral Health Bilateral Electronic Exchange of Information for Shared Patients	The primary care and behavioral health practices use the same electronic health record system for shared patients or have an established bidirectional flow of primary care and behavioral health records.	IA_CC_16
Patient Navigator Program	Implement a Patient Navigator Program that offers evidence-based resources and tools to reduce avoidable hospital readmissions, utilizing a patient-centered and team-based approach, leveraging evidence-based best practices to improve care for patients by making hospitalizations less stressful, and the recovery period more supportive by implementing quality improvement strategies.	IA_CC_17
Use of certified EHR to capture patient reported outcomes	In support of improving patient access, performing additional activities that enable capture of patient reported outcomes (e.g., home blood pressure, blood glucose logs, food diaries, at-risk health factors such as tobacco or alcohol use, etc.) or patient activation measures through use of certified EHR technology, containing this data in a separate queue for clinician recognition and review.	IA_BE_1
Use of QCDR to support clinical decision making	Participation in a QCDR, demonstrating performance of activities that promote implementation of shared clinical decision making capabilities.	IA_BE_2
Engagement with QIN-QIO to implement self-management training programs	Engagement with a Quality Innovation Network-Quality Improvement Organization, which may include participation in self-management training programs such as diabetes.	IA_BE_3
Engagement of patients through implementation of improvements in patient portal	Access to an enhanced patient portal that provides up to date information related to relevant chronic disease health or blood pressure control, and includes interactive features allowing patients to enter health information and/or enables bidirectional communication about medication changes and adherence.	IA_BE_4
Enhancements/regular updates to practice websites/tools that also include considerations for patients with cognitive disabilities	Enhancements and ongoing regular updates and use of websites/tools that include consideration for compliance with section 508 of the Rehabilitation Act of 1973 or for improved design for patients with cognitive disabilities. Refer to the CMS website on Section 508 of the Rehabilitation Act https://www.cms.gov/Research-Statistics-Data-and-Systems/CMS-Information-Technology/Section508/index.html?redirect=/InfoTechGenInfo/07_Section508.asp that requires that institutions receiving federal funds solicit, procure, maintain and use all electronic and information technology (EIT) so that equal or alternate/comparable access is given to members of the	IA_BE_5

Activity Name	Activity Description	Activity ID
	public with and without disabilities. For example, this includes designing a patient portal or website that is compliant with section 508 of the Rehabilitation Act of 1973	
Collection and follow-up on patient experience and satisfaction data on beneficiary engagement	Collection and follow-up on patient experience and satisfaction data on beneficiary engagement, including development of improvement plan.	IA_BE_6
Participation in a QCDR, that promotes use of patient engagement tools.	Participation in a QCDR, that promotes use of patient engagement tools.	IA_BE_7
Participation in a QCDR, that promotes collaborative learning network opportunities that are interactive.	Participation in a QCDR, that promotes collaborative learning network opportunities that are interactive.	IA_BE_8
Use of QCDR patient experience data to inform and advance improvements in beneficiary engagement.	Use of QCDR patient experience data to inform and advance improvements in beneficiary engagement.	IA_BE_9
Participation in a QCDR, that promotes implementation of patient self-action plans.	Participation in a QCDR, that promotes implementation of patient self-action plans.	IA_BE_10
Participation in a QCDR, that promotes use of processes and tools that engage patients for adherence to treatment plan.	Participation in a QCDR, that promotes use of processes and tools that engage patients for adherence to treatment plan.	IA_BE_11
Use evidence-based decision aids to support shared decision-making.	Use evidence-based decision aids to support shared decision-making.	IA_BE_12
Regularly assess the patient experience of care through surveys, advisory councils and/or other mechanisms.	Regularly assess the patient experience of care through surveys, advisory councils and/or other mechanisms.	IA_BE_13
Engage Patients and Families to Guide Improvement in the System of Care	Engage patients and families to guide improvement in the system of care by leveraging digital tools for ongoing guidance and assessments outside the encounter, including the collection and use of patient data for return-to-work and patient quality of life improvement. Platforms and devices that collect patient-generated health data (PGHD) must do so with an active feedback loop, either providing PGHD in real or near-real time to the care team, or generating clinically endorsed real or near-real time	IA_BE_14

Activity Name	Activity Description	Activity ID
	automated feedback to the patient, including patient reported outcomes (PROs). Examples include patient engagement and outcomes tracking platforms, cellular or web-enabled bi-directional systems, and other devices that transmit clinically valid objective and subjective data back to care teams. Because many consumer-grade devices capture PGHD (for example, wellness devices), platforms or devices eligible for this improvement activity must be, at a minimum, endorsed and offered clinically by care teams to patients to automatically send ongoing guidance (one way). Platforms and devices that additionally collect PGHD must do so with an active feedback loop, either providing PGHD in real or near-real time to the care team, or generating clinically endorsed real or near-real time automated feedback to the patient (e.g. automated patient-facing instructions based on glucometer readings). Therefore, unlike passive platforms or devices that may collect but do not transmit PGHD in real or near-real time to clinical care teams, active devices and platforms can inform the patient or the clinical care team in a timely manner of important parameters regarding a patient's status, adherence, comprehension, and indicators of clinical concern.	
Engagement of Patients, Family, and Caregivers in Developing a Plan of Care	Engage patients, family, and caregivers in developing a plan of care and prioritizing their goals for action, documented in the electronic health record (EHR) technology.	IA_BE_15
Evidenced-based techniques to promote self-management into usual care	Incorporate evidence-based techniques to promote self-management into usual care, using techniques such as goal setting with structured follow-up, Teach Back, action planning or motivational interviewing.	IA_BE_16
Use of tools to assist patient self-management	Use tools to assist patients in assessing their need for support for self-management (e.g., the Patient Activation Measure or How's My Health).	IA_BE_17
Provide peer-led support for self-management.	Provide peer-led support for self-management.	IA_BE_18
Use group visits for common chronic conditions (e.g., diabetes).	Use group visits for common chronic conditions (e.g., diabetes).	IA_BE_19
Implementation of condition-specific chronic disease self-management support programs	Provide condition-specific chronic disease self-management support programs or coaching or link patients to those programs in the community.	IA_BE_20
Improved Practices that Disseminate Appropriate Self-Management Materials	Provide self-management materials at an appropriate literacy level and in an appropriate language.	IA_BE_21
Improved Practices that Engage Patients Pre-Visit	Implementation of workflow changes that engage patients prior to the visit, such as a pre-visit development of a shared visit agenda with the patient, or targeted pre-visit laboratory testing that will be result and available to the MIPS eligible clinician to review and discuss during the patient's appointment.	IA_BE_22
Integration of patient	Provide coaching between visits with follow-up on care plan and goals.	IA_BE_23

Activity Name	Activity Description	Activity ID
coaching practices between visits		
Participation in an AHRQ-listed patient safety organization.	Participation in an AHRQ-listed patient safety organization.	IA_PSPA_1
Participation in MOC Part IV	Participation in Maintenance of Certification (MOC) Part IV, such as the American Board of Internal Medicine (ABIM) Approved Quality Improvement (AQI) Program, National Cardiovascular Data Registry (NCDR) Clinical Quality Coach, Quality Practice Initiative Certification Program, American Board of Medical Specialties Practice Performance Improvement Module or ASA Simulation Education Network, for improving professional practice including participation in a local, regional or national outcomes registry or quality assessment program. Performance of monthly activities across practice to regularly assess performance in practice, by reviewing outcomes addressing identified areas for improvement and evaluating the results.	IA_PSPA_2
Participate in IHI Training/Forum Event; National Academy of Medicine, AHRQ Team STEPPS® or Other Similar Activity	For MIPS eligible clinicians not participating in Maintenance of Certification (MOC) Part IV, new engagement for MOC Part IV, such as the Institute for Healthcare Improvement (IHI) Training/Forum Event; National Academy of Medicine, Agency for Healthcare Research and Quality (AHRQ) Team STEPPS®, or the American Board of Family Medicine (ABFM) Performance in Practice Modules.	IA_PSPA_3
Administration of the AHRQ Survey of Patient Safety Culture	Administration of the AHRQ Survey of Patient Safety Culture and submission of data to the comparative database (refer to AHRQ Survey of Patient Safety Culture website http://www.ahrq.gov/professionals/quality-patient-safety/patientsafetyculture/index.html). Note: This activity may be selected once every 4 years, to avoid duplicative information given that some of the modules may change on a year by year basis but over 4 years there would be a reasonable expectation for the set of modules to have undergone substantive change, for the improvement activities performance category score.	IA_PSPA_4
Annual registration in the Prescription Drug Monitoring Program	Annual registration by eligible clinician or group in the prescription drug monitoring program of the state where they practice. Activities that simply involve registration are not sufficient. MIPS eligible clinicians and groups must participate for a minimum of 6 months.	IA_PSPA_5
Consultation of the Prescription Drug Monitoring Program	Clinicians would attest to reviewing the patients' history of controlled substance prescription using state prescription drug monitoring program (PDMP) data prior to the issuance of a Controlled Substance Schedule II (CSII) opioid prescription lasting longer than 3 days. For the transition year, clinicians would attest to 60 percent review of applicable patient's history. For the Quality Payment Program Year 2 and future years, clinicians would attest to 75 percent review of applicable patient's history performance.	IA_PSPA_6
Use of QCDR data for ongoing practice assessment and improvements	Use of QCDR data, for ongoing practice assessment and improvements in patient safety.	IA_PSPA_7
Use of Patient Safety Tools	Use of tools that assist specialty practices in tracking specific measures that are meaningful to their practice, such as use of a surgical risk calculator, evidence based protocols such as Enhanced Recovery After Surgery (ERAS) protocols, the CDC Guide for Infection Prevention for Outpatient Settings, (https://www.cdc.gov/hai/settings/outpatient/outpatient-care-	IA_PSPA_8

Activity Name	Activity Description	Activity ID
	guidelines.html), predictive algorithms, or other such tools.	
Completion of the AMA STEPS Forward program	Completion of the American Medical Association's STEPS Forward program.	IA_PSPA_9
Completion of training and receipt of approved waiver for provision opioid medication-assisted treatments	Completion of training and obtaining an approved waiver for provision of medication -assisted treatment of opioid use disorders using buprenorphine.	IA_PSPA_10
Participation in CAHPS or other supplemental questionnaire	Participation in the Consumer Assessment of Healthcare Providers and Systems Survey or other supplemental questionnaire items (e.g., Cultural Competence or Health Information Technology supplemental item sets).	IA_PSPA_11
Participation in private payer CPIA	Participation in designated private payer clinical practice improvement activities.	IA_PSPA_12
Participation in Joint Commission Evaluation Initiative	Participation in Joint Commission Ongoing Professional Practice Evaluation initiative	IA_PSPA_13
Participation in Quality Improvement Initiatives	Participation in other quality improvement programs such as Bridges to Excellence or American Board of Medical Specialties (ABMS) Multi-Specialty Portfolio Program.	IA_PSPA_14
Implementation of an ASP	Change Activity Description to: Leadership of an Antimicrobial Stewardship Program (ASP) that includes implementation of an ASP that measures the appropriate use of antibiotics for several different conditions (such as but not limited to upper respiratory infection treatment in children, diagnosis of pharyngitis, bronchitis treatment in adults) according to clinical guidelines for diagnostics and therapeutics. Specific activities may include: • Develop facility-specific antibiogram and prepare report of findings with specific action plan that aligns with overall facility or practice strategic plan. • Lead the development, implementation, and monitoring of patient care and patient safety protocols for the delivery of ASP including protocols pertaining to the most appropriate setting for such services (i.e., outpatient or inpatient). • Assist in improving ASP service line efficiency and effectiveness by evaluating and recommending improvements in the management structure and workflow of ASP processes. • Manage compliance of the ASP policies and assist with implementation of corrective actions in accordance with facility or clinic compliance policies and hospital medical staff by-laws. • Lead the education and training of professional support staff for the purpose of maintaining an efficient and effective ASP. • Coordinate communications between ASP management and facility or practice personnel regarding activities, services, and operational/clinical protocols to achieve overall compliance and understanding of the ASP. • Assist, at the request of the facility or practice, in preparing for and responding to third-party requests, including but not limited to payer audits, governmental inquiries, and professional inquiries that pertain to the ASP service line. • Implementing and tracking an evidence-based policy or practice aimed at improving antibiotic prescribing practices for high-priority conditions.	IA_PSPA_15

Activity Name	Activity Description	Activity ID
	- Developing and implementing evidence-based protocols and decision-support for diagnosis and treatment of common infections. - Implementing evidence-based protocols that align with recommendations in the Centers for Disease Control and Prevention's Core Elements of Outpatient Antibiotic Stewardship guidance	
Use of decision support and standardized treatment protocols	Use decision support and standardized treatment protocols to manage workflow in the team to meet patient needs.	IA_PSPA_16
Implementation of analytic capabilities to manage total cost of care for practice population	Build the analytic capability required to manage total cost of care for the practice population that could include one or more of the following: Train appropriate staff on interpretation of cost and utilization information; and/or Use available data regularly to analyze opportunities to reduce cost through improved care.	IA_PSPA_17
Measurement and Improvement at the Practice and Panel Level	Measure and improve quality at the practice and panel level, such as the American Board of Orthopaedic Surgery (ABOS) Physician Scorecards, that could include one or more of the following: - Regularly review measures of quality, utilization, patient satisfaction and other measures that may be useful at the practice level and at the level of the care team or MIPS eligible clinician or group (panel); and/or - Use relevant data sources to create benchmarks and goals for performance at the practice level and panel level.	IA_PSPA_18
Implementation of formal quality improvement methods, practice changes, or other practice improvement processes	Adopt a formal model for quality improvement and create a culture in which all staff actively participates in improvement activities that could include one or more of the following such as: - Multi-Source Feedback; - Train all staff in quality improvement methods; - Integrate practice change/quality improvement into staff duties; - Engage all staff in identifying and testing practices changes; - Designate regular team meetings to review data and plan improvement cycles; - Promote transparency and accelerate improvement by sharing practice level and panel level quality of care, patient experience and utilization data with staff; and/or - Promote transparency and engage patients and families by sharing practice level quality of care, patient experience and utilization data with patients and families, including activities in which clinicians act upon patient experience data.	IA_PSPA_19
Leadership engagement in regular guidance and demonstrated commitment for implementing practice improvement changes	Ensure full engagement of clinical and administrative leadership in practice improvement that could include one or more of the following: Make responsibility for guidance of practice change a component of clinical and administrative leadership roles; Allocate time for clinical and administrative leadership for practice improvement efforts, including participation in regular team meetings; and/or	IA_PSPA_20

Activity Name	Activity Description	Activity ID
	Incorporate population health, quality and patient experience metrics in regular reviews of practice performance.	
Implementation of fall screening and assessment programs	Implementation of fall screening and assessment programs to identify patients at risk for falls and address modifiable risk factors (e.g., Clinical decision support/prompts in the electronic health record that help manage the use of medications, such as benzodiazepines, that increase fall risk).	IA_PSPA_21
CDC Training on CDC's Guideline for Prescribing Opioids for Chronic Pain	Completion of all the modules of the Centers for Disease Control and Prevention (CDC) course "Applying CDC's Guideline for Prescribing Opioids" that reviews the 2016 "Guideline for Prescribing Opioids for Chronic Pain." <u>Note:</u> This activity may be selected once every 4 years, to avoid duplicative information given that some of the modules may change on a year by year basis but over 4 years there would be a reasonable expectation for the set of modules to have undergone substantive change, for the improvement activities performance category score.	IA_PSPA_22
Completion of CDC Training on Antibiotic Stewardship	Completion of all modules of the Centers for Disease Control and Prevention antibiotic stewardship course. <u>Note:</u> This activity may be selected once every 4 years, to avoid duplicative information given that some of the modules may change on a year by year basis but over 4 years there would be a reasonable expectation for the set of modules to have undergone substantive change, for the improvement activities performance category score.	IA_PSPA_23
Initiate CDC Training on Antibiotic Stewardship	Completion of greater than 50 percent of the modules of the Centers for Disease Control and Prevention antibiotic stewardship course. <u>Note:</u> This activity may be selected once every 4 years, to avoid duplicative information given that some of the modules may change on a year by year basis, but over 4 years there would be a reasonable expectation for the set of modules to have undergone substantive change, for the improvement activities performance category score.	IA_PSPA_24
Cost Display for Laboratory and Radiographic Orders	Implementation of a cost display for laboratory and radiographic orders, such as costs that can be obtained through the Medicare clinical laboratory fee schedule.	IA_PSPA_25
Communication of Unscheduled Visit for Adverse Drug Event and Nature of Event	A MIPS eligible clinician providing unscheduled care (such as an emergency room, urgent care, or other unplanned encounter) attests that, for greater than 75 percent of case visits that result from a clinically significant adverse drug event, the MIPS eligible clinician provides information, including through the use of health IT to the patient's primary care clinician regarding both the unscheduled visit and the nature of the adverse drug event within 48 hours. A clinically significant adverse event is defined as a medication-related harm or injury such as side-effects, supratherapeutic effects, allergic reactions, laboratory abnormalities, or medication errors requiring urgent/emergent evaluation, treatment, or hospitalization.	IA_PSPA_26
Invasive Procedure or Surgery Anticoagulation Medication Management	For an anticoagulated patient undergoing a planned invasive procedure for which interruption in anticoagulation is anticipated, including patients taking vitamin K antagonists (warfarin), target specific oral anticoagulants (such as apixaban, dabigatran, and rivaroxaban), and heparins/low molecular weight heparins, documentation, including through the use of electronic tools, that the plan for anticoagulation management in the periprocedural period was discussed with the patient and with the clinician responsible for managing the patient's anticoagulation. Elements of the plan should include the following: discontinuation, resumption, and, if applicable, bridging, laboratory monitoring, and management of concomitant antithrombotic medications (such as antiplatelets and	IA_PSPA_27

Activity Name	Activity Description	Activity ID
	nonsteroidal anti-inflammatory drugs (NSAIDs)). An invasive or surgical procedure is defined as a procedure in which skin or mucous membranes and connective tissue are incised, or an instrument is introduced through a natural body orifice.	
Completion of an Accredited Safety or Quality Improvement Program	Completion of an accredited performance improvement continuing medical education program that addresses performance or quality improvement according to the following criteria: • The activity must address a quality or safety gap that is supported by a needs assessment or problem analysis, or must support the completion of such a needs assessment as part of the activity; • The activity must have specific, measurable aim(s) for improvement; • The activity must include interventions intended to result in improvement; • The activity must include data collection and analysis of performance data to assess the impact of the interventions; and The accredited program must define meaningful clinician participation in their activity, describe the mechanism for identifying clinicians who meet the requirements, and provide participant completion information.	IA_PSPA_28
Consulting AUC Using Clinical Decision Support when Ordering Advanced	Clinicians attest that they are consulting specified applicable AUC through a qualified clinical decision support mechanism for all applicable imaging services furnished in an applicable setting, paid for under an applicable payment system, and ordered on or after January 1, 2018. This activity is for clinicians that are early adopters of the Medicare AUC program (2018 performance year) and for clinicians that begin the Medicare AUC program in future years as specified in our regulation at §414.94. The AUC program is required under section 218 of the Protecting Access to Medicare Act of 2014. Qualified mechanisms will be able to provide a report to the ordering clinician that can be used to assess patterns of image-ordering and improve upon those patterns to ensure that patients are receiving the most appropriate imaging for their individual condition.	IA_PSPA_29
PCI Bleeding Campaign	Participation in the PCI Bleeding Campaign which is a national quality improvement program that provides infrastructure for a learning network and offers evidence-based resources and tools to reduce avoidable bleeding associated with patients who receive a percutaneous coronary intervention (PCI). The program uses a patient-centered and team-based approach, leveraging evidence-based best practices to improve care for PCI patients by implementing quality improvement strategies: • Radial-artery access, • Bivalirudin, and • Use of vascular closure devices.	IA_PSPA_30
Engagement of New Medicaid Patients and Follow-up	Seeing new and follow-up Medicaid patients in a timely manner, including individuals dually eligible for Medicaid and Medicare. A timely manner is defined as within 10 business days for this activity.	IA_AHE_1
Leveraging a QCDR to standardize processes for screening	Participation in a QCDR, demonstrating performance of activities for use of standardized processes for screening for social determinants of health such as food security, employment and housing. Use of supporting tools that can be incorporated into the certified EHR technology is also suggested.	IA_AHE_2
Promote Use of Patient-Reported Outcome Tools	Demonstrate performance of activities for employing patient-reported outcome (PRO) tools and corresponding collection of PRO data such as the use of PQH-2 or PHQ-9, PROMIS instruments, patient reported Wound-Quality of Life (QoL), patient reported Wound Outcome, and	IA_AHE_3

Activity Name	Activity Description	Activity ID
	patient reported Nutritional Screening.	
Leveraging a QCDR for use of standard questionnaires	Participation in a QCDR, demonstrating performance of activities for use of standard questionnaires for assessing improvements in health disparities related to functional health status (e.g., use of Seattle Angina Questionnaire, MD Anderson Symptom Inventory, and/or SF-12/VR-12 functional health status assessment).	IA_AHE_4
MIPS Eligible Clinician Leadership in Clinical Trials or CBPR	MIPS eligible clinician leadership in clinical trials, research alliances or community-based participatory research (CBPR) that identify tools, research or processes that can focus on minimizing disparities in healthcare access, care quality, affordability, or outcomes.	IA_AHE_5
Provide Education Opportunities for New Clinicians	MIPS eligible clinicians acting as a preceptor for clinicians-in-training (such as medical residents/fellows, medical students, physician assistants, nurse practitioners, or clinical nurse specialists) and accepting such clinicians for clinical rotations in community practices in small, underserved, or rural areas.	IA_AHE_6
Participation on Disaster Medical Assistance Team, registered for 6 months.	Participation in Disaster Medical Assistance Teams, or Community Emergency Responder Teams. Activities that simply involve registration are not sufficient. MIPS eligible clinicians and MIPS eligible clinician groups must be registered for a minimum of 6 months as a volunteer for disaster or emergency response.	IA_ERP_1
Participation in a 60-day or greater effort to support domestic or international humanitarian needs.	Participation in domestic or international humanitarian volunteer work. Activities that simply involve registration are not sufficient. MIPS eligible clinicians and groups attest to domestic or international humanitarian volunteer work for a period of a continuous 60 days or greater.	IA_ERP_2
Diabetes screening	Diabetes screening for people with schizophrenia or bipolar disease who are using antipsychotic medication.	IA_BMH_1
Tobacco use	Tobacco use: Regular engagement of MIPS eligible clinicians or groups in integrated prevention and treatment interventions, including tobacco use screening and cessation interventions (refer to NQF #0028) for patients with co-occurring conditions of behavioral or mental health and at risk factors for tobacco dependence.	IA_BMH_2
Unhealthy alcohol use	Unhealthy alcohol use: Regular engagement of MIPS eligible clinicians or groups in integrated prevention and treatment interventions, including screening and brief counseling (refer to NQF #2152) for patients with co-occurring conditions of behavioral or mental health conditions.	IA_BMH_3
Depression screening	Depression screening and follow-up plan: Regular engagement of MIPS eligible clinicians or groups in integrated prevention and treatment interventions, including depression screening and follow-up plan (refer to NQF #0418) for patients with co-occurring conditions of behavioral or mental health conditions.	IA_BMH_4
MDD prevention and treatment interventions	Major depressive disorder: Regular engagement of MIPS eligible clinicians or groups in integrated prevention and treatment interventions, including suicide risk assessment (refer to NQF #0104) for mental health patients with co-occurring conditions of behavioral or mental health conditions.	IA_BMH_5
Implementation of co-location PCP and MH services	Integration facilitation and promotion of the colocation of mental health and substance use disorder services in primary and/or non-primary clinical care settings.	IA_BMH_6

Activity Name	Activity Description	Activity ID
Implementation of Integrated Patient Centered Behavioral Health Model	Offer integrated behavioral health services to support patients with behavioral health needs who also have conditions such as dementia or other poorly controlled chronic illnesses. The services could include one or more of the following: • Use evidence-based treatment protocols and treatment to goal where appropriate; • Use evidence-based screening and case finding strategies to identify individuals at risk and in need of services; • Ensure regular communication and coordinated workflows between MIPS eligible clinicians in primary care and behavioral health; • Conduct regular case reviews for at-risk or unstable patients and those who are not responding to treatment; • Use of a registry or health information technology functionality to support active care management and outreach to patients in treatment; • Integrate behavioral health and medical care plans and facilitate integration through co-location of services when feasible; and/or • Participate in the National Partnership to Improve Dementia Care Initiative, which promotes a multidimensional approach that includes public reporting, state-based coalitions, research, training, and revised surveyor guidance.	IA_BMH_7
Electronic Health Record Enhancements for BH data capture	Enhancements to an electronic health record to capture additional data on behavioral health (BH) populations and use that data for additional decision-making purposes (e.g., capture of additional BH data results in additional depression screening for at-risk patient not previously identified).	IA_BMH_8
Unhealthy Alcohol Use for Patients with Co-occurring Conditions of Mental Health and Substance Abuse and Ambulatory Care Patients	Individual MIPS eligible clinicians or groups must regularly engage in integrated prevention and treatment interventions, including screening and brief counseling (for example: NQF #2152) for patients with co-occurring conditions of mental health and substance abuse. MIPS eligible clinicians would attest that 60 percent for the CY 2018 Quality Payment Program performance period, and 75 percent beginning in the 2019 performance period, of their ambulatory care patients are screened for unhealthy alcohol use.	IA_BMH_9
Electronic submission of Patient Centered Medical Home accreditation	N/A	IA_PCMH

Table 49: 2018 Promoting Interoperability Objectives and Measures Identifiers

Objective	Measure Identifier	Measure	Reporting Metric
Protect Patient Health Information	PI_PPHI_1	Security Risk Analysis	Yes/No
Electronic Prescribing	PI_EP_1	ePrescribing	Numerator/Denominator
	PI_LVPP_1	*ePrescribing Exclusion	Yes/No
Patient Electronic Access	PI_PEA_1	Provide Patient Access	Numerator/Denominator
	PI_PEA_2	Patient-Specific Education	Numerator/Denominator

Objective	Measure Identifier	Measure	Reporting Metric
Coordination of Care Through Patient Engagement	PI_CCTPE_1	View, Download or Transmit (VDT)	Numerator/Denominator
	PI_CCTPE_2	Secure Messaging	Numerator/Denominator
	PI_CCTPE_3	Patient-Generated Health Data	Numerator/Denominator
Health Information Exchange	PI_HIE_1	Send a Summary of Care	Numerator/Denominator
	PI_LVOTC_1	*Send a Summary of Care Exclusion	Yes/No
	PI_HIE_2	Request/Accept Summary of Care	Numerator/Denominator
	PI_LVITC_1	*Request/Accept Summary of Care Exclusion	Yes/No
	PI_HIE_3	Clinical Information Reconciliation	Numerator/Denominator
Public Health and Clinical Data Registry Reporting	PI_PHCDRR_1	Immunization Registry Reporting	Yes/No
	PI_PHCDRR_1_MULTI	Immunization Registry Reporting for Multiple Registry Engagement	Yes/No (Report as “Yes” if there is active engagement with more than one immunization registry in accordance with PI_PHCDRR_1.)
	PI_PHCDRR_2	Syndromic Surveillance Reporting	Yes/No
	PI_PHCDRR_2_MULTI	Syndromic Surveillance Reporting for Multiple Registry Engagement	Yes/No (Report as “Yes” if there is active engagement with more than one Syndromic Surveillance registry in accordance with PI_PHCDRR_2.)
	PI_PHCDRR_3	Electronic Case Reporting	Yes/No
	PI_PHCDRR_3_MULTI	Electronic Case Reporting for Multiple Registry Engagement	Yes/No (Report as “Yes” if there is active engagement with more than one Electronic Case Reporting registry in accordance with PI_PHCDRR_3.)
	PI_PHCDRR_4	Public Health Registry Reporting	Yes/No
	PI_PHCDRR_4_MULTI	Public Health Registry Reporting for Multiple Registry Engagement	Yes/No (Report as “Yes” if there is active engagement with more than one Public

Objective	Measure Identifier	Measure	Reporting Metric
			Health Registry in accordance with PI_PHCDRR_4.)
	PI_PHCDRR_5	(Clinical Data Registry Reporting	Yes/No
	PI_PHCDRR_5_MULTI	Clinical Data Registry Reporting for Multiple Registry Engagement	Yes/No (Report as “Yes” if there is active engagement with more than one Clinical Data Registry in accordance with PI_PHCDRR_5.)

In the 2018 performance period, clinicians and groups that exclusively report Promoting Interoperability Objectives and Measures will automatically earn a 10% bonus.

* Indicates a Measure Exclusion. In order for the exclusion to be accepted, the associated measure must have a zero or null in the Numerator/Denominator field.

Table 50: 2018 Promoting Interoperability Transition Objectives and Measures Identifiers

Objective	Measure Identifier	Measure for MIPS (in 2017 only)	Reporting Metric
Protect Patient Health Information	PII_TRANS_PPHI_1	Security Risk Analysis	Yes/No
Electronic Prescribing	PI_TRANS_EP_1	e-Prescribing	Numerator/Denominator
	PI_TRANS_LVPP_1	*e-Prescribing Exclusion	Yes/No
Patient Electronic Access	PI_TRANS_PEA_1	Provide Patient Access	Numerator/Denominator
	PI_TRANS_PEA_2	View, Download, or Transmit (VDT)	Numerator/Denominator
Patient-Specific Education	PI_TRANS_PSE_1	Patient-Specific Education	Numerator/Denominator
Secure Messaging	PI_TRANS_SM_1	Secure Messaging	Numerator/Denominator
Health Information Exchange	PI_TRANS_HIE_1	Health Information Exchange	Numerator/Denominator
	PI_TRANS_LVOTC_1	*Health Information Exchange Exclusion	Yes/No
Medication Reconciliation	PI_TRANS_MR_1	Medication Reconciliation	Numerator/Denominator
Public Health Reporting	PI_TRANS_PHCDRR_1	Immunization Registry Reporting	Yes/No

	PI_TRANS_PHCDRR_1_MULTI	Immunization Registry Reporting for Multiple Registry Engagement	Yes/No (Report as “Yes” if there is active engagement with more than one Immunization Registry in accordance with PI_TRANS_PHCDRR_1.)
	PI_TRANS_PHCDRR_2	Syndromic Surveillance Reporting	Yes/No
	PI_TRANS_PHCDRR_2_MULTI	Syndromic Surveillance Reporting for Multiple Registry Engagement	Yes/No (Report as “Yes” if there is active engagement with more than one Syndromic Surveillance Registry in accordance with PI_TRANS_PHCDRR_2.)
	PI_TRANS_PHCDRR_3	Specialized Registry Reporting	Yes/No
	PI_TRANS_PHCDRR_3_MULTI	Specialized Registry Reporting for Multiple Registry Engagement	Yes/No (Report as “Yes” if there is active engagement with more than one Specialized Registry in accordance with PI_TRANS_PHCDRR_3.)

*Indicates a Measure Exclusion. In order for the exclusion to be accepted, the associated measure must have a zero or null in the Numerator/Denominator field.

Table 51: Promoting Interoperability Attestation Statements Identifiers

Identifier	Attestation Statement	Reporting Metric
PI_INFBLO_1	Prevention of Information Blocking Attestation (Required)	Yes/No
PI_ONCDIR_1	ONC Direct Review Attestation (Required)	Yes/No
PI_ONCACB_1	ONC-ACB Surveillance Attestation (Optional)	Yes/No

Table 52: Promoting Interoperability Improvement Activities Bonus Identifier

Identifier	Description	Reporting Metric
PI_IACEHRT_1	PI bonus for submission of eligible Improvement Activities using CEHRT	Yes/No

APPENDIX

8 Troubleshooting and Support

8.1 Resources

The following provide additional information:

- **Comprehensive Primary Care Plus (CPC+):**
<https://innovation.cms.gov/initiatives/comprehensive-primary-care-plus>
- **eCQI Resource Center** is the one-stop shop for the most current resources to support electronic clinical quality improvement: <https://ecqi.healthit.gov/>
- **eCQM Library** contains resources for eCQMs including Measure Logic Guidance: http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/eCQM_Library.html
- **National Library of Medicine (NLM) Value Set Authority Center (VSAC)** contains the official versions of the value sets used for eCQMs: <https://vsac.nlm.nih.gov/>
- **Electronic Clinical Quality Measure specification feedback system** is a tool offered by CMS and the Office of the National Coordinator (ONC) for Health Information Technology for implementers to submit issues and request guidance on eCQM logic, specifications, and certification: <https://oncprojecttracking.healthit.gov/>
- **Quality Payment Program:** <https://qpp.cms.gov>

8.2 Support

Table 53: Support Contact Information

Contact	Organization	Phone	Email
QPP Service Center	CMS	1-866-288-8292 TTY: 1-877-715-6222	QPP@cms.hhs.gov
CPC+	CMS	1-888-372-3280	CPCPlus@telligen.com

8.3 Errata or Enhancement Requests

Table 54: Errata or Enhancement Request Location

Contact	Organization	URL	Purpose
HL7 QRDA-III, STU Release 2.1 Comments page	HL7	http://www.hl7.org/dstucomments/showdetail.cfm?dstuid=197	Document errors or enhancement request to the HL7 standard.

9 Null Flavor Validation Rules for Data Types

CDA, Release 2 uses the HL7 V3 Data Types, Release 1 abstract and XML-specific specification. Every data element either has a proper value or it is considered NULL. If and only if it is NULL, a "null flavor" provides more detail on why or in what way no proper value is supplied. The table below provides clarifications to proper nullFlavor use for a list of common data types used by this guide.

Table 55: Null Flavor Validation Rules for Data Types

Data Type	CONF.#	Rules
Boolean (BL)	CMS_0105	Data types of BL SHALL have either @value or @nullFlavor but SHALL NOT have both @value and @nullFlavor (CONF:CMS_0105).
Coded Simple (CS)	CMS_0106	Data types of CS SHALL have either @code or @nullFlavor but SHALL NOT have both @code and @nullFlavor (CONF:CMS_0106).
Coded Descriptor (CD)	CMS_0107	Data types of CD or CE SHALL have either @code or @nullFlavor but SHALL NOT have both @code and @nullFlavor (CONF:CMS_0107).
Coded With Equivalents (CE)		
Instance Identifier (II)	CMS_0108	Data types of II SHALL have either @root or @nullFlavor or (@root and @nullFlavor) or (@root and @extension) but SHALL NOT have all three of (@root and @extension and @nullFlavor) (CONF:CMS_0108).
Integer Number (INT)	CMS_0109	Data types of INT SHALL NOT have both @value and @nullFlavor (CONF:CMS_0109).
Physical Quantity (PQ)	CMS_0110	Data types of PQ SHALL have either @value or @nullFlavor but SHALL NOT have both @value and @nullFlavor. If @value is present then @unit SHALL be present but @unit SHALL NOT be present if @value is not present (CONF:CMS_0110).
Real Number (REAL)	CMS_0111	Data types of REAL SHALL NOT have both @value and @nullFlavor (CONF:CMS_0111).
String (ST)	CMS_0112	Data types of ST SHALL either not be empty or have @nullFlavor (CONF:CMS_0112).
Point in Time (TS)	CMS_0113	Data types of TS SHALL have either @value or @nullFlavor but SHALL NOT have @value and @nullFlavor (CONF:CMS_0113).
Universal Resource Locator (URL)	CMS_0114	Data types of URL SHALL have either @value or @nullFlavor but SHALL NOT have both @value and @nullFlavor (CONF:CMS_0114).

10 NPI and TIN Validation Rules

Table 56: NPI Validation Rules and Table 57: TIN Validation Rules list the validation rules performed on the NPI and TIN.

Table 56: NPI Validation Rules

CONF.#	Rules
CMS_0115	The NPI should have 10 digits.
CMS_0116	The NPI should be composed of all digits.
CMS_0117	The NPI should have a correct checksum using the Luhn algorithm.
CMS_0118	The NPI should have @extension or @nullFlavor, but not both.

Table 57: TIN Validation Rules

CONF.#	Rules
CMS_0119	When a Tax Identification Number is used, the provided TIN must be in valid format (9 decimal digits).
CMS_0120	The TIN SHALL have either @extension or @nullFlavor, but not both.

11 Change Log – CMS QRDA-III Implementation Guide Changes to QRDA-III STU R2.1 Base Standard

This table lists all changes made to this 2018 guide from the "Base Standard", the *HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture, Category III, STU Release 2.1*.

Table 58: Changes Made to the QRDA-III Base Standard

CONF. #	Section	Base Standard	Changed To
711280 711281 711305	5.1	n/a	SHALL contain exactly one [1..1] templateId (CONF:2233-711280) such that it SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.1.2" (CONF:2233-711281). SHALL contain exactly one [1..1] @extension="2017-07-01" (CONF:2233-711305).
711174 711246	5.1	SHALL contain exactly one [1..1] confidentialityCode, which SHOULD be selected from ValueSet HL7 BasicConfidentialityKind urn:oid:2.16.840.1.113883.1.1.1.16926 STATIC (CONF:3259-17238).	SHALL contain exactly one [1..1] confidentialityCode (CONF:2233-711174). This confidentialityCode SHALL contain exactly one [1..1] @code="N" Normal (CodeSystem: ConfidentialityCode urn:oid:2.16.840.1.113883.5.25 STATIC) (CONF:2233-711246).
711173 711247	5.1	This languageCode SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet Language urn:oid:2.16.840.1.113883.1.1.1.11526 DYNAMIC (CONF:3259-19669).	SHALL contain exactly one [1..1] languageCode (CONF:2233-711173). This languageCode SHALL contain exactly one [1..1] @code="en" English (CodeSystem: Language urn:oid:2.16.840.1.113883.6.121) (CONF:2233-711247).
711240	5.1.2	n/a	This assignedAuthor SHALL contain exactly one [1..1] id (CONF: 2233-711240).
711158	5.1.4	n/a	SHALL contain exactly one [1..1] informationRecipient (CONF: 2233-711158).

CONF. #	Section	Base Standard	Changed To
711159	5.1.4	n/a	This informationRecipient SHALL contain exactly one [1..1] intendedRecipient (CONF: 2233-711159).
711160	5.1.4	n/a	This intendedRecipient SHALL contain exactly one [1..1] id (CONF: 2233-711160).
711161	5.1.4	n/a	The id/@root specifies that this identifier represents a CMS Program. This id SHALL contain exactly one [1..1] @root ="2.16.840.1.113883.3.249.7" CMS Program (CONF: 2233-711161).
711162	5.1.4	n/a	The id/@extension contains the CMS Program the report is being submitted to. This id SHALL contain exactly one [1..1] @extension , which SHALL be selected from ValueSet CMS Program Name 2.16.840.1.113883.3.249.14.101 STATIC (CONF: 2233-711162).
711248	5.1.4	n/a	If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="CP CPLUS", then ClinicalDocument/participant/@typeCode="LOC" SHALL be present (CONF: 2233-711248).
711340	5.1.4	n/a	If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="CP CPLUS", then QRDA Category III Measure Section – CMS (V2) SHALL be present (CONF:2233-711340).
711342	5.1.4	n/a	If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="CP CPLUS", then Performance Rate for Proportion Measure – CMS (V2) SHALL be present (CONF:2233-711342).

CONF. #	Section	Base Standard	Changed To
17225	5.1.5	SHALL contain exactly one [1..1] legalAuthenticator (CONF:17225).	SHALL contain exactly one [1..1] legalAuthenticator (CONF: 2233-17225). Note: If a vendor is used, the vendor is the legalAuthenticator.
18167	5.1.5	This legalAuthenticator SHALL contain exactly one [1..1] time (CONF:18167).	This legalAuthenticator SHALL contain exactly one [1..1] time (CONF: 2233-18167). Note: This value is when the document was signed.
19670	5.1.5	This legalAuthenticator SHALL contain exactly one [1..1] assignedEntity (CONF:19670).	When the legalAuthenticator is a vendor, the representedOrganization/id is the vendor TIN. The representedOrganization, if present, SHALL contain at least one [1..*] id (CONF: 2233-19670).
711150	5.1.7	n/a	MAY contain zero or one [0..1] participant (CONF: 2233-711150) such that it
711151	5.1.7	n/a	SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType 2.16.840.1.113883.5.90) (CONF: 2233-711151).
711152	5.1.7	n/a	SHALL contain exactly one [1..1] associatedEntity (CONF:2233-711152).
711153	5.1.7	n/a	This associatedEntity SHALL contain exactly one [1..1] @classCode="SDLOC" Service Delivery Location (CodeSystem: RoleClass 2.16.840.1.113883.5.110) (CONF: 2233-711153).
711154	5.1.7	n/a	This associatedEntity SHALL contain exactly one [1..1] id (CONF:2233-711154).
711155	5.1.7	n/a	This id SHALL contain exactly one [1..1] @root="2.16.840.1.113883.3.249.5.1" CPC Practice Site (CONF:2233-711155). Note: This OID contained in the @root (2.16.840.1.113883.3.249.5.1) designates that the @extension must hold a CPCPLUS APM Entity Identifier.

CONF. #	Section	Base Standard	Changed To
711156	5.1.7	n/a	This id SHALL contain exactly one [1..1] @extension (CONF:2233-711156). Note: This is the CPCPLUS APM Entity Identifier assigned to the CPC+ practice site.
711218	5.1.7	n/a	This associatedEntity SHALL contain exactly one [1..1] code (CONF:2233-711218).
711219	5.1.7	n/a	This code SHALL contain exactly one [1..1] @code="394730007" Healthcare Related Organization (CodeSystem: SNOMED CT 2.16.840.1.113883.6.96) (CONF:2233-711219).
711157	5.1.7	n/a	This associatedEntity SHALL contain exactly one [1..1] addr (CONF:2233-711157).
7111214	5.1.8	MAY contain zero or one [0..1] documentationOf (CONF:18170).	SHALL contain exactly one [1..1] documentationOf (CONF:2233-711214).
711220	5.1.8	This serviceEvent SHALL contain at least one [1..*] performer (CONF:18173).	For MIPS group reporting , must contain exactly one performer, which contains one TIN. No NPI is allowed. For MIPS individual reporting , must contain exactly one performer, which contains one TIN and one NPI. For CPCPLUS , must contain at least one performer, each performer contains one TIN and one NPI. Only CPC+ Practice Site providers are listed as performers. This serviceEvent SHALL contain at least one [1..*] performer (CONF:2233-711220).
711167	5.1.8	This assignedEntity id/@root coupled with the id/@extension can be used to represent the individual provider's National Provider Identification number (NPI). Other assignedEntity ids may be present. This assignedEntity SHALL contain exactly one [1..1] id (CONF:18177) such that it	The assignedEntity id/@root ='2.16.840.1.113883.4.6' coupled with the id/@extension represents the individual provider's National Provider Identification number (NPI). NPI is required except for group reporting. For group reporting, id/@root='2.16.840.1.113883.4.6' is coupled with @nullFlavor="NA", and @extension shall be omitted. This assignedEntity SHALL contain exactly one [1..1] id (CONF:2233-711167) such that it

CONF. #	Section	Base Standard	Changed To
711249	5.1.8	n/a	MAY contain zero or one [0..1] @nullFlavor="NA" (CONF:2233-711249). Note: @nullFlavor is only present for MIPS group reporting.
711169	5.1.8	MAY contain zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider ID (CONF:18178).	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.6" National Provider ID (CONF:2233-711169). Note: This value specifies that the id is the provider's National Provider Identifier (NPI).
711170	5.1.8	MAY contain zero or one [0..1] @extension (CONF:18247).	MAY contain zero or one [0..1] @extension (CONF:2233-711170). Note: This is the provider's NPI. It is only present when this is not MIPS group reporting. For CPC+, only those NPIs that are participating in the CPC+ program should be provided.
711168	5.1.8	This representedOrganization MAY contain zero or one [0..1] id (CONF:18181) such that it	This representedOrganization SHALL contain exactly one [1..1] id (CONF:2233-711168) such that it
711171	5.1.8	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.2" Tax ID Number (CONF:18182).	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.2" Tax ID Number (CONF:2233-711171). Note: This value specifies that this id is the organization's Tax Identification Number (TIN).
711172	5.1.8	SHALL contain exactly one [1..1] @extension (CONF:18190).	SHALL contain exactly one [1..1] @extension (CONF:2233-711172).
711141	5.1.10	SHALL contain exactly one [1..1] QRDA Category III Reporting Parameters Section (templateId:2.16.840.1.113883.10.20.27.2.2) (CONF:17282).	SHALL contain exactly one [1..1] QRDA Category III Reporting Parameters Section - CMS (V2) (templateId:2.16.840.1.113883.10.20.27.2.6) (CONF:2233-711141).
711341	5.1.10	This structuredBody MAY contain zero or one [0..1] component (CONF:3338-17281) such that it SHALL contain exactly one [1..1] QRDA Category III Reporting Parameters Section (identifier: urn:oid:2.16.840.1.113883.10.20.27.2.2) (CONF:3338-17282).	This structuredBody SHALL NOT contain [0..0] component (CONF:2233-711341) such that it SHALL contain exactly one [1..1] QRDA Category III Reporting Parameters Section (identifier: urn:oid:2.16.840.1.113883.10.20.27.2.2) (CONF:2233-17282).

CONF. #	Section	Base Standard	Changed To
711142	5.1.10	SHALL contain exactly one [1..1] QRDA Category III Measure Section (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.1:2017-06-01) (CONF:3338-17301).	SHALL contain exactly one [1..1] QRDA Category III Measure Section - CMS (V2) (templateId:2.16.840.1.113883.10.20.27.2.3) (CONF:2233-711142).
711276 711277 711286	5.2.3	n/a	SHALL contain exactly one [1..1] templateId (CONF:2233-711276) such that it SHALL contain exactly one [1..1] @root ="2.16.840.1.113883.10.20.27.2.3" (CONF:2233-711277). SHALL contain exactly one [1..1] @extension ="2017-07-01" (CONF:2233-711286).
711283	5.2.3	n/a	SHALL contain at least one [1..*] entry (CONF:2233-711283) such that it
711284	5.2.3	n/a	SHALL contain exactly one [1..1] Measure Reference and Results - CMS (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.17:2016-11-01) (CONF:2233-711284).
711278 711279 711306	5.2.4	n/a	SHALL contain exactly one [1..1] templateId (CONF:2233-711278) such that it SHALL contain exactly one [1..1] @root ="2.16.840.1.113883.10.20.27.2.6" (CONF:2233-711279). SHALL contain exactly one [1..1] @extension ="2016-11-01" (CONF:2233-711306).
711262 711263	5.3.5	n/a	SHALL contain exactly one [1..1] templateId (CONF:2233-711262) such that it SHALL contain exactly one [1..1] @root ="2.16.840.1.113883.10.20.27.3.24" (CONF:1109-711263)

CONF. #	Section	Base Standard	Changed To
711244 711245	5.3.5	n/a	SHALL contain exactly one [1..1] statusCode (CONF:1109-711244). This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14) (CONF:1109-711245).
711264 711265	5.3.6	n/a	SHALL contain exactly one [1..1] templateId (CONF:1109-711264) such that it SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.26" (CONF:1109-711265).
711243	5.3.6	If this continuous variable measure references an eMeasure, this code element SHALL equal the code element in that eMeasure's measure observation definition (CONF:18256).	This code element SHALL equal the code element in that eMeasure's measure observation definition (CONF:1109-711243).
711241 711242	5.3.6	n/a	SHALL contain exactly one [1..1] statusCode (CONF:1109-711241). This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14) (CONF:1109-711242).
711205	5.3.6	This externalObservation SHALL contain exactly one [1..1] id (CONF:18245). If this reference is to an eMeasure, this id SHALL equal the id in that eMeasure's measure observation definition (CONF:18255).	This externalObservation SHALL contain exactly one [1..1] id (CONF:1109-711205). Note: This is the id in the eMeasure's measure observation definition.
711253 711254 711312	5.3.7	n/a	SHALL contain exactly one [1..1] templateId (CONF:1109-711253) such that it SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.22" (CONF:1109-711254). SHALL contain exactly one [1..1] @extension="2016-11-01" (CONF:2233-711312).

CONF. #	Section	Base Standard	Changed To
711201	5.3.7	SHALL contain exactly one [1..1] Aggregate Count (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3) (CONF:18123).	SHALL contain exactly one [1..1] Aggregate Count - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24) (CONF:1109-711201)
711266 711267 711287	5.3.9	n/a	SHALL contain exactly one [1..1] templateId (CONF:2233-711266) such that it SHALL contain exactly one [1..1] @root ="2.16.840.1.113883.10.20.27.3.16" (CONF:2233-711267). SHALL contain exactly one [1..1] @extension ="2016-11-01" (CONF:2233-711287).
711198	5.3.9	SHALL contain exactly one [1..1] Aggregate Count (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24) (CONF:17620).	SHALL contain exactly one [1..1] Aggregate Count - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24) (CONF:2233-711198)
711180	5.3.9	SHALL contain exactly one [1..1] Reporting Stratum (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.4) (CONF:17920).	SHALL contain exactly one [1..1] Reporting Stratum - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.4) (CONF:2233-711180).
711190	5.3.9	MAY contain zero or more [0..*] entryRelationship (CONF:18136) such that it	SHALL contain at least one [1..*] entryRelationship (CONF:2233-711190) such that it
711181	5.3.9	SHALL contain exactly one [1..1] Sex Supplemental Data Element (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.6:2016-02-01) (CONF:18138).	SHALL contain exactly one [1..1] Sex Supplemental Data Element - CMS (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.21:2016-11-01) (CONF:2233-711181).
711191	5.3.9	MAY contain zero or more [0..*] entryRelationship (CONF:18139) such that it	SHALL contain at least one [1..*] entryRelationship (CONF:2233-711191) such that it
711182	5.3.9	SHALL contain exactly one [1..1] Ethnicity Supplemental Data Element (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.22) (CONF:18149).	SHALL contain exactly one [1..1] Ethnicity Supplemental Data Element - CMS (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.22:2016-11-01) (CONF:2233-711182).
711192	5.3.9	MAY contain zero or more [0..*] entryRelationship (CONF:18140) such that it	SHALL contain at least one [1..*] entryRelationship (CONF:2233-711192) such that it

CONF. #	Section	Base Standard	Changed To
711183	5.3.9	SHALL contain exactly one [1..1] Race Supplemental Data Element (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.19) (CONF:18150).	SHALL contain exactly one [1..1] Race Supplemental Data Element - CMS (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.19:2016-11-01) (CONF:2233-711183).
711193	5.3.9	MAY contain zero or more [0..*] entryRelationship (CONF:18141) such that it	SHALL contain at least one [1..*] entryRelationship (CONF:2233-711193) such that it
711184	5.3.9	SHALL contain exactly one [1..1] Payer Supplemental Data Element (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.9:2016-02-01) (CONF:18151).	SHALL contain exactly one [1..1] Payer Supplemental Data Element - CMS (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.18:2016-11-01) (CONF:2233-711184).
711212	5.3.9	SHALL contain exactly one [1..1] Continuous Variable Measure Value (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.2) (CONF:18153).	SHALL contain exactly one [1..1] Continuous Variable Measure Value - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.26) (CONF:2233-711212).
711233	5.3.9	This externalObservation SHALL contain exactly one [1..1] id (CONF:18241). If this reference is to an eMeasure, this id SHALL equal the id defined in the corresponding eMeasure population criteria section (CONF:18258).	This externalObservation SHALL contain exactly one [1..1] id (CONF:2233-711233). Note: This is the id defined in the corresponding eMeasure population criteria section.
711268 711269 711297	5.3.11	n/a	SHALL contain exactly one [1..1] templateId (CONF:2233-711268) such that it SHALL contain exactly one [1..1] @root ="2.16.840.1.113883.10.20.27.3.17" (CONF:2233-711269). SHALL contain exactly one [1..1] @extension ="2016-11-01" (CONF:2233-711297).
711213	5.3.11	SHALL contain exactly one [1..1] Performance Rate for Proportion Measure (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.14) (CONF:17904).	SHALL contain exactly one [1..1] Performance Rate for Proportion Measure - CMS (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.25:2016-11-01) (CONF:2233-711213).

CONF. #	Section	Base Standard	Changed To
711296	5.3.11	SHALL contain exactly one [1..1] Measure Data (V2) (identifier: urn:hl7ii:2.16.840.1.113883.1 0.20.27.3.5:2016-02-01) (CONF:18426).	SHALL contain exactly one [1..1] Measure Data - CMS (V2) (identifier: urn:hl7ii:2.16.840.1.113883.1 0.20.27.3.16:2016-11-01) (CONF:2233-711296).
711270 711271 711299	5.3.12	n/a	SHALL contain exactly one [1..1] templateId (CONF:2233-711270) such that it SHALL contain exactly one [1..1] @root ="2.16.840.1.113883.10 .20.27.3.18" (CONF:2233- 711271). SHALL contain exactly one [1..1] @extension ="2016-11-01" (CONF:2233-711299).
711196 711230	5.3.12	n/a	SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:2233-711196). This value SHALL contain exactly one [1..1] translation (CONF:2233-711230).
711231	5.3.12	n/a	This translation SHALL contain exactly one [1..1] @code , which SHALL be selected from ValueSet CMS Payer Groupings 2.16.840.1.113883.3.249.14.10 2 (CONF:2233-711231).
711229	5.3.12	n/a	This value SHALL contain exactly one [1..1] @nullFlavor ="OTH" (CONF:2233-711229).
711199	5.3.12	SHALL contain exactly one [1..1] Aggregate Count (identifier: urn:oid:2.16.840.1.113883.10. 20.27.3.3) (CONF:18111).	SHALL contain exactly one [1..1] Aggregate Count - CMS (identifier: urn:oid:2.16.840.1.113883.10. 20.27.3.24) (CONF:2233-711199).

CONF. #	Section	Base Standard	Changed To
711255 711256 711320	5.3.13.1	n/a	SHALL contain exactly one [1..1] templateId (CONF:2233-711255) such that it SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.25" (CONF:2233-711256). SHALL contain exactly one [1..1] @extension="2016-11-01" (CONF:2233-711320).
711294 711295	5.3.13.1	n/a	SHALL contain exactly one [1..1] value with @xsi:type="REAL" (CONF:2233-21307). The value, if present, SHALL be greater than or equal to 0 and less than or equal to 1 (CONF:2233-711294). The value, if present, SHALL contain no more than 6 digits to the right of the decimal (CONF:2233-711295).
711203	5.3.13.1	MAY contain zero or one [0..1] reference (CONF:19651).	SHALL contain exactly one [1..1] reference (CONF:2233-711203).
711204	5.3.13.1	The externalObservationID contains the ID of the numerator in the referenced eMeasure. This externalObservation SHALL contain exactly one [1..1] id (CONF:19655).	This externalObservation SHALL contain exactly one [1..1] id (CONF:2233-711204).
711257 711258 711315	5.3.14	n/a	SHALL contain exactly one [1..1] templateId (CONF:2233-711257) such that it SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.19" (CONF:2233-711258). SHALL contain exactly one [1..1] @extension="2016-11-01" (CONF:2233-711315).
711200	5.3.14	SHALL contain exactly one [1..1] Aggregate Count (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3) (CONF:18117).	SHALL contain exactly one [1..1] Aggregate Count - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24) (CONF:2233-711200).

CONF. #	Section	Base Standard	Changed To
711274 711275	5.3.16	n/a	SHALL contain exactly one [1..1] templateId (CONF:2233-711274) such that it SHALL contain exactly one [1..1] @root ="2.16.840.1.113883.10.20.27.3.20" (CONF:1109-711275).
711232	5.3.16	If this Reporting Stratum references an eMeasure, and the value of externalObservation/id equals the reference stratification id defined in the eMeasure, then this value SHALL be the same as the contents of the observation/code element in the eMeasure that is defined along with the observation/id element (CONF:18259).	This value SHALL be the same as the contents of the observation/code element in the referenced eMeasure (e.g., 21112-8 'Birth date') (CONF:1109-711232).
711197	5.3.16	SHALL contain exactly one [1..1] Aggregate Count (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3) (CONF:17584).	SHALL contain exactly one [1..1] Aggregate Count - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24) (CONF:1109-711197).
711211	5.3.16	SHALL contain exactly one [1..1] Continuous Variable Measure Value (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.2) (CONF:19513).	SHALL contain exactly one [1..1] Continuous Variable Measure Value - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.26) (CONF:1109-711211).
711259 711260 711301	5.3.17	n/a	SHALL contain exactly one [1..1] templateId (CONF:2233-711259) such that it SHALL contain exactly one [1..1] @root ="2.16.840.1.113883.10.20.27.3.21" (CONF:2233-711260). SHALL contain exactly one [1..1] @extension ="2016-11-01" (CONF:2233-711301).
711202	5.3.17	SHALL contain exactly one [1..1] Aggregate Count (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3) (CONF:18129).	SHALL contain exactly one [1..1] Aggregate Count - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24) (CONF:2233-711202).

12 Change Log – Changes from the 2017 CMS QRDA Implementation Guide

This appendix summarizes the changes made in this 2018 CMS QRDA Eligible Clinicians and EPs Implementation Guide since the release of 2017 CMS QRDA Implementation Guide.

Version 1.1 (March 2018) Updates:

- Added Table 52 for the ACI_IACEHRT_1 identifier .

Version 2 (July 2018) Updates:

- Renaming of the Merit-based Incentive Payment System (MIPS) performance category Advancing Care Information (ACI) to Promoting Interoperability (PI).
- Changes to performance period reporting:
 - The performance period under MIPS can be reported at either of the following levels:
 - The individual measure level for the MIPS quality measures and at the individual activity level for the MIPS improvement activities (IA), as defined by CMS, or
 - The performance category level for Quality and IA performance categories, as previously specified in the 2018 CMS QRDA III IG.
 - Performance period reporting for PI will remain at the performance category level only.
 - Performance period reporting for Comprehensive Primary Care Plus (CPC+) for the Quality performance category remains at the category level only.
- New CMS program name code created “MIPS_VIRTUALGROUP” to support MIPS virtual group reporting.
- Eight new PI measure identifiers have been developed that indicate active engagement with more than one registries.
 - The new measure identifiers consist of an existing measure identifier appended with “_MULTI”. For example, the new measure identifier “PI_PHCDRR_1_MULTI” indicates immunization registry reporting for multiple registry engagement.
- The 2015 Edition (c)(4) filter certification criterion (45 CFR 170.315(c)(4)) is no longer a requirement for CPC+ reporting. However, practices must continue to report eCQM data at the CPC+ practice site level [practice site location, TIN(s)/NPI(s)].

Table 59: Changes Made to the 2018 CMS Eligible Clinicians and EPs QRDA IG from 2017 CMS QRDA IG

Section Heading	2018 CMS QRDA-III Eligible Clinicians and EPs IG	2017 CMS QRDA-III Eligible Clinicians and EPs IG
4 QRDA Category III Submission Rules	Language is updated to reflect the requirement updates for the 2018 performance period.	Submission rules for the 2017 performance period.
5 QRDA Category III Validation	Added new section 5.4 Templates Updates for MIPS Only (Updated July 2018)	n/a

Section Heading	2018 CMS QRDA-III Eligible Clinicians and EPs IG	2017 CMS QRDA-III Eligible Clinicians and EPs IG
6 eCQM Specifications for Eligible Clinicians and Eligible Professionals 2018 UUID List	Updated the UUID list based on the eCQM specifications for Eligible Clinicians and Eligible Professionals for the 2018 performance period	UUID list based on the eCQM specifications for Eligible Clinicians and Eligible Professionals for the 2017 performance period
7 Measure Identifiers Table 48	Updated the Improvement Activity Measure Identifiers for the 2018 performance period	Improvement Activity Measure Identifiers for the 2017 performance period
7 Measure Identifiers Table 49	PI_LVPP_1: *ePrescribing Exclusion PI_LVOTC_1: * Send a Summary of Care Exclusion PI_PHCDRR_2: Syndromic Surveillance Reporting PI_PHCDRR_3: Electronic Case Reporting PI_PHCDRR_4: Public Health Registry Reporting PI_PHCDRR_5: Clinical Data Registry Reporting	ACI_LVPP_1: *Proposed ePrescribing Exclusion ACI_LVOTC_1: *Proposed Request/Accept Summary of Care Exclusion ACI_PHCDRR_2: (Optional) Syndromic Surveillance Reporting ACI_PHCDRR_3: (Optional) Electronic Case Reporting ACI_PHCDRR_4: (Optional) Public Health Registry Reporting ACI_PHCDRR_5: (Optional) Clinical Data Registry Reporting
7 Measure Identifiers Table 49	PI_PHCDRR_1_MULTI: Immunization Registry Reporting for Multiple Registry Engagement PI_PHCDRR_2_MULTI: Syndromic Surveillance Reporting for Multiple Registry Engagement PI_PHCDRR_3_MULTI: Electronic Case Reporting for Multiple Registry Engagement PI_PHCDRR_4_MULTI: Public Health Registry Reporting for Multiple Registry Engagement PI_PHCDRR_5_MULTI: Clinical Data Registry Reporting for Multiple Registry Engagement	n/a
7 Measure Identifiers Table 50	PI_TRANS_LVPP_1: *e-Prescribing Exclusion PI_TRANS_LVOTC_1: * Health Information Exchange Exclusion	ACI_TRANS_LVPP_1: *Proposed e-Prescribing Exclusion ACI_TRANS_LVOTC_1: *Proposed Health Information Exchange Exclusion

Section Heading	2018 CMS QRDA-III Eligible Clinicians and EPs IG	2017 CMS QRDA-III Eligible Clinicians and EPs IG
7 Measure Identifiers Table 50	PI_TRANS_PHCDRR_1_MULTI: Immunization Registry Reporting for Multiple Registry Engagement PI_TRANS_PHCDRR_2_MULTI: Syndromic Surveillance Reporting for Multiple Registry Engagement PI_TRANS_PHCDRR_3_MULTI: Electronic Case Reporting for Multiple Registry Engagement	n/a
7 Measure Identifiers Table 52	Added new table for Promoting InteroperabilityPromoting Interoperability Improvement Activities Bonus Identifier	n/a (ACI_IACEHRT_1 is available for use)

13 Acronyms

This section describes acronyms used in this guide.

Acronym	Literal Translation
ASKU	Asked, but not known
CDA	Clinical Document Architecture
CMS	Centers for Medicare & Medicaid Services
CONF	conformance
CPC+	Comprehensive Primary Care Plus
EP	Eligible Professional
eCQI	electronic clinical quality improvement
eCQM	electronic Clinical Quality Measure
EHR	electronic health record
HL7	Health Level Seven
HL7 V3	Health Level 7 Version 3
HQMF	Health Quality Measures Format
ID	identifier
IHTSDO	International Health Terminology Standard Development Organization
IP	initial population
LOINC	Logical Observation Identifiers Names and Codes
MIPS	Merit-Based Incentive Payment System
n/a	not applicable
NA	Not applicable
NLM	National Library of Medicine
NPI	National Provider Identification Number
OID	Object Identifier
ONC	Office of the National Coordinator for Health Information Technology
PHDSC	Public Health Data Standards Consortium
QDM	Quality Data Model
QPP	Quality Payment Program

Acronym	Literal Translation
QRDA	Quality Reporting Data Architecture
QRDA-III	Quality Reporting Data Architecture Category III
SNOMED CT	Systematized Nomenclature of Medicine, Clinical Terms
STU	Standard for Trial Use
TIN	Taxpayer Identification Number
UNK	Unknown
UTC	Coordinated Universal Time
UUID	Universally Unique Identifier
VSAC	Value Set Authority Center
XML	Extensible Markup Language

14 Glossary

Term	Definition
Electronic health record (EHR)	Electronic records of patient health information gathered and/or generated in any care delivery setting. This information includes patient demographics, progress notes, medications, vital signs, past medical history, immunizations, laboratory data, and radiology reports. This provides the ability to pass information from care point to care point, providing the ability for quality health management by physicians.
Merit-Based Incentive Payment System (MIPS)	A quality reporting system that includes an incentive payment for eligible clinicians who satisfactorily report data on quality measures for covered clinician services provided during the specified program year.
XML Path Language (XPath)	This notation provides a mechanism that will be familiar to developers for identifying parts of an XML document. XPath syntax selects nodes from an XML document using a path containing the context of the node(s). The path is constructed from node names and attribute names (prefixed by an '@') and concatenated with a '/' symbol.

15 References

Comprehensive Primary Care Plus (CPC+).

<https://innovation.cms.gov/initiatives/comprehensive-primary-care-plus>

eCQI Resource Center. <https://ecqi.healthit.gov/>

HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture, Category III, Release 1, Draft Standard for Trial Use, Release 2.1, 2017

http://www.hl7.org/implement/standards/product_brief.cfm?product_id=286

ONC, Electronic Clinical Quality Measure issue reporting system.

<https://oncprojecttracking.healthit.gov/>

U.S. National Library of Medicine, Value Set Authority Center. <https://vsac.nlm.nih.gov>

Quality Payment Program: <https://qpp.cms.gov>