



**CMS Implementation Guide for
Quality Reporting Document Architecture
Category III
Eligible Clinicians Programs
Version 0.1
Implementation Guide for 2017**

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Table of Contents

| | | |
|----------|---|-----------|
| 1 | Introduction | 8 |
| 1.1 | Overview | 8 |
| 1.2 | Organization of the Guide..... | 8 |
| 2 | Conformance Conventions Used in This Guide..... | 9 |
| 2.1 | Conformance Verbs (Keywords) | 9 |
| 2.2 | Cardinality | 9 |
| 2.3 | Null Flavor | 10 |
| 3 | Overview | 11 |
| 3.1 | Background | 11 |
| 3.2 | How to Read This QRDA-III Guide | 12 |
| 4 | QRDA Category III Submission Rules | 13 |
| 4.1 | Comprehensive Primary Care Plus (CPC+) Submissions | 13 |
| 4.2 | Merit-Based Incentive Payments (MIPS) Submissions..... | 14 |
| 4.3 | Identifiers | 14 |
| 4.4 | Succession Management | 14 |
| 4.4.1 | Final Action Processing used in Succession Management | 14 |
| 4.4.2 | Final Action Processing Rules for MIPS | 15 |
| 4.4.3 | Final Action Processing Rules for CPC+ | 15 |
| 4.4.4 | Program Identifiers Used in Succession Management | 15 |
| 4.5 | Time Zone..... | 15 |
| 4.6 | Templates Versioning and Validations..... | 16 |
| 5 | QRDA Category III Validation | 17 |
| 5.1 | Document-Level Template: QRDA Category III Report - CMS (V2)..... | 17 |
| 5.1.1 | recordTarget..... | 18 |
| 5.1.2 | author..... | 18 |
| 5.1.3 | custodian | 19 |
| 5.1.4 | informationRecipient | 20 |
| 5.1.5 | legalAuthenticator..... | 21 |
| 5.1.6 | participant is Device | 22 |
| 5.1.7 | participant is Location | 23 |
| 5.1.8 | documentationOf | 24 |
| 5.1.9 | authorization | 26 |
| 5.1.10 | component..... | 27 |
| 5.2 | Section-Level Templates | 28 |
| 5.2.1 | Measure Section..... | 28 |
| 5.2.2 | QRDA Category III Reporting Parameters Section - CMS (V2) | 33 |
| 5.3 | Entry-Level Templates..... | 35 |
| 5.3.1 | Advancing Care Information Measure Performed Measure Reference and Results | 35 |
| 5.3.2 | Advancing Care Information Numerator Denominator Type Measure Reference and Results | 38 |
| 5.3.3 | Advancing Care Information Numerator Denominator Type Measure Denominator Data | 41 |
| 5.3.4 | Advancing Care Information Numerator Denominator Type Measure Numerator Data | 44 |
| 5.3.5 | Aggregate Count - CMS | 46 |
| 5.3.6 | Continuous Variable Measure Value - CMS..... | 48 |
| 5.3.7 | Ethnicity Supplemental Data Element – CMS (V2) | 50 |
| 5.3.8 | Improvement Activity Performed Measure Reference and Results..... | 53 |
| 5.3.9 | Measure Data - CMS (V2) | 55 |
| 5.3.10 | Measure Performed | 61 |
| 5.3.11 | Measure Reference and Results- CMS (V2) | 62 |

| | | |
|----------------------|--|-------------------------------------|
| 5.3.12 | Payer Supplemental Data Element - CMS (V2) | 66 |
| 5.3.13 | Performance Rate | 70 |
| 5.3.14 | Race Supplemental Data Element - CMS (V2) | 75 |
| 5.3.15 | Reporting Parameters Act - CMS (V2) | 77 |
| 5.3.16 | Reporting Stratum - CMS | 79 |
| 5.3.17 | Sex Supplemental Data Element - CMS (V2) | 82 |
| 6 | eCQM Specifications for Eligible Clinicians April 2016 UUID List | 86 |
| 7 | Measure Identifiers | 92 |
| APPENDIX..... | | 105 |
| 8 | Troubleshooting and Support | 105 |
| 8.1 | Resources | 105 |
| 8.2 | Support..... | 105 |
| 8.3 | Errata or Enhancement Requests | 105 |
| 9 | Null Flavor Validation Rules for Data Types | 106 |
| 10 | NPI and TIN Validation Rules | 107 |
| 11 | CMS QRDA-III Implementation Guide Changes to QRDA-III DSTU R2 Base Standard.. | 108 |
| 12 | Change Log for 2017 CMS QRDA Eligible Clinician Implementation Guide from the 2016 CMS QRDA Implementation Guide..... | 120 |
| 13 | Acronyms..... | Error! Bookmark not defined. |
| 14 | Glossary | 132 |
| 15 | References | 133 |

Table of Figures

| | |
|---|----|
| Figure 1: Constraints Format – only one allowed | 9 |
| Figure 2: Constraints Format – only one like this allowed..... | 9 |
| Figure 3: nullFlavor Example..... | 10 |
| Figure 4: QRDA-III Report Structure Example..... | 12 |
| Figure 5: recordTarget Example, QRDA Category III Report – CMS (V2) | 18 |
| Figure 6: Device Author Example..... | 19 |
| Figure 7: Person Author Example | 19 |
| Figure 8: Custodian Example | 20 |
| Figure 9: informationRecipient Example, QRDA Category III Report - CMS (V2) | 21 |
| Figure 10: legalAuthenticator Example..... | 22 |
| Figure 11: Device Participant Example | 23 |
| Figure 12: Location Participant Example..... | 24 |
| Figure 13: documentationOf Example | 26 |
| Figure 14: Authorization Example | 27 |
| Figure 15: structuredBody Example | 28 |
| Figure 16: Advancing Care Information Section Example | 30 |
| Figure 17: Improvement Activity Section Example | 31 |
| Figure 18: QRDA-III Measure Section – CMS (V2) Example..... | 33 |
| Figure 19: QRDA-III Reporting Parameters Section - CMS Example | 35 |
| Figure 20: Advancing Care Information Measure Performed Measure Reference and Results Example..... | 37 |
| Figure 21: Advancing Care Information Numerator Denominator Type Measure Reference and Results Example..... | 41 |
| Figure 22: Advancing Care Information Numerator Denominator Type Measure Denominator Data Example | 44 |
| Figure 23: Advancing Care Information Numerator Denominator Type Measure Numerator Data Example..... | 46 |
| Figure 24: Aggregate Count - CMS Example | 48 |
| Figure 25: Continuous Variable Measure Value - CMS Example | 50 |
| Figure 26: Ethnicity Supplemental Data Element - CMS (V2) Example | 53 |
| Figure 27: Improvement Activity Performed Reference and Results Example | 55 |
| Figure 28: Measure Data - CMS (V2) Example | 60 |
| Figure 29: Measure Performed Example..... | 62 |
| Figure 30: Measure Reference and Results - CMS (V2) Example..... | 66 |
| Figure 31: Payer Supplemental Data Element - CMS (V2) Example | 69 |
| Figure 32: Performance Rate Example | 71 |
| Figure 33: Performance Rate for Proportion Measure - CMS (V2) Example..... | 74 |

| | |
|--|----|
| Figure 34: Race Supplemental Data Element – CMS (V2) Example | 77 |
| Figure 35: Reporting Parameters Act - CMS (V2) Example | 79 |
| Figure 36: Reporting Stratum- CMS Example | 82 |
| Figure 37: Sex Supplemental Data Element - CMS (V2) Example | 85 |

Table of Tables

| | |
|---|----|
| Table 1: Time Zone Validation Rule | 16 |
| Table 2: QRDA Category III Report - CMS (V2) Contexts | 17 |
| Table 3: QRDA-III CMS Program Name..... | 21 |
| Table 4: Measure Section Contexts | 28 |
| Table 5: Advancing Care Information Section Contexts | 29 |
| Table 6: Improvement Activity Section Contexts | 30 |
| Table 7: QRDA Category III Measure Section - CMS (V2) Contexts | 31 |
| Table 8: QRDA Category III Reporting Parameters Section - CMS (V2) Contexts..... | 33 |
| Table 9: Advancing Care information Measure Performed Measure Reference and Results Contexts..... | 35 |
| Table 10: Advancing Care Information Measure Performed Measure Reference and Results Constraints Overview | 36 |
| Table 11: Advancing Care information Numerator Denominator Type Measure Reference and Results Contexts..... | 38 |
| Table 12: Advancing Care Information Numerator Denominator Type Measure Reference and Results Constraints Overview | 38 |
| Table 13: Advancing Care Information Numerator Denominator Type Measure Denominator Data Contexts | 41 |
| Table 14: Advancing Care information Numerator Denominator Type Measure Denominator Data Constraints Overview..... | 42 |
| Table 15: Advancing Care Information Numerator Denominator Type Measure Numerator Data Contexts..... | 44 |
| Table 16: Advancing Care Information Numerator Denominator Type Measure Numerator Data Constraints Overview | 44 |
| Table 17: Aggregate Count - CMS Contexts | 46 |
| Table 18: Aggregate Count - CMS Constraints Overview..... | 47 |
| Table 19: Continuous Variable Measure Value - CMS Contexts | 48 |
| Table 20: Continuous Variable Measure Value - CMS Constraints Overview | 49 |
| Table 21: Ethnicity Supplemental Data Element - CMS Contexts..... | 50 |
| Table 22: Ethnicity Supplemental Data Element - CMS (V2) Constraints Overview | 51 |
| Table 23: Improvement Activity Performed Measure Reference and Results Contexts | 53 |
| Table 24: Improvement Activity Performed Measure Reference and Results Constraints Overview..... | 53 |
| Table 25: Measure Data - CMS(V2) Contexts | 55 |
| Table 26: Measure Data - CMS (V2) Constraints Overview..... | 56 |
| Table 27: Measure Performed Contexts..... | 61 |
| Table 28: Measure Performed Constraints Overview | 61 |
| Table 29: Measure Reference and Results - CMS (V3) Contexts..... | 62 |
| Table 30: Measure Reference and Results - CMS (V3) Constraints Overview | 63 |

| | |
|---|-----|
| Table 31: Payer Supplemental Data Element (V2) – CMS Contexts | 66 |
| Table 32: Payer Supplemental Data Element - CMS (V2) Constraints Overview..... | 67 |
| Table 33: CMS Payer Groupings | 69 |
| Table 34: Performance Rate Contexts | 70 |
| Table 35: Performance Rate Constraints Overview..... | 70 |
| Table 36: Performance Rate for Proportion Measure – CMS (V2) Contexts..... | 71 |
| Table 37: Performance Rate for Proportion Measure - CMS (V2) Constraints Overview | 72 |
| Table 38: Race Supplemental Data Element – CMS (V2) Contexts | 75 |
| Table 39: Race Supplemental Data Element - CMS Constraints Overview | 75 |
| Table 40: Reporting Parameters Act - CMS (V2) Contexts..... | 77 |
| Table 41: Reporting Parameters Act - CMS (V2) Constraints Overview | 78 |
| Table 42: Reporting Stratum – CMS Contexts | 79 |
| Table 43: Reporting Stratum – CMS Constraints Overview | 80 |
| Table 44: Sex Supplemental Data Element - CMS (V2) Contexts | 82 |
| Table 45: Sex Supplemental Data Element - CMS (V2) Constraints Overview..... | 83 |
| Table 46: UUID List for eCQM Specifications Eligible Professionals April 2016 | 86 |
| Table 47: Improvement Activities Identifiers | 92 |
| Table 48: Advancing Care Information Objectives and Measures Identifiers | 103 |
| Table 49: 2017 Advancing Care Information Transition Objectives and Measures (for 2017 performance period only) Identifiers | 103 |
| Table 50: Support Contact Information..... | 105 |
| Table 51: Errata or Enhancement Request Location..... | 105 |
| Table 52: Null Flavor Validation Rules for Data Types | 106 |
| Table 53: NPI Validation Rules | 107 |
| Table 54: TIN Validation Rules..... | 107 |
| Table 55: Changes Made to the QRDA-III Base Standard | 108 |
| Table 56: Changes Made for 2017 CMS Eligible Clinician QRDA IG from 2016 CMS QRDA IG Part B..... | 120 |

QRDA-III STU R2 CMS Implementation Guide for Eligible Clinician 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 guides to the *HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture, Category III, STU Release 2¹* for the 2017 reporting year. This HL7 standard is referred to as “QRDA-III”.

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 Clinician 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

- Chapters 8-15 provide references and resources, including a list of all changes made to the QRDA Category III base standard to produce the CMS Implementation Guide

¹ http://www.hl7.org/implement/standards/product_brief.cfm?product_id=286

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 the following figure, 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 the next figure, 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 measurable. 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 above 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

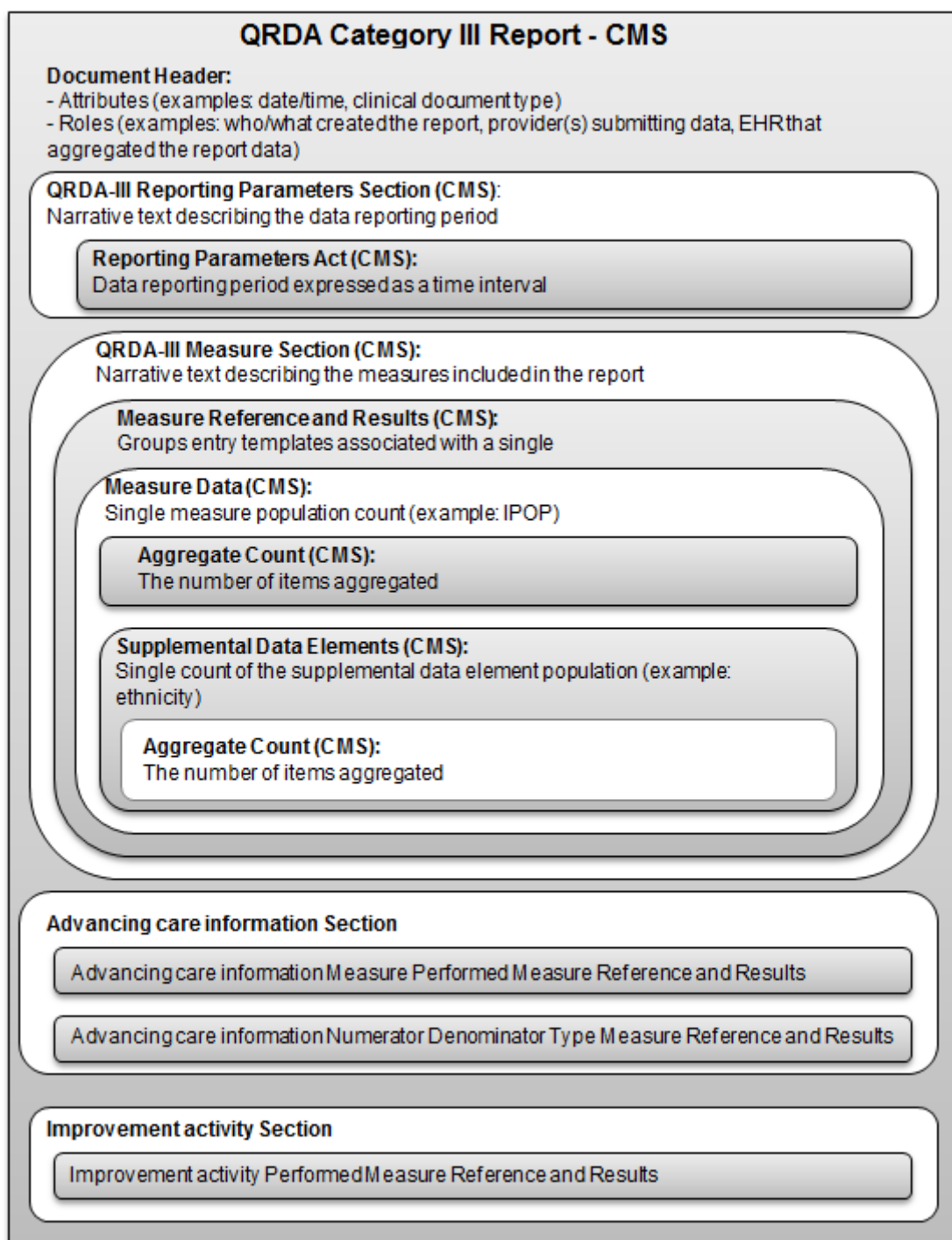
3.1 Background

This guide is a CMS Quality Reporting Document Architecture Category III (QRDA-III) implementation guide to the *HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture, Category III, STU Release 2* (referred to as the *QRDA-III Implementation Guide* in this guide). Templates defined in this implementation guide are conformant with the *QRDA-III Implementation Guide*. CMS Eligible Clinician 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 advancing care information and improvement activity measures. The structure of a QRDA-III report is depicted in the following 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. Some of the conformance statements in the *HL7 CDA Release 2: QRDA Category III (QRDA-III), DSTU Release 2* have been further constrained to meet the specific requirements from these CMS eligible clinician programs. This guide shows all parent template definitions from the base *QRDA-III Implementation Guide* 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 [QRDA-III Validation](#) of this implementation guide.

4.1 Comprehensive Primary Care Plus (CPC+) Submissions

For program year 2017, 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 2016 annual update, for all of the electronic clinical quality measures in the CPC+ measure set.

By January 1, 2018, HIT products certified for quality measurement reporting must be able to filter eCQM results based on certain filters present in the system. Those filters are specified in the ONC regulation² and referred to collectively as C4. For CPC+, the following composite C4 filter within Cypress should be used: *NPI, TIN & Provider Location*. Information about each of the fields within the composite filter is below.

- **Provider Location** – For CPC+, this is the CPC+ practice site address, which is the physical address (the address should include suite number, etc.) of the CPC+ practice site
- **Taxpayer Identification Number (TIN)** - must be the TIN(s) used by the CPC+ practice site for the CPC+ practice site reporting
- **National Provider Identifier (NPI)** - must only include those that are participating in CPC+ at the given CPC+ practice site address

In the future, other filters may become available within Cypress that are applicable for CPC+ at which time further clarification will be provided.

All measures must be reported at the CPC+ practice site level. Practice site level reporting includes all patients (includes all payers and 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 (IP)/Denominator. Each CPC+ practice site submitting QRDA-III files for the 2017 Performance Period must provide at least the minimum number³ 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 April 2016 versions of eligible clinician eCQMs provided in the [CMS eCQM Library](#).

The Performance Period for the CPC+ program begins on January 1, 2017 and ends on December 31, 2017.

² 2015 Edition Health IT Certification Criteria final rule: <https://www.federalregister.gov/articles/2015/10/16/2015-25597/2015-edition-health-information-technology-health-it-certification-criteria-2015-edition-base>

³ 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>.

4.2 Merit-Based Incentive Payments (MIPS) Submissions

MIPS QRDA-III submissions must contain at least one measure submitted for one of the three possible sections (Quality, advancing care information, or improvement activity). In order for the eligible clinician to obtain full credit for the Quality Performance Category, the eligible clinician must submit 6 measures. Please refer to <https://qpp.cms.gov/> for the advancing care information and improvement activity scoring rules.

For MIPS Group Practice Reporting Option (GPRO) QRDA-III submissions, a "group practice" consists of a physician group practice defined by a single TIN with two or more individual eligible clinicians who have reassigned billing rights to the TIN. If the eligible clinician also reports through a different TIN that is not participating as a GPRO, then the eligible clinician may also report individually through that alternate TIN.

For the MIPS individual eligible clinician reporting, eCQM populations include all Medicare patients seen by the eligible clinician during the reporting period, which is one full year (January 1, 2017 - December 31, 2017). For MIPS GPRO reporting, eCQM populations include all unique Medicare patients from all practice sites in the group practice seen by the group during the reporting period (January 1, 2017 - December 31, 2017). Data for both individual eligible clinicians and GPROs is then submitted January 1, 2017 through March 31, 2017.

4.3 Identifiers

For all CMS eligible clinician 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 clinician 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)
 - Optional for MIPS GPRO reporting
- Tax Identification Number (TIN)
 - When a provider has more than one TIN, the provider is recorded for each NPI/TIN combination

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). The document that replaces a previous document will have a replacement relationship and will have a new unique QRDA-III document/id. The document/id of the previous QRDA-III will be referenced in the current document's `/ClinicalDocument/relatedDocument/parentDocument/id`.

4.4.1 Final Action Processing used in Succession Management

Currently, references to the 'id' of a `parentDocument` are not consistently used. The MIPS receiving system at CMS uses Final Action Processing to reliably determine the current version

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 out of earlier QRDA-III submissions. Therefore submitters should ensure all QRDA-III reports are complete data re-submissions.

4.4.2 Final Action Processing Rules for MIPS

For group practice 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 (except for the CPC+ program), 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 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 will not be used 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 satisfactory 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, 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, 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 - CMS (V2) template (CONF: 2233-711292 and CONF: 2233-711293) will not be validated using this time zone validation rule:

- act[@templateId="2.16.840.1.113883.10.20.17.3.8.1"][@extension="2016-11-01"]/effectiveTime/low
- act[@templateId="2.16.840.1.113883.10.20.17.3.8.1"][@extension="2016-11-01"]/effectiveTime/high

4.6 Templates Versioning and Validations

Both the base HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture Category III, STU Release 2 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 QRDA-III STU R2. For example, in QRDA-III STU R2, the previous Measure Reference and Results template is now Measure Reference and Results (V2), 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
- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.27.3.1" (CONF:2226-17909).
 - b. **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 and the 2017 CMS IG must be used for 2017 CMS QRDA-III submissions. If wrong version of a template were used for QRDA-III submissions, files will be rejected by the CMS receiving system. Submitters should ensure correct template versions be used and aware of the consequences if wrong versions are used.

5 QRDA Category III Validation

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

[ClinicalDocument: identifier
urn:hl7ii:2.16.840.1.113883.10.20.27.1.2:2016-11-01 (open)]

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

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

This template describes constraints that apply to the QRDA Document Category III Report for CMS Eligible Clinicians 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 (V3) template** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.1.1:2016-09-01).
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).
3. **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).
4. **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="2016-09-01" (CONF:2226-21168).
5. **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="2016-11-01" (CONF:2233-711305).
6. **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).
7. **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).
8. **SHALL** contain exactly one [1..1] title (CONF:2233-17211).
9. **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).
10. **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).
11. **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).

12. **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.

13. **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="20160311061231-0500"/>
  <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="20160312114411-0500"/>
  <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.

- 14. **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 clinician program the report is being submitted to.

- 15. **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).

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 | CMS Program | 2.16.840.1.113883.3.249.7 | MIPS |

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.

16. **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.

17. **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.

18. **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 ARM Entity Identifier.
 2. This `id` **SHALL** contain exactly one [1..1] `@extension` (CONF:2233-711156).
Note: This is the CPCPLUS ARM 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. A `serviceEvent/performer` element must be present for each performer reporting data to a quality organization.

19. **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).
 - ii. This `serviceEvent` **SHALL** contain at least one [1..*] `performer` (CONF:2233-18173).

Note: All providers seeking credit for CMS program reporting are listed as performers.

 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 the Group Practice Reporting Option (GPRO). For GPRO, `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 GPRO 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. **SHALL** contain exactly one [1..1] `@extension` (CONF:2233-711170).
Note: This is the provider's NPI, it is only present when this is not MIPS GPRO 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.
 - ii. 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,
      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 clinician has 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.

20. **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 clinician.
 - 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 QRDA Category III document contains a Reporting Parameters Section and also must contain at least a QRDA Category III Measure Section, an Improvement Activity Section, or an Advancing Care Information Section.

21. **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** contain exactly one [1..1] **component** (CONF:2233-17281) such that it
 1. **SHALL** contain exactly one [1..1] [QRDA Category III Reporting Parameters Section - CMS \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.6:2016-11-01) (CONF:2233-711141).
 - 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:2.16.840.1.113883.10.20.27.2.3:2016-11-01) (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](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.4:2016-09-01) (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](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.5:2016-09-01) (CONF:2233-21318).
 - v. This **structuredBody** **SHALL** contain at least a QRDA Category III Measure Section - CMS (V2), or an Improvement Activity Section, or an Advancing Care Information Section (CONF:2233-711311).

Figure 15: structuredBody Example

```

<component>
  <structuredBody>
    <component>
      <!--QRDA Category III Reporting Parameters Section - CMS (V2)-->
      <section>
        ...
        <title>Reporting Parameters</title>
        ...
      </section>
    </component>
    <component>
      <!-- QRDA Category III Measure Section - CMS (V2)-->
      <section>
        ...
        <title>Measure Section</title>
        ...
      </section>
    </component>
    <component>
      <!-- Improvement activity Section -->
      <section>
        ...
        <title>Measure Section</title>
        ...
      </section>
    </component>
    <component>
      <!--Advancing care information Section -->
      <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

- 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).
 - This code **SHALL** contain exactly one [1..1] @code="55186-1" Measure Section (CONF:67-19230).
 - 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).
 - 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 Advancing Care Information Section

[section: identifier
urn:hl7ii:2.16.840.1.113883.10.20.27.2.5:2016-09-01 (open)]

Table 5: Advancing Care Information Section Contexts

| Contained By | Contains |
|--|---|
| QRDA Category III Report - CMS (V2) (optional) | Advancing Care Information Measure Performed Measure Reference and Results Advancing Care Information Numerator Denominator Type Measure Reference and Results |

This section references the advancing care information 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="2016-09-01" (CONF:3259-21395).
- 3. **MAY** contain zero or more [0..*] entry (CONF:3259-21380) such that it
 - a. **SHALL** contain exactly one [1..1] [Advancing Care Information Numerator Denominator Type Measure Reference and Results](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.28:2016-09-01) (CONF:3259-21381).
- 4. **MAY** contain zero or more [0..*] entry (CONF:3259-21315) such that it
 - a. **SHALL** contain exactly one [1..1] [Advancing Care Information 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 at least one [1..*] entry (CONF:3259-21438).
 - a. This advancing care information Section **SHALL** contain at least an Advancing Care Information Numerator Denominator Type Measure Reference and Results or an Advancing Care Information Measure Performed Reference and Results (CONF:3259-21439).

Figure 16: Advancing Care Information Section Example

```

<component>
  <!-- Measure Section -->
  <templateId root="2.16.840.1.113883.10.20.24.2.2"/>
  <!-- Advancing Care Information Section templateId -->
  <templateId root="2.16.840.1.113883.10.20.27.2.5"
extension="2016-09-01"/>
  <code code="55186-1" codeSystem="2.16.840.1.113883.6.1"
displayName="Measure Section"/>
  <title>Measure Section</title>
  <text>
  ...
</text>
  <entry>
    <organizer>
      <!-- Advancing Care Information Numerator Denominator Type
Measure Reference and Results -->
      ...

      </organizer>
    </entry>
    <entry>
      <organizer>
        <!-- Advancing Care Information Measure Performed Measure
Reference and Result -->
        ...

        </organizer>
      </entry>
    </component>

```

5.2.1.2 Improvement Activity Section

[section: identifier
urn:hl7ii:2.16.840.1.113883.10.20.27.2.4:2016-09-01 (open)]

Table 6: Improvement Activity Section Contexts

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

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

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="2016-09-01"` (CONF:3259-21398).
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).

Figure 17: Improvement Activity Section 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="2016-09-01"/>
    <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>
  </section>
</component>

```

5.2.1.3 QRDA Category III Measure Section - CMS (V2)

[section: identifier
urn:hl7ii:2.16.840.1.113883.10.20.27.2.3:2016-11-01 (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) |

This section references the measure(s) being reported. For each reported measure, 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.

1. **Conforms to QRDA Category III Measure Section (V3) template** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.1:2016-09-01).
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="2016-11-01"** (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 (V3) `templateId`
 - b. **SHALL** contain exactly one [1..1] `@extension="2016-09-01"` (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).

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 (V3) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.2.1"
extension="2016-09-01"/>
  <!-- QRDA Category III Measure Section - CMS (V2) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.2.3"
extension="2016-11-01"/>
  <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>eMeasure Title</th>
          <th>Version neutral identifier</th>
          <th>Version specific identifier</th>
        </tr>
      </thead>
      <tbody>
        <tr>
          <td>Controlling High Blood Pressure</td>
          <td>abdc37cc-bac6-4156-9b91-d1be2c8b7268</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>

```

5.2.2 QRDA Category III Reporting Parameters Section - CMS (V2)

```

[section: identifier
urn:hl7ii:2.16.840.1.113883.10.20.27.2.6:2016-11-01 (open)]

```

Table 8: QRDA Category III Reporting Parameters Section - CMS (V2) Contexts

| Contained By | Contains |
|--|---|
| QRDA Category III Report - CMS (V2) (required) | Reporting Parameters Act - CMS (V2) |

The QRDA Category III Reporting Parameters Section provides information about the reporting time interval, and may contain other information that provides context for the data being reported. This template adds an optional Service Encounter template.

The QRDA Category III report contains data covering a single time period represented by the reporting parameters act. The reporting parameter dates are equivalent to the performance period dates for the data being aggregated. For Program Year 2017, the reporting parameter start date **SHALL** be "20170101" (i.e. 01/01/2017), and the reporting parameter end date **SHALL** be "20171231" (i.e., 12/31/2017).

-
1. **Conforms to** QRDA Category III Reporting Parameters Section **template** (identifier: urn:oid:2.16.840.1.113883.10.20.27.2.2).
 2. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-711278) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.27.2.6"** (CONF:2233-711279).
 - b. **SHALL** contain exactly one [1..1] **@extension="2016-11-01"** (CONF:2233-711306).
 3. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-14611) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.17.2.1"** (CONF:2233-14612).
Note: Reporting Parameters Section **templateId**
 4. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-18323) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.27.2.2"** (CONF:2233-18324).
Note: QRDA Category III Reporting Parameters Section **templateId**
 5. **SHALL** contain exactly one [1..1] **code** (CONF:2233-18191).
 - a. This code **SHALL** contain exactly one [1..1] **@code="55187-9"** Reporting Parameters (CONF:2233-19229).
 - 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:2233-26552).
 6. **SHALL** contain exactly one [1..1] **title="Reporting Parameters"** (CONF:2233-4142).
 7. **SHALL** contain exactly one [1..1] **text** (CONF:2233-4143).
 8. **SHALL** contain exactly one [1..1] **entry** (CONF:2233-711303) such that it
 - a. **SHALL** contain exactly one [1..1] **@typeCode="DRIV"** Is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:2233-711304).
 - b. **SHALL** contain exactly one [1..1] [Reporting Parameters Act - CMS \(V2\)](#) (identifier: urn:h17ii:2.16.840.1.113883.10.20.27.3.23:2016-11-01) (CONF:2233-711175).

Figure 19: QRDA-III Reporting Parameters Section - CMS Example

```

<section>
  <!--Reporting Parameters Section template ID -->
  <templateId root="2.16.840.1.113883.10.20.17.2.1" />
  <!--QRDA Category III Reporting Parameters Section template ID-->
  <templateId root="2.16.840.1.113883.10.20.27.2.2" />
  <!--QRDA Category III Reporting Parameters - CMS (V2) template
  ID-->
  <templateId root="2.16.840.1.113883.10.20.27.2.6"
  extension="2016-11-01"/>
  <code code="55187-9" codeSystem="2.16.840.1.113883.6.1" />
  <title>Reporting Parameters</title>
  <text>
    <list>
      <item>Reporting period: 01 Jan 2017 - 31 Dec 2017</item>
    </list>
  </text>
  <entry typeCode="DRIV">
    <!-- Reporting Parameters Act - CMS (V2) -->
    <act classCode="ACT" moodCode="EVN">
      <!-- Reporting Parameters Act templateId -->
      <templateId root="2.16.840.1.113883.10.20.17.3.8"/>
      <!-- Reporting Parameters Act - CMS (V2) template ID -->
      <templateId root="2.16.840.1.113883.10.20.27.3.23"
      extension="2016-11-01"/>
      <id root="55a43e20-6463-46eb-81c3-9a3a1ad41225"/>
      <code code="252116004"
      codeSystem="2.16.840.1.113883.6.96"
      displayName="Observation Parameters"/>
      <effectiveTime>
        <low value="20170101"/>
        <high value="20171231"/>
      </effectiveTime>
    </act>
  </entry>
</section>

```

5.3 Entry-Level Templates

5.3.1 Advancing Care Information 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 9: Advancing Care information Measure Performed Measure Reference and Results Contexts

| Contained By | Contains |
|---|-----------------------------------|
| Advancing Care Information Section (optional) | Measure Performed |

This template defines the way that an advancing care information measure should be referenced and a measure performed type of advancing care information measure should be reported. Measures are referenced through externalAct reference to an externalDocument. The externalDocument/id is used to reference the measure.

Table 10: Advancing Care Information 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 | n/a | 3259-21419 | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER |
| @moodCode | 1..1 | SHALL | n/a | 3259-21420 | urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN |
| templateId | 1..1 | SHALL | n/a | 3259-21408 | n/a |
| @root | 1..1 | SHALL | n/a | 3259-21417 | 2.16.840.1.113883.10.20.27.3.29 |
| @extension | 1..1 | SHALL | n/a | 3259-21418 | 2016-09-01 |
| reference | 1..1 | SHALL | n/a | 3259-21405 | n/a |
| @typeCode | 1..1 | SHALL | n/a | 3259-21416 | REFR |
| externalDocument | 1..1 | SHALL | n/a | 3259-21406 | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) |
| @classCode | 1..1 | SHALL | n/a | 3259-21415 | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = DOC |
| id | 1..1 | SHALL | n/a | 3259-21407 | n/a |
| @root | 1..1 | SHALL | n/a | 3259-21412 | 2.16.840.1.113883.3.7031 |
| @extension | 1..1 | SHALL | n/a | 3259-21413 | n/a |
| text | 0..1 | SHOULD | n/a | 3259-21414 | n/a |
| component | 1..1 | SHALL | n/a | 3259-21404 | n/a |
| observation | 1..1 | SHALL | n/a | 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 advancing care information identifier
 2. **SHALL** contain exactly one [1..1] **@extension** (CONF:3259-21413).
Note: This **@extension** is the value of advancing care information 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 20: Advancing Care Information 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"/>
  <!--Advancing Care Information 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 advancing care information measure
unique identifier. -->
    <externalDocument classCode="DOC" moodCode="EVN">
      <!-- extension is the unique identifier for an advancing care
information measure. -->
      <id root="2.16.840.1.113883.3.7031"
extension="ACI_PPHI_1"/>
      <!-- Advancing care information measure title -->
      <text>Security Risk Analysis</text>
    </externalDocument>
  </reference>
  <component>
    <!-- Measure Performed -->
    ...
  </component>
  <component>
  ...
</organizer>

```

5.3.2 Advancing Care Information Numerator Denominator Type Measure Reference and Results

[organizer: identifier
urn:hl7ii:2.16.840.1.113883.10.20.27.3.28:2016-09-01 (open)]

Table 11: Advancing Care information Numerator Denominator Type Measure Reference and Results Contexts

| Contained By | Contains |
|---|--|
| Advancing Care Information Section (optional) | Advancing Care Information Numerator Denominator Type Measure Denominator Data Advancing Care Information Numerator Denominator Type Measure Numerator Data Performance Rate |

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

Table 12: Advancing Care Information Numerator Denominator Type Measure Reference and Results Constraints Overview

observation[templated/@root = '2.16.840.1.113883.10.20.27.3.28']
[templated/@extension="2016-09-01"]

| XPath | Card. | Verb | Data Type | CONF# | Value |
|------------------|-------|-------|-----------|----------------------------|---|
| @classCode | 1..1 | SHALL | n/a | 3259-21273 | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER |
| @moodCode | 1..1 | SHALL | n/a | 3259-21274 | urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN |
| templated | 1..1 | SHALL | n/a | 3259-21248 | n/a |
| @root | 1..1 | SHALL | n/a | 3259-21266 | 2.16.840.1.113883.10.20.27.3.28 |
| @extension | 1..1 | SHALL | n/a | 3259-21396 | 2016-09-01 |
| reference | 1..1 | SHALL | n/a | 3259-21242 | n/a |
| @typeCode | 1..1 | SHALL | n/a | 3259-21265 | REFR |
| externalDocument | 1..1 | SHALL | n/a | 3259-21243 | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) |
| @classCode | 1..1 | SHALL | n/a | 3259-21264 | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = DOC |
| id | 1..1 | SHALL | n/a | 3259-21247 | n/a |
| @root | 1..1 | SHALL | n/a | 3259-21402 | 2.16.840.1.113883.3.7031 |

| | | | | | |
|-------------|------|--------|-----|----------------------------|---|
| @extension | 1..1 | SHALL | n/a | 3259-21403 | n/a |
| text | 0..1 | SHOULD | n/a | 3259-21263 | n/a |
| component | 1..1 | SHALL | n/a | 3259-21240 | n/a |
| observation | 1..1 | SHALL | n/a | 3259-21311 | Performance Rate (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.30:2016-09-01) |
| component | 1..1 | SHALL | n/a | 3259-21312 | n/a |
| observation | 1..1 | SHALL | n/a | 3259-21313 | Advancing Care Information 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 | n/a | 3259-21320 | n/a |
| observation | 1..1 | SHALL | n/a | 3259-21321 | Advancing Care Information 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:3259-21273).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:3259-21274).
4. **SHALL** contain exactly one [1..1] templateId (CONF:3259-21248) such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.28" (CONF:3259-21266).
 - b. **SHALL** contain exactly one [1..1] @extension="2016-09-01" (CONF:3259-21396).
5. **SHALL** contain exactly one [1..1] reference (CONF:3259-21242) such that it
 - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" (CONF:3259-21265).
 - b. **SHALL** contain exactly one [1..1] externalDocument (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:3259-21243).
 - i. This externalDocument **SHALL** contain exactly one [1..1] @classCode="DOC" Document (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3259-21264).
 - ii. This externalDocument **SHALL** contain exactly one [1..1] id (CONF:3259-21247) such that it
 1. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.3.7031" (CONF:3259-21402). Note: This OID indicates that the @extension contains advancing care information identifier
 2. **SHALL** contain exactly one [1..1] @extension (CONF:3259-21403). Note: This @extension is the value of advancing care information 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:3259-21263).
6. **SHALL** contain exactly one [1..1] component (CONF:3259-21240) such that it
 - a. **SHALL** contain exactly one [1..1] Performance Rate (identifier: urn:h17ii:2.16.840.1.113883.10.20.27.3.30:2016-09-01) (CONF:3259-21311).
7. **SHALL** contain exactly one [1..1] component (CONF:3259-21312) such that it
 - a. **SHALL** contain exactly one [1..1] Advancing Care Information Numerator Denominator Type Measure Numerator Data (identifier: urn:h17ii:2.16.840.1.113883.10.20.27.3.31:2016-09-01) (CONF:3259-21313).
8. **SHALL** contain exactly one [1..1] component (CONF:3259-21320) such that it
 - a. **SHALL** contain exactly one [1..1] Advancing Care Information Numerator Denominator Type Measure Denominator Data (identifier: urn:h17ii:2.16.840.1.113883.10.20.27.3.32:2016-09-01) (CONF:3259-21321).

Figure 21: Advancing Care Information Numerator Denominator Type 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"/>
  <!--Advancing care information Numerator Denominator Type Measure
Reference and Results -->
  <templateId root="2.16.840.1.113883.10.20.27.3.28"
extension="2016-09-01"/>
  <id root="ac575aef-7062-4ea2-b723-df517cfa470a"/>
  <statusCode code="completed"/>
  <reference typeCode="REFR">
    <!-- Reference to a particular advancing care information
measure unique identifier. -->
    <externalDocument classCode="DOC" moodCode="EVN">
      <!-- extension is the unique identifier for an advancing care
information measure.-->
      <id root="2.16.840.1.113883.3.7031"
extension="ACI_MOD_PEA_1"/>
      <!-- Advancing care information measure title -->
      <text>Patient Access</text>
    </externalDocument>
  </reference>
  <component>
    <!-- Performance Rate -->
    ...
  </component>
  <component>
    <!-- Advancing Care Information Numerator Denominator Type
Measure Denominator Data -->
    ...
  </component>
  <component>
    <!-- Advancing Care Information Numerator Denominator Type
Measure Numerator Data -->
    ...
  </component>
</organizer>

```

5.3.3 Advancing Care Information 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 13: Advancing Care Information Numerator Denominator Type Measure Denominator Data Contexts

| Contained By | Contains |
|--|---------------------------------|
| Advancing Care Information Numerator Denominator Type Measure Reference and Results (required) | Aggregate Count |

This template is used for reporting aggregated denominator count for advancing care information Numerator Denominator type of measure.

Table 14: Advancing Care information 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 | n/a | 3259-21378 | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL | n/a | 3259-21379 | urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN |
| templateId | 1..1 | SHALL | n/a | 3259-21366 | n/a |
| @root | 1..1 | SHALL | n/a | 3259-21374 | 2.16.840.1.113883.10.20.27.3.32 |
| @extension | 1..1 | SHALL | n/a | 3259-21400 | 2016-09-01 |
| code | 1..1 | SHALL | n/a | 3259-21365 | n/a |
| @code | 1..1 | SHALL | n/a | 3259-21372 | ASSERTION |
| @codeSystem | 1..1 | SHALL | n/a | 3259-21373 | urn:oid:2.16.840.1.113883.5.4 (ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL | n/a | 3259-21367 | n/a |
| @code | 1..1 | SHALL | n/a | 3259-21375 | urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed |
| value | 1..1 | SHALL | CD | 3259-21368 | n/a |
| @code | 1..1 | SHALL | n/a | 3259-21376 | DENOM |
| @codeSystem | 1..1 | SHALL | n/a | 3259-21377 | urn:oid:2.16.840.1.113883.5.4 (ActCode) = 2.16.840.1.113883.5.4 |
| entryRelationship | 1..1 | SHALL | n/a | 3259-21364 | n/a |
| @typeCode | 1..1 | SHALL | n/a | 3259-21370 | SUBJ |
| @inversionInd | 1..1 | SHALL | n/a | 3259-21371 | true |
| observation | 1..1 | SHALL | n/a | 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 22: Advancing Care Information 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 Advancing Care Information 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 15: Advancing Care Information Numerator Denominator Type Measure Numerator Data Contexts

| Contained By | Contains |
|--|---------------------------------|
| Advancing Care Information Numerator Denominator Type Measure Reference and Results (required) | Aggregate Count |

This template is used for reporting aggregated numerator count for advancing care information Numerator Denominator type of measure.

Table 16: Advancing Care Information 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 | n/a | 3259-21360 | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL | n/a | 3259-21361 | urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN |

| | | | | | |
|-------------------|------|-------|-----|----------------------------|--|
| templateId | 1..1 | SHALL | n/a | 3259-21324 | n/a |
| @root | 1..1 | SHALL | n/a | 3259-21342 | 2.16.840.1.113883.10.20.27.3.31 |
| @extension | 1..1 | SHALL | n/a | 3259-21401 | 2016-09-01 |
| code | 1..1 | SHALL | n/a | 3259-21323 | n/a |
| @code | 1..1 | SHALL | n/a | 3259-21340 | ASSERTION |
| @codeSystem | 1..1 | SHALL | n/a | 3259-21341 | urn:oid:2.16.840.1.113883.5.4 (ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL | n/a | 3259-21332 | n/a |
| @code | 1..1 | SHALL | n/a | 3259-21358 | urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed |
| value | 1..1 | SHALL | CD | 3259-21336 | n/a |
| @code | 1..1 | SHALL | n/a | 3259-21362 | NUMER |
| @codeSystem | 1..1 | SHALL | n/a | 3259-21363 | urn:oid:2.16.840.1.113883.5.4 (ActCode) = 2.16.840.1.113883.5.4 |
| entryRelationship | 1..1 | SHALL | n/a | 3259-21322 | n/a |
| @typeCode | 1..1 | SHALL | n/a | 3259-21338 | SUBJ |
| @inversionInd | 1..1 | SHALL | n/a | 3259-21339 | true |
| observation | 1..1 | SHALL | n/a | 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 23: Advancing Care Information 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 - CMS

[observation: templateId 2.16.840.1.113883.10.20.27.3.24 (open)]

Table 17: 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) | N/A |

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

Table 18: 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 | n/a | 1109-17563 | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL | n/a | 1109-17564 | urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN |
| templateId | 1..1 | SHALL | n/a | 1109-711262 | n/a |
| @root | 1..1 | SHALL | n/a | 1109-711263 | 2.16.840.1.113883.10.20.27.3.24 |
| templateId | 1..1 | SHALL | n/a | 1109-17565 | n/a |
| @root | 1..1 | SHALL | n/a | 1109-18095 | 2.16.840.1.113883.10.20.27.3.3 |
| code | 1..1 | SHALL | n/a | 1109-17566 | n/a |
| @code | 1..1 | SHALL | n/a | 1109-19508 | MSRAGG |
| @codeSystem | 1..1 | SHALL | n/a | 1109-21160 | urn:oid:2.16.840.1.113883.5.4 (ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL | n/a | 1109-711244 | n/a |
| @code | 1..1 | SHALL | n/a | 1109-711245 | urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed |
| value | 1..1 | SHALL | INT | 1109-17567 | n/a |
| @value | 1..1 | SHALL | n/a | 1109-17568 | n/a |
| methodCode | 1..1 | SHALL | n/a | 1109-19509 | n/a |
| @code | 1..1 | SHALL | n/a | 1109-19510 | COUNT |
| @codeSystem | 1..1 | SHALL | n/a | 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 19: Continuous Variable Measure Value - CMS Contexts

| Contained By | Contains |
|--|----------|
| Reporting Stratum - CMS (optional) | N/A |
| 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 20: 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 | n/a | 1109-17569 | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL | n/a | 1109-17570 | urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN |
| templateId | 1..1 | SHALL | n/a | 1109-711264 | n/a |
| @root | 1..1 | SHALL | n/a | 1109-711265 | 2.16.840.1.113883.10.20.27.3.26 |
| templateId | 1..1 | SHALL | n/a | 1109-18096 | n/a |
| @root | 1..1 | SHALL | n/a | 1109-18097 | 2.16.840.1.113883.10.20.27.3.2 |
| code | 1..1 | SHALL | n/a | 1109-17571 | n/a |
| statusCode | 1..1 | SHALL | n/a | 1109-711241 | n/a |
| @code | 1..1 | SHALL | n/a | 1109-711242 | urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed |
| value | 1..1 | SHALL | n/a | 1109-17572 | n/a |
| methodCode | 1..1 | SHALL | n/a | 1109-18242 | urn:oid:2.16.840.1.113883.1.11.20450 (ObservationMethodAggregate) |
| reference | 1..1 | SHALL | n/a | 1109-18243 | n/a |
| externalObservation | 1..1 | SHALL | n/a | 1109-18244 | n/a |
| id | 1..1 | SHALL | n/a | 1109-711205 | n/a |

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
    eMeasure -->
  <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 21: 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 clinician 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 22: 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 | n/a | 2233-18216 | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL | n/a | 2233-18217 | urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN |
| templateId | 1..1 | SHALL | n/a | 2233-711253 | n/a |
| @root | 1..1 | SHALL | n/a | 2233-711254 | 2.16.840.1.113883.10.20.27.3.22 |
| @extension | 1..1 | SHALL | n/a | 2233-711312 | 2016-11-01 |
| templateId | 1..1 | SHALL | n/a | 2233-18218 | n/a |
| @root | 1..1 | SHALL | n/a | 2233-18219 | 2.16.840.1.113883.10.20.27.3.7 |
| @extension | 0..1 | SHALL | n/a | 2233-21176 | 2016-09-01 |
| code | 1..1 | SHALL | n/a | 2233-18220 | n/a |
| @code | 1..1 | SHALL | n/a | 2233-18221 | 69490-1 |
| @codeSystem | 1..1 | SHALL | n/a | 2233-21164 | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL | n/a | 2233-18118 | n/a |
| @code | 1..1 | SHALL | n/a | 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 | n/a | 2233-18120 | n/a |
| @typeCode | 1..1 | SHALL | n/a | 2233-18121 | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| @inversionInd | 1..1 | SHALL | n/a | 2233-18122 | true |
| observation | 1..1 | SHALL | n/a | 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 23: Improvement Activity Performed Measure Reference and Results Contexts

| Contained By | Contains |
|---|-----------------------------------|
| Improvement Activity Section (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.

Table 24: 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 | n/a | 3259-21434 | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER |
| @moodCode | 1..1 | SHALL | n/a | 3259-21435 | urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN |
| templateId | 1..1 | SHALL | n/a | 3259-21425 | n/a |
| @root | 1..1 | SHALL | n/a | 3259-21432 | 2.16.840.1.113883.10.20.27.3.33 |
| @extension | 1..1 | SHALL | n/a | 3259-21433 | 2016-09-01 |

| | | | | | |
|------------------|------|--------|-----|----------------------------|---|
| reference | 1..1 | SHALL | n/a | 3259-21422 | n/a |
| @typeCode | 1..1 | SHALL | n/a | 3259-21431 | REFR |
| externalDocument | 1..1 | SHALL | n/a | 3259-21423 | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) |
| @classCode | 1..1 | SHALL | n/a | 3259-21430 | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = DOC |
| id | 1..1 | SHALL | n/a | 3259-21424 | n/a |
| @root | 1..1 | SHALL | n/a | 3259-21427 | 2.16.840.1.113883.3.7034 |
| @extension | 1..1 | SHALL | n/a | 3259-21428 | n/a |
| text | 0..1 | SHOULD | n/a | 3259-21429 | n/a |
| component | 1..1 | SHALL | n/a | 3259-21421 | n/a |
| observation | 1..1 | SHALL | n/a | 3259-21426 | Measure Performed (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.2.7:2016-09-01) |

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 25: 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 eMeasures 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 eMeasures with multiple population groups (a population group is a set of IPP, numerator, denominator, etc.), and eMeasures with multiple denominators and numerators (for example, an eMeasure 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 26: Measure Data - CMS (V2) Constraints Overview

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

| XPath | Card. | Verb | Data Type | CONF# | Value |
|-------------|-------|-------|-----------|-----------------------------|---|
| @classCode | 1..1 | SHALL | n/a | 2233-17615 | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL | n/a | 2233-17616 | urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN |
| templated | 1..1 | SHALL | n/a | 2233-711266 | n/a |
| @root | 1..1 | SHALL | n/a | 2233-711267 | 2.16.840.1.113883.10.20.27.3.16 |
| @extension | 1..1 | SHALL | n/a | 2233-711287 | 2016-11-01 |
| templated | 1..1 | SHALL | n/a | 2233-17912 | n/a |
| @root | 1..1 | SHALL | n/a | 2233-17913 | 2.16.840.1.113883.10.20.27.3.5 |
| @extension | 1..1 | SHALL | n/a | 2233-711288 | 2016-09-01 |
| code | 1..1 | SHALL | n/a | 2233-17617 | n/a |
| @code | 1..1 | SHALL | n/a | 2233-18198 | ASSERTION |
| @codeSystem | 1..1 | SHALL | n/a | 2233-711318 | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL | n/a | 2233-18199 | urn:oid:2.16.840.1.113883.5.14 (ActStatus) |
| @code | 1..1 | SHALL | n/a | 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 | n/a | 2233-17619 | n/a |
| @typeCode | 1..1 | SHALL | n/a | 2233-17910 | SUBJ |
| @inversionInd | 1..1 | SHALL | n/a | 2233-17911 | true |
| observation | 1..1 | SHALL | n/a | 2233-711198 | Aggregate Count - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24) |
| entryRelationship | 0..* | MAY | n/a | 2233-17918 | n/a |
| @typeCode | 1..1 | SHALL | n/a | 2233-17919 | COMP |
| observation | 1..1 | SHALL | n/a | 2233-711180 | Reporting Stratum - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.20) |
| entryRelationship | 1..* | SHALL | n/a | 2233-711190 | n/a |
| @typeCode | 1..1 | SHALL | n/a | 2233-18137 | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL | n/a | 2233-711181 | Sex Supplemental Data Element - CMS (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.21:2016-03-01) |
| entryRelationship | 1..* | SHALL | n/a | 2233-711191 | n/a |
| @typeCode | 1..1 | SHALL | n/a | 2233-18144 | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL | n/a | 2233-711182 | Ethnicity Supplemental Data Element - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.22) |
| entryRelationship | 1..* | SHALL | n/a | 2233-711192 | n/a |
| @typeCode | 1..1 | SHALL | n/a | 2233-18145 | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL | n/a | 2233-711183 | Race Supplemental Data Element - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.19) |
| entryRelationship | 1..* | SHALL | n/a | 2233-711193 | n/a |
| @typeCode | 1..1 | SHALL | n/a | 2233-18146 | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL | n/a | 2233-711184 | Payer Supplemental Data Element - CMS (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.18:2016-03-01) |
| entryRelationship | 0..* | MAY | n/a | 2233-18143 | n/a |
| @typeCode | 1..1 | SHALL | n/a | 2233-18148 | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |

| | | | | | |
|---------------------|------|-------|-----|-----------------------------|--|
| observation | 1..1 | SHALL | n/a | 2233-711212 | Continuous Variable Measure Value - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.26) |
| reference | 1..1 | SHALL | n/a | 2233-18239 | n/a |
| externalObservation | 1..1 | SHALL | n/a | 2233-18240 | n/a |
| id | 1..1 | SHALL | n/a | 2233-711233 | n/a |

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 [observationPopulationInclusion](#)
[urn:oid:2.16.840.1.113883.1.11.20369](#) **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 eMeasure -->
  <reference typeCode="REFR">
    <externalObservation classCode="OBS" moodCode="EVN">
      <id root="670DFFA3-F2EE-4CF7-9083-743F2C1D7D50"/>
      <!-- This is the population ID in the eMeasure.
        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 27: Measure Performed Contexts

| Contained By | Contains |
|--|----------|
| Advancing Care Information Measure Performed Measure Reference and Results (required) Improvement Activity Performed Measure Reference and Results (required) | N/A |

This template reports whether a measurement was performed or not.

Table 28: 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 | n/a | 3259-21221 | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL | n/a | 3259-21222 | urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN |
| templateId | 1..1 | SHALL | n/a | 3259-21185 | n/a |
| @root | 1..1 | SHALL | n/a | 3259-21203 | 2.16.840.1.113883.10.20.27.3.27 |
| @extension | 1..1 | SHALL | n/a | 3259-21399 | 2016-09-01 |
| code | 1..1 | SHALL | n/a | 3259-21382 | n/a |
| @code | 1..1 | SHALL | n/a | 3259-21392 | ASSERTION |
| @codeSystem | 1..1 | SHALL | n/a | 3259-21393 | urn:oid:2.16.840.1.113883.5.4 (ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL | n/a | 3259-21440 | n/a |
| @code | 1..1 | SHALL | n/a | 3259-21442 | urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed |
| value | 1..1 | SHALL | CD | 3259-21391 | urn:oid:2.16.840.1.114222.4.11.819 (Yes No Indicator (HL7)) |

- SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:3259-21221).
- SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:3259-21222).
- 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 29: Measure Reference and Results - CMS (V3) 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 30: Measure Reference and Results - CMS (V3) 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 | n/a | 2233-17887 | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER |
| @moodCode | 1..1 | SHALL | n/a | 2233-17888 | urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN |
| templated | 1..1 | SHALL | n/a | 2233-711268 | n/a |
| @root | 1..1 | SHALL | n/a | 2233-711269 | 2.16.840.1.113883.10.20.27.3.17 |
| @extension | 1..1 | SHALL | n/a | 2233-711297 | 2016-11-01 |
| templated | 1..1 | SHALL | n/a | 2233-19532 | n/a |
| @root | 1..1 | SHALL | n/a | 2233-19533 | 2.16.840.1.113883.10.20.24.3.98 |
| templated | 1..1 | SHALL | n/a | 2233-17908 | n/a |
| @root | 1..1 | SHALL | n/a | 2233-17909 | 2.16.840.1.113883.10.20.27.3.1 |
| @extension | 1..1 | SHALL | n/a | 2233-21170 | 2016-09-01 |
| statusCode | 1..1 | SHALL | n/a | 2233-17889 | n/a |
| @code | 1..1 | SHALL | n/a | 2233-19552 | urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed |
| reference | 1..1 | SHALL | n/a | 2233-17890 | n/a |
| @typeCode | 1..1 | SHALL | n/a | 2233-17891 | REFR |
| externalDocument | 1..1 | SHALL | n/a | 2233-17892 | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) |
| @classCode | 1..1 | SHALL | n/a | 2233-19548 | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = DOC |
| id | 1..1 | SHALL | n/a | 2233-18192 | n/a |
| @root | 1..1 | SHALL | n/a | 2233-18193 | 2.16.840.1.113883.4.738 |
| @extension | 1..1 | SHALL | n/a | 2233-711289 | n/a |
| code | 0..1 | SHOULD | n/a | 2233-17896 | urn:oid:2.16.840.1.113883.6.1 (LOINC) |
| @code | 1..1 | SHALL | n/a | 2233-19553 | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 57024-2 |
| text | 0..1 | SHOULD | n/a | 2233-17897 | n/a |

| | | | | | |
|-------------|------|-------|-----|-----------------------------|---|
| component | 0..* | MAY | n/a | 2233-17903 | n/a |
| observation | 1..1 | SHALL | n/a | 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 | n/a | 2233-18425 | n/a |
| observation | 1..1 | SHALL | n/a | 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 it

a. **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 it

a. **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 eMeasure
-->
      <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 eMeasure -->
      <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 31: 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 clinician programs, all codes present in the value set must be reported, even if the count is zero. If an eMeasure 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 32: 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 | n/a | 2233-21155 | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL | n/a | 2233-21156 | urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN |
| templateId | 1..1 | SHALL | n/a | 2233-711270 | n/a |
| @root | 1..1 | SHALL | n/a | 2233-711271 | 2.16.840.1.113883.10.20.27.3.18 |
| @extension | 1..1 | SHALL | n/a | 2233-711299 | 2016-11-01 |
| templateId | 1..1 | SHALL | n/a | 2233-18237 | n/a |
| @root | 1..1 | SHALL | n/a | 2233-18238 | 2.16.840.1.113883.10.20.27.3.9 |
| @extension | 1..1 | SHALL | n/a | 2233-21157 | 2016-02-01 |
| code | 1..1 | SHALL | n/a | 2233-21158 | n/a |
| @code | 1..1 | SHALL | n/a | 2233-21159 | 48768-6 |
| @codeSystem | 1..1 | SHALL | n/a | 2233-21165 | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL | n/a | 2233-18106 | n/a |
| @code | 1..1 | SHALL | n/a | 2233-18107 | urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed |
| value | 1..1 | SHALL | CD | 2233-711196 | n/a |
| translation | 1..1 | SHALL | n/a | 2233-711230 | n/a |
| @code | 1..1 | SHALL | n/a | 2233-711231 | urn:oid:2.16.840.1.113883.3.249.14.102 (CMS Payer Groupings) |
| @nullFlavor | 1..1 | SHALL | n/a | 2233-711229 | OTH |
| entryRelationship | 1..1 | SHALL | n/a | 2233-18108 | n/a |
| @typeCode | 1..1 | SHALL | n/a | 2233-18109 | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| @inversionInd | 1..1 | SHALL | n/a | 2233-18110 | true |
| observation | 1..1 | SHALL | n/a | 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 33: 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 34: Performance Rate Contexts

| Contained By | Contains |
|--|----------|
| Advancing Care Information Numerator Denominator Type Measure Reference and Results (required) | N/A |

Table 35: 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 | n/a | 3259-21303 | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL | n/a | 3259-21304 | urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN |
| templateId | 1..1 | SHALL | n/a | 3259-21298 | n/a |
| @root | 1..1 | SHALL | n/a | 3259-21310 | 2.16.840.1.113883.10.20.27.3.30 |
| @extension | 1..1 | SHALL | n/a | 3259-21441 | 2016-09-01 |
| code | 1..1 | SHALL | n/a | 3259-21294 | n/a |
| @code | 1..1 | SHALL | n/a | 3259-21305 | 72510-1 |
| @codeSystem | 1..1 | SHALL | n/a | 3259-21306 | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL | n/a | 3259-21297 | n/a |
| @code | 1..1 | SHALL | n/a | 3259-21309 | urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed |
| value | 1..1 | SHALL | REAL | 3259-21307 | n/a |

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

| Contained By | Contains |
|---|----------|
| Measure Reference and Results - CMS (V2) (optional) | N/A |

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 later 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 37: Performance Rate for Proportion Measure - CMS (V2) Constraints Overview

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

| XPath | Card. | Verb | Data Type | CONF# | Value |
|---------------------|-------|-------|-----------|-----------------------------|--|
| @classCode | 1..1 | SHALL | n/a | 2233-18395 | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL | n/a | 2233-18396 | urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN |
| templated | 1..1 | SHALL | n/a | 2233-711255 | n/a |
| @root | 1..1 | SHALL | n/a | 2233-711256 | 2.16.840.1.113883.10.20.27.3.25 |
| @extension | 1..1 | SHALL | n/a | 2233-711320 | 2016-11-01 |
| templated | 1..1 | SHALL | n/a | 2233-19649 | n/a |
| @root | 1..1 | SHALL | n/a | 2233-19650 | 2.16.840.1.113883.10.20.27.3.14 |
| @extension | 1..1 | SHALL | n/a | 2233-711321 | 2016-09-01 |
| templated | 1..1 | SHALL | n/a | 2233-711332 | n/a |
| @root | 1..1 | SHALL | n/a | 2233-711334 | 2.16.840.1.113883.10.20.27.3.30 |
| @extension | 1..1 | SHALL | n/a | 2233-711335 | 2016-09-01 |
| code | 1..1 | SHALL | n/a | 2233-21294 | n/a |
| @code | 1..1 | SHALL | n/a | 2233-21305 | 72510-1 |
| @codeSystem | 1..1 | SHALL | n/a | 2233-21306 | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL | n/a | 2233-21297 | n/a |
| @code | 1..1 | SHALL | n/a | 2233-21309 | urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed |
| value | 1..1 | SHALL | REAL | 2233-21307 | n/a |
| reference | 1..1 | SHALL | n/a | 2233-711203 | n/a |
| @typeCode | 1..1 | SHALL | n/a | 2233-19652 | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| externalObservation | 1..1 | SHALL | n/a | 2233-19653 | n/a |
| @classCode | 1..1 | SHALL | n/a | 2233-19654 | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) |
| id | 1..1 | SHALL | n/a | 2233-711204 | n/a |
| @root | 1..1 | SHALL | n/a | 2233-19656 | n/a |

| | | | | | |
|-------------|------|-------|-----|-----------------------------|---|
| code | 1..1 | SHALL | n/a | 2233-19657 | n/a |
| @code | 1..1 | SHALL | n/a | 2233-19658 | NUMER |
| @codeSystem | 1..1 | SHALL | n/a | 2233-711319 | 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:2233-711204).
 1. This id **SHALL** contain exactly one [1..1] @root (CONF:2233-19656).
Note: This is the ID of the numerator in the referenced eMeasure.
 - 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:2233-711319).

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 eMeasure -->
  <reference typeCode="REFR">
    <externalObservation classCode="OBS" moodCode="EVN">
      <!-- The externalObservationID contains the ID of the numerator in the referenced eMeasure. -->
      <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 38: 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 clinician 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 eMeasures, the count will reflect the patient count rather than the episode count.

Table 39: Race Supplemental Data Element - CMS Constraints Overview

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

| XPath | Card. | Verb | Data Type | CONF# | Fixed Value |
|-------------|-------|-------|-----------|-----------------------------|---|
| @classCode | 1..1 | SHALL | n/a | 2233-18223 | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL | n/a | 2233-18224 | urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN |
| templated | 1..1 | SHALL | n/a | 2233-711257 | n/a |
| @root | 1..1 | SHALL | n/a | 2233-711258 | 2.16.840.1.113883.10.20.27.3.19 |
| @extension | 1..1 | SHALL | n/a | 2233-711315 | 2016-11-01 |
| templated | 1..1 | SHALL | n/a | 2233-18225 | n/a |
| @root | 1..1 | SHALL | n/a | 2233-18226 | 2.16.840.1.113883.10.20.27.3.8 |
| @extension | 0..1 | SHALL | n/a | 2233-21178 | 2016-09-01 |
| code | 1..1 | SHALL | n/a | 2233-18227 | n/a |
| @code | 1..1 | SHALL | n/a | 2233-18228 | 72826-1 |
| @codeSystem | 1..1 | SHALL | n/a | 2233-21167 | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL | n/a | 2233-18112 | n/a |
| @code | 1..1 | SHALL | n/a | 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 | n/a | 2233-18114 | n/a |
| @typeCode | 1..1 | SHALL | n/a | 2233-18115 | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| @inversionInd | 1..1 | SHALL | n/a | 2233-18116 | true |
| observation | 1..1 | SHALL | n/a | 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 - CMS (V2)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.27.3.23:2016-11-01 (open)]

Table 40: Reporting Parameters Act - CMS (V2) Contexts

| Contained By | Contains |
|--|----------|
| QRDA Category III Reporting Parameters Section - CMS (V2) (required) | N/A |

This template provides information about the reporting time interval, and provides context for the patient data being reported to the CMS eligible clinician program.

Table 41: Reporting Parameters Act - CMS (V2) Constraints Overview

act[templateId/@root = '2.16.840.1.113883.10.20.27.3.23']
[templateId/@extension='2016-11-01']

| XPath | Card. | Verb | Data Type | CONF# | Fixed Value |
|---------------|-------|-------|-----------|-----------------------------|---|
| @classCode | 1..1 | SHALL | n/a | 2233-3269 | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL | n/a | 2233-3270 | urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN |
| templateId | 1..1 | SHALL | n/a | 2233-711272 | n/a |
| @root | 1..1 | SHALL | n/a | 2233-711273 | 2.16.840.1.113883.10.20.27.3.23 |
| @extension | 1..1 | SHALL | n/a | 2233-711322 | 2016-11-01 |
| templateId | 1..1 | SHALL | n/a | 2233-18098 | n/a |
| @root | 1..1 | SHALL | n/a | 2233-18099 | 2.16.840.1.113883.10.20.17.3.8 |
| code | 1..1 | SHALL | n/a | 2233-3272 | n/a |
| @code | 1..1 | SHALL | n/a | 2233-26550 | 252116004 |
| @codeSystem | 1..1 | SHALL | n/a | 2233-26551 | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| effectiveTime | 1..1 | SHALL | n/a | 2233-3273 | n/a |
| low | 1..1 | SHALL | n/a | 2233-3274 | n/a |
| @value | 1..1 | SHALL | n/a | 2233-711292 | 20170101 |
| high | 1..1 | SHALL | n/a | 2233-3275 | n/a |
| @value | 1..1 | SHALL | n/a | 2233-711293 | 20171231 |

1. **Conforms to** Reporting Parameters Act **template** (identifier: urn:oid:2.16.840.1.113883.10.20.17.3.8).
2. **SHALL** contain exactly one [1..1] @classCode="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:2233-3269).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:2233-3270).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-711272) such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.23" (CONF:2233-711273).
 - b. **SHALL** contain exactly one [1..1] @extension="2016-11-01" (CONF:2233-711322).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-18098) such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.17.3.8" (CONF:2233-18099).

Note: Reporting Parameters Act templateId (QRDA III)

6. **SHALL** contain exactly one [1..1] **code** (CONF:2233-3272).
 - a. This code **SHALL** contain exactly one [1..1] **@code="252116004"** Observation Parameters (CONF:2233-26550).
 - 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:2233-26551).
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:2233-3273).
 - a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:2233-3274).
 - i. This low **SHALL** contain exactly one [1..1] **@value="20170101"** (CONF:2233-711292).
Note: For Program Year 2017, the reporting parameter start date SHALL be "20170101".
 - b. This effectiveTime **SHALL** contain exactly one [1..1] **high** (CONF:2233-3275).
 - i. This high **SHALL** contain exactly one [1..1] **@value="20171231"** (CONF:2233-711293).
Note: For Program Year 2017, the reporting parameter end date SHALL be "20171231".

Figure 35: Reporting Parameters Act - CMS (V2) Example

```

<act classCode="ACT" moodCode="EVN">
  <!-- Reporting Parameters Act template ID -->
  <templateId root="2.16.840.1.113883.10.20.17.3.8"/>
  <!-- Reporting Parameters Act - CMS (V2) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.23"
  extension="2016-11-01"/>
  <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 reporting period -->
    <low value="20170101"/>
    <!-- The high value is the end date of the reporting period -->
    <high value="20171231"/>
  </effectiveTime>
</act>

```

5.3.16 Reporting Stratum - CMS

[observation: templateId 2.16.840.1.113883.10.20.27.3.20 (open)]

Table 42: 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 eMeasure. The Reporting Stratum also provides the number of patients in the referenced stratification. Note that all strata must be present for CMS eligible clinician program reporting, even if the count is zero. Each stratum identified in the referenced eMeasure(s), must be reported for each population. Each stratum may only be reported once for a specific population.

Table 43: Reporting Stratum – CMS Constraints Overview

observation[templated/@root = '2.16.840.1.113883.10.20.27.3.20']

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

| XPath | Card | Verb | Data Type | CONF# | Fixed Value |
|---------------------|------|-------|-----------|----------------------------|--|
| reference | 1..1 | SHALL | n/a | 1109-18204 | n/a |
| @typeCode | 1..1 | SHALL | n/a | 1109-18205 | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| externalObservation | 1..1 | SHALL | n/a | 1109-18206 | n/a |
| id | 1..1 | SHALL | n/a | 1109-18207 | n/a |

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 eMeasure -->
    <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 44: 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 clinician 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 45: 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 | n/a | 2233-18230 | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL | n/a | 2233-18231 | urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN |
| templateId | 1..1 | SHALL | n/a | 2233-711259 | |
| @root | 1..1 | SHALL | n/a | 2233-711260 | 2.16.840.1.113883.10.20.27.3.21 |
| @extension | 1..1 | SHALL | n/a | 2233-711301 | 2016-11-01 |
| templateId | 1..1 | SHALL | n/a | 2233-18232 | |
| @root | 1..1 | SHALL | n/a | 2233-18233 | 2.16.840.1.113883.10.20.27.3.6 |
| @extension | 1..1 | SHALL | n/a | 2233-21160 | 2016-09-01 |
| code | 1..1 | SHALL | n/a | 2233-18234 | n/a |
| @code | 1..1 | SHALL | n/a | 2233-18235 | 76689-9 |
| @codeSystem | 1..1 | SHALL | n/a | 2233-21163 | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL | n/a | 2233-18124 | n/a |
| @code | 1..1 | SHALL | n/a | 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 | n/a | 2233-18126 | n/a |
| @typeCode | 1..1 | SHALL | n/a | 2233-18127 | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| @inversionInd | 1..1 | SHALL | n/a | 2233-18128 | true |
| observation | 1..1 | SHALL | n/a | 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>
```

6 eCQM Specifications for Eligible Clinicians

April 2016 UUID List

The following tables list the Version Specific Measure Identifier for each eCQM included in the [eCQM Specifications for Eligible Professionals April 2016 for MIPS reporting](#), and the population identifiers for all population criteria within each of the eCQM. If an eCQM specifies Reporting Stratification, identifiers of reporting strata are also listed for that eCQM. **All UUIDs are case insensitive.**

Populations in **Error! Reference source not found.** are labeled using the population codes listed below:

- Initial Population: IPOPOP
- Denominator: DENOM
- Denominator Exclusion: DENEX
- Numerator: NUMER
- Denominator Exception: DENEXCEP
- Numerator Exclusion: NUMEX
- Measure Population: MSRPOPL
- Stratum: STRAT

Table 46: UUID List for eCQM Specifications Eligible Professionals April 2016

| NQF/ Quality # | eCQM CMS # | Version Specific Measure ID | Population ID | |
|-------------------|---------------|--|--|--|
| 0418/ 134 | CMS2 v6 | 40280381-537c-f767-0153- c378bd7207a5 | <u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u> <u>DENEXCEP:</u> | 55D921A2-0700-43F0-8C6F-1DB4ADDD7FAB CB0D06D7-9C40-45B0-AEC2-60C39262ABA0 8C56B86F-EFE9-404D-B97C-F8FC4691D50D D94BAE8B-1EAC-4832-B040-884B4BBC5BD0 E98E90BE-F3BD-42CD-A194-D6BEFA1BB714 |
| N/A/ 317 | CMS22 v5 | 40280381-528a-60ff-0152- 94967c8a0860 | <u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u> <u>DENEXCEP:</u> | C7E7C7AF-464F-43A0-8C84-CDF99953C97 65AFB8BA-F5CC-4ABA-A3FB-2F95FEE2B6FA 8867C7A7-F8F1-4B61-A6C7-9390C5B5B4EF 8964CE5A-64A4-4259-9359-39A1CDC07B8D 2338C9B7-B2C5-4348-BF2B-C9E636FD7A45 |
| N/A/ 374 | CMS50 v5 | 40280381-5118-2f4e-0151- 59fb81bf1055 | <u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> | E7A4AE77-FC46-44F1-BF25-9E99A89CED9B B710DA92-D4B9-4217-8D1E-94B35163BECE 9824B759-A263-44DE-9F5E-93DA4E8F4627 |
| 0405/ 160 | CMS52 v5 | 40280381-51f0-825b-0152- 2273af5a150b | <u>IPOP 1:</u> <u>DENOM 1:</u> <u>NUMER 1:</u> <u>DENEXCEP</u> <u>1:</u> <u>IPOP 2:</u> <u>DENOM 2:</u> <u>NUMER 2:</u> <u>DENEXCEP</u> <u>2:</u> <u>IPOP 3:</u> <u>DENOM 3:</u> <u>NUMER 3:</u> | E681DBF8-F827-4586-B3E0-178FF19EC3A2 04BF53CE-6993-4EA2-BFE5-66E36172B388 631C0B49-83F4-4A54-96C4-7E0766B2407C 58347456-D1F3-4BBB-9B35-5D42825A0AB3 AAC578DB-1900-43BD-BBBF-50014A5457E5 1574973E-EB52-40C7-9709-25ABEDBA99A3 5B7AC4EC-547A-47E5-AC5E-618401175511 B7CCA1A6-F352-4A23-BC89-6FE9B60DC0C6 AF36C4A9-8BD9-4E21-838D-A47A1845EB90 B95BC0D3-572E-462B-BAA2-46CD33A865CD 86F74F07-D593-44F6-AA12-405966400963 |

| NQF/ Quality # | eCQM CMS # | Version Specific Measure ID | Population ID | |
|-------------------|---------------|--|---|--|
| N/A/ 376 | CMS56 v5 | 40280381-51f0-825b-0152- 227617db152e | <u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u> | 642D0090-BEAB-410B-B3B3-8D1A5EC5B919 FFA80359-2E09-48C8-8862-DD6E1F5F5428 65458ECD-6573-4203-8C56-515063BAFE19 7D021618-E1EE-4C2F-AD6A-F74E03D69E43 |
| N/A/ 373 | CMS65 v6 | 40280381-51f0-825b-0152- 227c2f851589 | <u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u> | 78CD5ACE-054C-43DF-A743-5F1E5BA4C099 CE973C7A-B867-422B-8408-83538E236039 74F900B9-65DA-4E6C-BB2D-592189ABDDE5 F67DCC8F-4F0F-491B-957F-B21E721B040B |
| N/A/ 375 | CMS66 v5 | 40280381-51f0-825b-0152- 227ce2c81597 | <u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u> | F0D80FC4-5E5E-46F3-A519-1B99013E2761 D795B824-0575-47B3-93DB-D48CD5643677 0E8BFC37-A4BA-4DE6-A6F3-DF4C188AB129 0DD7EF36-2B1D-4447-8E52-BF9C4A3E7ED3 |
| 0419/ 130 | CMS68 v6 | 40280381-52fc-3a32-0153- 3d64af97147b | <u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> <u>DENEXCEP:</u> | D412322D-11F1-4573-893E-E6A05855DE10 375D0559-C749-4BB9-9267-81EDF447650B EFFE261C-0D57-423E-992C-7141B132768C 3C100EC4-2990-4D79-AE14-E816F5E78AC8 |
| 0421/ 128 | CMS69 v5 | 40280381-5118-2f4e-0151- 20a31a780368 | <u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u> <u>DENEXCEP:</u> | 4D10500F-6738-4541-BF24-4C95C74B45AB 36CCB819-C150-466D-A55A-0A175B19E751 EE5FFA67-A42D-4472-8159-ED4B87BE6CDA 51D06394-AF97-41DD-BF41-68D58786A9D2 0E162220-C93B-48B0-AAB1-E2F8E7FE7EA1 |
| N/A/ 379 | CMS74 v6 | 40280381-52fc-3a32-0153- 1f6962df0f9c | <u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> <u>STRAT 1:</u> <u>STRAT 2:</u> <u>STRAT 3:</u> | BCE39253-0C5F-4DFA-A5BD-0828A8B2BB22 B41B2DF9-B4BF-4B89-A483-5B0C1A9D9804 BEF89159-5D5C-47C6-953D-63FCAEA41548 230680FE-5EB1-4E96-8FA7-59BC615983B6 20FFE4B7-1F66-41F7-92DB-32DA81CC9D0A 790D1664-E432-48C6-A53C-ACD1A2888857 |
| N/A/ 378 | CMS75 v5 | 40280381-52fc-3a32-0153- 1f39c24d0eef | <u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> | 72D79C93-6D03-4BA2-B250-5316E370B766 E87F18F1-F70C-4BB3-A95C-7C1D4561E73D 3D9AD35A-7456-4AA2-8FDB-D4B06DF72CC9 |
| N/A/ 372 | CMS82 v4 | 40280381-51f0-825b-0152- 2295c55c16aa | <u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> | D3ADB281-2F53-4BE6-89A9-124480DE787D 6B845134-C1B7-4383-AFB3-1FFB7EAD359B D2A5FF72-DE5E-413A-829E-C763FC07DF4A |
| N/A/ 377 | CMS90 v6 | 40280381-52fc-3a32-0153- 1f3f70ca0eff | <u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u> | AD37C6FE-2537-4A9B-8AD9-A372E3215F76 19ECF222-71EF-4D75-9CC2-19ED201107EA 32DBECF3-11EC-40FB-B35D-FA1BF7366492 F9B4C929-8F37-48D1-953C-489C028AE725 |
| 0038/ 240 | CMS117 v5 | 40280381-52fc-3a32-0153- 1a4ba57f0b8a | <u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> | DA379EC2-EE2E-4548-AEF0-DD4F14F80279 CC8AFFF0-A436-42CD-8322-5EBCE9CFB06 AE7A33AF-0DA7-4772-A23C-2D2CA732D53A |
| 0059/ 001 | CMS122 v5 | 40280381-51f0-825b-0152- 229afff616ee | <u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> | 0739FE2E-B8DE-4A56-B064-877CC8E0977D D346DA74-F16E-4159-BEDF-331BA28837FB 6D01A564-58CC-4CF5-929F-B83583701BFE |
| 0056/ 163 | CMS123 v5 | 40280381-51f0-825b-0152- 229b7b2f16f9 | <u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u> | 9AB84D25-5883-4D85-A868-0D702403F250 61B09878-32B3-4ECB-8E78-D1093E1FDDF9 02D13BF4-EF77-4DF4-A436-834AEDBE043C 60EC6098-950A-40E5-994F-E9A62CFF6FC2 |
| 0032/ 309 | CMS124 v5 | 40280381-51f0-825b-0152- 229bdcab1702 | <u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u> | 3A29C38D-E468-47CC-995B-B281B1B066CF 7CDA5C1B-CD31-4D16-80C4-22AE2F549D88 45A2163C-25C2-4245-A3C6-0BEE64E18B64 3854BDE6-9614-475D-8E3B-5A041C04C291 |
| 2372/ 112 | CMS125 v5 | 40280381-51f0-825b-0152- 229c4ea3170c | <u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u> | 66FD640C-70BB-400F-9926-98EA1ACEBEB 40FB2D5F-7DEF-4D41-80C4-F3FBA0ED5851 EC5CC49E-42A7-4DD8-BD40-A6258E71DCB9 0AB40D2B-08CE-4185-8A54-336C3140644D |

| NQF/ Quality # | eCQM CMS # | Version Specific Measure ID | Population ID | |
|-------------------|---------------|--------------------------------------|--|--|
| 0043/ 111 | CMS127 v5 | 40280381-52fc-3a32-0153-1a646a2a0bfa | <u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> | E1A2F7D4-0B24-47FC-9369-0700771B2D40 B57EA797-15A1-4C60-B34C-BAE292FE3B76 CBD0926D-6088-44EE-883C-0A0F9E77E2A1 |
| 0105/ 009 | CMS128 v5 | 40280381-51f0-825b-0152-22a112d2172a | <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> | 220EBFDC-C2DF-431B-B14A-8982026B10F1 50E80E87-0A09-4914-8632-BD0797460B34 BA926F92-CA87-43B3-A5C4-FD9FF8B59BB5 02A8409A-7B63-4FE9-B865-87C650DD7459 1E041190-8EE7-46B0-A735-B416C5FA76FC B1C6949E-6854-4182-8BC9-C0EE75B705A2 8C51C326-AE19-462B-9745-6C8ABE92AE27 3A4FA8BB-D8BC-4F66-9367-A71DF03A868D |
| 0389/ 102 | CMS129 v6 | 40280381-503f-a1fc-0151-10de35992766 | <u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> <u>DENEXCEP:</u> | 73B68FA6-B437-4166-8555-F54EDD2BD797 F457BF14-DBBF-4F25-9C27-3F1A77E6341A ECBF5473-BA0F-4662-90A9-BCCF981F92CD 01197FE4-C21E-482E-8A98-05506308A206 |
| 0034/ 113 | CMS130 v5 | 40280381-51f0-825b-0152-22a1e7e81737 | <u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u> | 4D1C7452-B908-4616-B9E9-36C9AA71005B 589C2FD6-6AA9-4AF8-9E1C-973170361917 93AA9C96-E1FE-435B-BA0B-FAF0C5592275 52ADE511-39D4-4CBC-84B6-A82059741359 |
| 0055/ 117 | CMS131 v5 | 40280381-51f0-825b-0152-22a24cdd1740 | <u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> | 321FB2D3-477E-41B7-8BB1-02EE94D08417 98CE7ECC-1F09-4F52-906C-E53EAB545F00 3F48A9B6-7B99-4BF4-AB1E-50DC1FFB9D1A |
| 0564/ 192 | CMS132 v5 | 40280381-52fc-3a32-0153-1a2308830b04 | <u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u> | 1B6E9DCF-15DC-4D57-97DB-F8A8619DDB1B 44BB8D98-F611-48FD-BD3F-05BB998F3754 AE555E04-C8C0-4ABE-AE9B-C5FC2B46F263 A4AE5A30-F400-4849-B054-FB19138AC580 |
| 0565/ 191 | CMS133 v5 | 40280381-52fc-3a32-0153-1f44d4980f0f | <u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u> | D790598C-DC4A-4DF8-8E50-9878AF4E886F 16000621-529F-4F4E-A0A8-ACA703D3B40A 9D7B933B-8A97-4BA3-A546-220E1BF789CC 2F166EEC-4528-474A-966F-D9C8AD49C7AD |
| 0062/ 119 | CMS134 v5 | 40280381-528a-60ff-0152-d7504e61249a | <u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> | A27FD818-3C97-4516-A796-319B89E306AC OCC16DE4-474A-4F6E-BFB8-0104709B1E05 5647E3D0-6550-4B0B-AE76-53CD9E99D20B |
| 2907/ 005 | CMS135 v5 | 40280381-52fc-3a32-0153-62239c5d1ef6 | <u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> <u>DENEXCEP:</u> | F3000871-B8FD-4F74-8892-281C250C11EA C1E20830-ADFE-4D88-B979-166FA0820D5C 49E476F4-E8A1-48A6-B800-A8172073DBFB 41E08783-4358-4E0D-81BE-9616A8F58319 |
| 0108/ 366 | CMS136 v6 | 40280381-51f0-825b-0152-22a639d81762 | <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> | 4DF80BC3-980B-465E-8591-616C7DB74FBD 815F709E-9703-4A6E-860F-CB0096A98B71 FE028D3B-7AB5-418B-A90C-CCFE76F25078 341DBA96-D1CC-409F-99D9-8AB80D03B4A8 9FC61BF5-1EBD-44DE-ADCB-64E70FD3C0A5 62FDAE01-000B-40A0-9C74-4A803BA37A96 425772D2-6437-4F33-9B1E-349E1C6587D9 5097B983-9C47-4F28-9194-C795F42053AF |

| NQF/ Quality # | eCQM CMS # | Version Specific Measure ID | Population ID | |
|-------------------|---------------|--|--|---|
| 0004/ 305 | CMS137 v5 | 40280381-528a-60ff-0152- 8e089ed20376 | <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> | EC2C5F63-AF76-4D3C-85F0-5423F8C28541 BC948E65-B908-493B-B48B-04AC342D3E6C 56BC7FA2-C22A-4440-8652-2D3568852C60 0BBF8596-4CFE-47F4-A0D7-9BEAB94BA4CD EFB5B088-CE10-43DE-ACCD-9913B7AC12A2 94B9555F-8700-45EF-B69F-433EBEDE8051 1511AD34-240C-4F3E-A87B-73511AABFC5C 4A09AB89-D9B8-4DD1-BC4E-78BCFD1C5873 206A891D-C3E1-4660-BF2C-6CDBDF9282FB_ 7FFA49C4-D708-491E-85FE-6855F0A725DF ABC5631A-81C0-45C9-9306-716EAE39CDD8 2654804B-E6DA-4401-AA8B-1FEEACCOC259 |
| 0028/ 226 | CMS138 v5 | 40280381-503f-a1fc-0150- d33f5b0a1b8c | <u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> <u>DENEXCEP:</u> | CA679308-8AF3-4374-91DC-907951440D72 FFC4DDE0-C91C-4235-BF69-E3EF79457FBB 44BEAC3C-8402-46F0-9494-81B33C502F0A 655C9F36-02F7-498B-AE18-D322EA2B3726 |
| 0101/ 318 | CMS139 v5 | 40280381-51f0-825b-0152- 22aae8a21778 | <u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> <u>DENEXCEP:</u> | 0175F89E-9CD7-4CD8-8D7F-38CB825D2BDD A3F77B7C-2398-470D-A359-E2A31539DF91 F0F4094E-CE53-44EE-8CEF-0555479E37B2 CF7E1913-CB4E-42F7-BAEC-0EFFF01ECB17 |
| 0089/ 019 | CMS142 v5 | 40280381-52fc-3a32-0153- 1a31050d0b24 | <u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> <u>DENEXCEP:</u> | 2072A4E8-4486-4A10-AF97-F84ADE0EB62E 2BB9F18C-8E26-44D6-904E-849495A6AF90 BCB8AEEC-EABC-477E-AA6D-6DB34220CD85 608279BD-7620-4FC4-8752-08E3040BA160 |
| 0086/ 012 | CMS143 v5 | 40280381-52fc-3a32-0153- 1a3471e70b34 | <u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> <u>DENEXCEP:</u> | 56091E02-5F5C-4073-9602-D0B5BB93A26E 262ADC93-EE8C-4B95-9EFF-A6223C66ECA8 2902F791-D7AB-49B2-B024-45B1077E0374 1FA6B8AF-0583-418D-852B-9B1D9708DDFF |
| 2908/ 008 | CMS144 v5 | 40280381-52fc-3a32-0153- 1a3981870b45 | <u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> <u>DENEXCEP:</u> | 5ED1A428-A266-47E5-AE4F-DB97A65BB1D4 1E6C181E-91F6-4A61-82E0-7360C81CE3B0 ABBFFB54-E629-4520-875E-F6D18BC651B1 E9280685-6046-438D-AE45-0F7EDBA29C33 |
| 0070/ 007 | CMS145 v5 | 40280381-52fc-3a32-0153- 2e772ecc10c0 | <u>IPOP 1:</u> <u>DENOM 1:</u> <u>NUMER 1:</u> <u>DENEXCEP</u> <u>1:</u> <u>IPOP 2:</u> <u>DENOM 2:</u> <u>NUMER 2:</u> <u>DENEXCEP</u> <u>2:</u> | 27982FD6-7C42-44E7-A871-0BB7F858A6D5 2294F966-EECD-4C61-8D94-D5E4B09BD9BB 02A4DDAC-D615-457A-9304-F1E382D3811C 487E15AB-CDE2-4955-9B93-1A2CDAE6B1F2 2EE8137A-4627-471C-8837-85BDBF665017 CC31BC83-F06C-4381-8A4F-1EEBE9ECF7BC 5C03C433-8F8A-4204-B536-D7381835CE8C F79E2A13-6F9E-4B84-99E0-4603E99C83C3 |
| N/A/ 066 | CMS146 v5 | 40280381-52fc-3a32-0153- 424a166015d1 | <u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u> | 6BE37D85-960E-4C32-AD2D-FE036A058EB4 AE00EE88-B26B-449D-94DE-EA3887BB66E0 A0B43F8B-E6EE-4229-A05D-ECF1B601CEAF 86A8B7E8-EEA2-4C19-8A1B-74B905939505 |
| 0041/ 110 | CMS147 v6 | 40280381-52fc-3a32-0153- 395ce63513af | <u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> <u>DENEXCEP:</u> | FF48C33E-49B3-45D1-AB44-D283F39AE73D 56E05D20-4529-4EB7-8E30-17C95BBC5223 A6516D8B-0A7D-426D-A0EC-F3F4999A2588 9411528A-67EF-439B-9C00-37372B2096E3 |
| N/A/ 281 | CMS149 v5 | 40280381-52fc-3a32-0153- 1a401cc10b57 | <u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> <u>DENEXCEP:</u> | 1D86EE69-7DA7-4A73-8611-2E71176568B6 2DA1439F-7941-411C-8885-91306F0CD9DD 2C2431A3-7DE3-4C97-80C0-4BF96D4880F0 2EE99933-7653-4C53-8506-2A76D0657064 |

| NQF/ Quality # | eCQM CMS # | Version Specific Measure ID | Population ID | |
|-------------------|---------------|--|---|--|
| 0033/ 310 | CMS153 v5 | 40280381-51f0-825b-0152- 22b52da917ba | <u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u> <u>STRAT 1:</u> <u>STRAT 2:</u> | A417988B-395B-4108-9988-1AE443A1E254 F25492A9-8164-4833-9A91-EA160ECC9190 341797C7-3664-41E2-9771-6D85B2085BFA D387E1DC-F06A-4054-87B1-40B863FCF8EC FAA4002D-24D4-4BB8-964C-20BCFEDE528E 91E24063-2360-4A7C-9AAC-549971972FAC |
| 0069/ 065 | CMS154 v5 | 40280381-52fc-3a32-0153- 42810251160f | <u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u> | A5BF87B0-15CF-4012-9E29-DC85010676BC FDE4FCC5-826B-42C6-82BE-1694DD18A48D 8E32E552-A70A-4BBC-A92A-F8D3D48113CF 27037F9E-5C8E-41FE-A973-E2E020C97DA7 |
| 0024/ 239 | CMS155 v5 | 40280381-51f0-825b-0152- 22b695b217dc | <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> | 0ADE9325-3FB7-402F-AD89-34C9F2753D03 933D86C8-2C2B-4AFF-AE81-DF2F9882A3A4 6938F4DD-D5AB-4C40-BA03-EB0F0959615C 61887626-5457-484C-A02D-75EF8547F559 BF2244B9-306A-407C-AB89-1AFF8C559A35 37B55C43-F2BF-4CC2-94A8-73389186206D 25286925-4221-4396-9DE0-60EA606924DF CFB8E3E2-FF4F-4D25-B613-7EC142BAE8A9 A399FA9C-48CF-41E5-812A-3445188B8301 EEAD441F-B3B2-4DC9-A890-B35E14B38EA7 5BC68B5A-E944-46B9-9DC0-0A60FF869D92 E76F6606-1DC9-40DE-8A34-5B4B4E859152 48747E9D-674C-4013-9585-268114190119 208B74F2-6592-4381-BEC1-EB136004C3B2 507F7EC3-D380-48BE-B920-ABB1EB258256 21409D88-B5E3-4745-8DE2-D99DBB9F4DF0 E0CD71AE-5041-45A3-9AAA-9C8506765238 C19E3A3C-0CF3-4FC2-B084-DEAB9B9F9CB9 |
| 0022/ 238 | CMS156 v5 | 40280381-52fc-3a32-0153- 56d2b4f01ae5 | <u>IPOP 1:</u> <u>DENOM 1:</u> <u>NUMER 1:</u> <u>IPOP 2:</u> <u>DENOM 2:</u> <u>NUMER 2:</u> | C7BCE5A3-AC0D-440E-AA29-C98239F37A8B 07F04D61-0383-487E-942C-690BBBC6437D 7A0001AC-4BE0-4FAA-94AE-4843C9FFCA8 BC02D7CE-7133-46C6-8592-658668B09948 00401314-1B01-4896-A9FC-E991CDF29B6B FA7BF805-C21E-4077-B43E-C63F8D17B5CF |
| 0384/ 143 | CMS157 v5 | 40280381-52fc-3a32-0153- 1a4425a90b6c | <u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> | 8494E3CD-7119-4471-9F2F-42540A797498 D1358E7F-9C53-414C-9D4D-DEF7AE9B6E68 95484C04-C98A-4A77-B2A7-9FE583060582 |
| N/A/ 369 | CMS158 v5 | 40280381-5223-eb6b-0152- 6a1558f51bdc | <u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> <u>DENEXCEP:</u> | 328FF8FF-8A53-42CF-A33E-789BC7E0D8ED 9826C75F-8106-44DE-AFB5-47669443C153 4ADA7675-6263-4018-997E-D27CE43A11D6 F77E40ED-F649-4250-B99A-3C35414D8880 |
| 0710/ 370 | CMS159 v5 | 40280381-5118-2f4e-0151- 3a9382cd09ba | <u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u> | 8AAC0F5B-DC7F-4FA3-8DE9-439C663E6B41 1C6771A4-4C26-4E2C-9E10-FF6F1A5D0907 72259A21-874C-4E51-9465-9989019193D0 52837728-F488-4BA5-9921-FFDEEC0F0803 |

| NQF/ Quality # | eCQM CMS # | Version Specific Measure ID | Population ID | |
|-------------------|---------------|--------------------------------------|---|--|
| 0712/ 371 | CMS160 v5 | 40280381-503f-a1fc-0150-afe320c01761 | <u>IPOP 1:</u> <u>DENOM 1:</u> <u>DENEX 1:</u> <u>NUMER 1:</u> | 92656CE7-C9B1-44A8-8778-A8EF1ED90A18 C7DFE664-71AE-4EAD-AB65-CDFCF825A44E 76B54A59-41A9-4664-B85C-F61238AE1DC4 B5FA6E85-0F2E-4674-A3F8-E14D834E73AB |
| | | | <u>IPOP 2:</u> <u>DENOM 2:</u> <u>DENEX 2:</u> <u>NUMER 2:</u> | 757F3066-31E7-45D1-BA50-3EFB27ABB8E5 32635FEA-918B-438F-8421-8A6A14E238E8 29931862-020D-401E-B9E9-953791263D87 33538979-8425-45A4-B724-D74CC0A84EF3 |
| | | | <u>IPOP 3:</u> <u>DENOM 3:</u> <u>DENEX 3:</u> <u>NUMER 3:</u> | 5631A7DF-CA44-4AD4-A691-DC0CED303F6A 9665A8D2-F896-47A9-AA7E-271E9815D3CE 910A0EE9-EFDA-494C-83E9-30DD9E224FFB 2D4D6446-C9CD-4661-868B-C8B9B13A8E08 |
| 0104/ 107 | CMS161 v5 | 40280381-503f-a1fc-0150-de8350a220c3 | <u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> | 9CDC88D7-31DA-44F1-9348-CFDD29F4B20B 1EC810C4-E6D2-4ED6-AE02-A0BF4D675F05 693493EC-2E8E-447C-88A3-FC93AD771AB9 |
| 0068/ 204 | CMS164 v5 | 40280381-52fc-3a32-0153-5736a9401b9f | <u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u> | C3E458D8-8ED4-4F09-A661-6221A2B9355D FE6E1AA0-EE26-4F9E-A2FD-8E36058DCB47 D564DEEE-17E7-4442-921D-436E5113788A 0A3C80F4-A9FF-4BDF-B018-D647E7D777EB |
| 0018/ 236 | CMS165 v5 | 40280381-51f0-825b-0152-22b98cff181a | <u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u> | 3AD33404-E734-4F67-9144-E4B63CB3F4BE E62FEBA3-0F98-460D-93CD-44314D7203A8 55A6D5F3-2029-4896-B850-4C7894161D7D F9FEBF42-4B21-47A9-B03E-D2DA5CF8492B |
| 0052/ 312 | CMS166 v6 | 40280381-51f0-825b-0152-22ba7621182e | <u>IPOP:</u> <u>DENOM:</u> <u>DENEX:</u> <u>NUMER:</u> | 45D3A3ED-A7D6-45B9-AC95-647BFFE7018E 0E27156C-B8EB-48E7-A588-4AB97A0914E1 0E9E3C94-6AA0-4C3C-A311-72CB0F2698B6 13C60632-9CF4-491B-82E9-A06118111C44 |
| 0088/ 018 | CMS167 v5 | 40280381-52fc-3a32-0153-1a4838b80b79 | <u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> <u>DENEXCEP:</u> | 3EB89216-BC0B-4DF7-8B8D-06B9AB68DB49 04507C05-46D4-4D96-9D9D-853CA557F4B2 3186154C-6A01-4FAF-A77F-B5233A3F078C 170B3877-D83D-424C-BD7E-29F644B0A6DC |
| N/A/ 367 | CMS169 v5 | 40280381-503f-a1fc-0150-67942bbc07d7 | <u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> | AB5E9E84-65FB-4566-8254-D3488CA9A169 9656501E-1FAB-4B81-AB59-6646F1114394 3C942ABF-C287-4FBB-AFEE-67BC5FC93BD0 |
| 1365/ 382 | CMS177 v5 | 40280381-503f-a1fc-0151-11602d4d2909 | <u>IPOP:</u> <u>DENOM:</u> <u>NUMER:</u> | 008509CF-85E8-40C0-9434-65FE19EFC090 92E101F9-795A-46DD-BEDE-EA94743AC232 78D2FEEA-45D3-4D08-9227-773E70E3AAD5 |

7 Measure Identifiers

For all CMS eligible clinician 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. Each Improvement Activity included in the QRDA-III report must reference its Activity ID. Each Advancing Care Information Objective and Measure and 2017 Advancing Care Information Transition Objective and Measure included in the QRDA-III report must reference its Measure Identifier.

Table 47: Improvement Activities Identifiers

| Activity Name | Activity Description | Activity ID |
|--|--|-------------|
| Provide 24/7 access to eligible clinicians or groups who have real-time access to patient's medical record | <p>Provide 24/7 access to MIPS eligible clinicians, groups, or care teams for advice about urgent and emergent care (e.g., 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:</p> <p>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);</p> <p>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</p> <p>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</p> | 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 systematic anticoagulation program | Participation in a systematic anticoagulation program (coagulation clinic, patient self-reporting program, patient self-management program) for 60 percent of practice patients in the transition year and 75 percent of practice patients in year 2 who receive anti-coagulation medications (warfarin or other coagulation cascade inhibitors). | IA_PM_1 |
| Anticoagulant management improvements | <p>MIPS eligible clinicians and groups who prescribe oral Vitamin K antagonist therapy (warfarin) must attest that, in the first performance year, 60 percent or more of their ambulatory care patients receiving warfarin are being managed by one or more of these clinical practice improvement activities:</p> <p>Patients are being managed by an anticoagulant management service, that involves systematic and coordinated care*, incorporating comprehensive patient education, systematic INR testing, tracking, follow-up, and patient communication of results and dosing decisions;</p> | IA_PM_2 |

| Activity Name | Activity Description | Activity ID |
|---|--|-------------|
| | <p>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 INR testing, tracking, follow-up, and patient communication of results and dosing decisions;</p> <p>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 INR testing, tracking, follow-up, and patient communication of results and dosing decisions; and/or</p> <p>For patients who demonstrate motivation, competency, and adherence, patients are managed using either a patient self-testing (PST) or patient-self-management (PSM) program.</p> <p>The performance threshold will increase to 75 percent for the second performance year and onward. Clinicians would attest that, 60 percent for the transition year, or 75 percent for the second year, of their ambulatory care patients receiving warfarin participated in an anticoagulation management program for at least 90 days during the performance period.</p> | |
| RHC, IHS or FQHC quality improvement activities | <p>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.</p> <p>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.</p> | IA_PM_3 |
| Glycemic management services | <p>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:</p> <p>For the first performance year, at least 60 percent of medical records with documentation of an individualized glycemic treatment goal that:</p> <p>a) Takes into account patient-specific factors, including, at least 1) age, 2) comorbidities, and 3) risk for hypoglycemia, and</p> <p>b) Is reassessed at least annually.</p> <p>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.</p> | IA_PM_4 |
| Engagement of community for health status improvement | <p>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 review quality concerns for the protection of beneficiaries and the Medicare Trust Fund.</p> | IA_PM_5 |
| Use of toolsets or other resources to | <p>Take steps to improve healthcare disparities, such as Population Health Toolkit or other resources identified by CMS, the Learning and Action</p> | IA_PM_6 |

| Activity Name | Activity Description | Activity ID |
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| close healthcare disparities across communities | 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. | |
| 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 CMMI models such as Million Hearts Campaign | Participation in CMMI models such as the Million Hearts Cardiovascular Risk Reduction Model | IA_PM_8 |
| 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 which includes access to reports that show unique characteristics of eligible professional'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 empanelled 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; plan of care for chronic conditions; and advance care planning; Use condition-specific pathways for care of chronic conditions (e.g., hypertension, diabetes, depression, asthma and heart failure) with | IA_PM_13 |

| Activity Name | Activity Description | Activity ID |
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| | evidence-based protocols to guide treatment to target; 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 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 |
| 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 MIPS eligible clinician or group to close the referral loop or where the referring MIPS eligible clinician or group initiates regular inquiries to specialist for specialist reports which could be documented or noted in the certified 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 |

| Activity Name | Activity Description | Activity ID |
|---|---|-------------|
| 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 |
| Implementation of practices/processes for developing regular individual care plans | Implementation of practices/processes to develop regularly updated individual care plans for at-risk patients that are shared with the beneficiary or caregiver(s). | 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 | <p>Establish standard operations to manage transitions of care that could include one or more of the following:</p> <p>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</p> <p>Partner with community or hospital-based transitional care services.</p> | IA_CC_11 |
| Care coordination agreements that promote improvements in patient tracking across settings | <p>Establish effective care coordination and active referral management that could include one or more of the following:</p> <p>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;</p> <p>Track patients referred to specialist through the entire process; and/or</p> <p>Systematically integrate information from referrals into the plan of care.</p> | IA_CC_12 |
| Practice improvements for bilateral exchange of patient information | <p>Ensure that there is bilateral exchange of necessary patient information to guide patient care that could include one or more of the following:</p> <p>Participate in a Health Information Exchange if available; and/or</p> <p>Use structured referral notes.</p> | IA_CC_13 |
| Practice improvements that engage community | <p>Develop pathways to neighborhood/community-based resources to support patient health goals that could include one or more of the following:</p> <p>Maintain formal (referral) links to community-based chronic disease self-management support programs, exercise programs and other wellness</p> | IA_CC_14 |

| Activity Name | Activity Description | Activity ID |
|---|---|-------------|
| resources to support patient health goals | resources with the potential for bidirectional flow of information; and/or Provide a guide to available community resources. | |
| 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 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 | IA_BE_5 |
| 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 |

| Activity Name | Activity Description | Activity ID |
|---|--|-------------|
| 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. | IA_BE_14 |
| 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 certified 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 | Use group visits for common chronic conditions (e.g., diabetes). | IA_BE_19 |

| Activity Name | Activity Description | Activity ID |
|---|--|-------------|
| conditions (e.g., diabetes). | | |
| 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 | Provide a pre-visit development of a shared visit agenda with the patient. | IA_BE_22 |
| Integration of patient coaching practices between visits | Provide coaching between visits with follow-up on care plan and goals. | IA_BE_23 |
| 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 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 eligible professionals not participating in Maintenance of Certification (MOC) Part IV, new engagement for MOC Part IV, such as IHI Training/Forum Event; National Academy of Medicine, AHRQ Team STEPPS® | 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) | 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 that, 60 percent for the transition year, or 75 percent for the second year, of consultation of prescription drug monitoring program prior to the issuance of a Controlled Substance Schedule II (CSII) opioid prescription that lasts for longer than 3 days. | 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 |

| Activity Name | Activity Description | Activity ID |
|---|---|-------------|
| 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 the Surgical Risk Calculator. | IA_PSPA_8 |
| 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 Bridges to Excellence or other similar program | Participation in other quality improvement programs such as Bridges to Excellence | IA_PSPA_14 |
| Implementation of antibiotic stewardship program | Implementation of an antibiotic stewardship program that measures the appropriate use of antibiotics for several different conditions (URI Rx in children, diagnosis of pharyngitides, Bronchitis Rx in adults) according to clinical guidelines for diagnostics and therapeutics | IA_PSPA_15 |
| 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 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 | Adopt a formal model for quality improvement and create a culture in which all staff actively participates in improvement activities that could include one | IA_PSPA_19 |

| Activity Name | Activity Description | Activity ID |
|---|---|-------------|
| improvement methods, practice changes or other practice improvement processes | <p>or more of the following: 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.</p> | |
| Leadership engagement in regular guidance and demonstrated commitment for implementing practice improvement changes | <p>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 Incorporate population health, quality and patient experience metrics in regular reviews of practice performance.</p> | IA_PSPA_20 |
| Implementation of fall screening and assessment programs | <p>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).</p> | IA_PSPA_21 |
| Engagement of new Medicaid patients and follow-up | <p>Seeing new and follow-up Medicaid patients in a timely manner, including individuals dually eligible for Medicaid and Medicare.</p> | IA_AHE_1 |
| Leveraging a QCDR to standardize processes for screening | <p>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.</p> | IA_AHE_2 |
| Leveraging a QCDR to promote use of patient-reported outcome tools | <p>Participation in a QCDR, demonstrating performance of activities for promoting use of patient-reported outcome (PRO) tools and corresponding collection of PRO data (e.g., use of PQH-2 or PHQ-9 and PROMIS instruments).</p> | IA_AHE_3 |
| Leveraging a QCDR for use of standard questionnaires | <p>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).</p> | IA_AHE_4 |
| Participation on Disaster Medical Assistance Team, registered for 6 months. | <p>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.</p> | IA_ERP_1 |
| Participation in a 60-day or greater effort to support domestic or international humanitarian needs. | <p>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.</p> | IA_ERP_2 |

| Activity Name | Activity Description | Activity ID |
|--|---|-------------|
| 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 |
| Implementation of integrated PCBH model | <p>Offer integrated behavioral health services to support patients with behavioral health needs, dementia, and poorly controlled chronic conditions that could include one or more of the following:</p> <ul style="list-style-type: none"> 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 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 certified health information technology functionality to support active care management and outreach to patients in treatment; <p>and/or</p> <p>Integrate behavioral health and medical care plans and facilitate integration through co-location of services when feasible.</p> | 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 |
| Electronic submission of Patient Centered Medical Home accreditation | N/A | IA_PCMH |

Table 48: Advancing Care Information Objectives and Measures Identifiers

| Objective | Measure Identifier | Measure | Reporting Metric |
|--|--------------------|---|-----------------------|
| Protect Patient Health Information | ACI_PPHI_1 | Security Risk Analysis | Yes/No |
| Electronic Prescribing | ACI_EP_1 | ePrescribing | Numerator/Denominator |
| Patient Electronic Access | ACI_PEA_1 | Provide Patient Access | Numerator/Denominator |
| | ACI_PEA_2 | Patient-Specific Education | Numerator/Denominator |
| Coordination of Care Through Patient Engagement | ACI_CCTPE_1 | View, Download or Transmit (VDT) | Numerator/Denominator |
| | ACI_CCTPE_2 | Secure Messaging | Numerator/Denominator |
| | ACI_CCTPE_3 | Patient-Generated Health Data | Numerator/Denominator |
| Health Information Exchange | ACI_HIE_1 | Send a Summary of Care | Numerator/Denominator |
| | ACI_HIE_2 | Request/Accept Summary of Care | Numerator/Denominator |
| | ACI_HIE_3 | Clinical Information Reconciliation | Numerator/Denominator |
| Public Health and Clinical Data Registry Reporting | ACI_PHCDRR_1 | Immunization Registry Reporting | Yes/No |
| | ACI_PHCDRR_2 | (Optional) Syndromic Surveillance Reporting | Yes/No |
| | ACI_PHCDRR_3 | (Optional) Electronic Case Reporting | Yes/No |
| | ACI_PHCDRR_4 | (Optional) Public Health Registry Reporting | Yes/No |
| | ACI_PHCDRR_5 | (Optional) Clinical Data Registry Reporting | Yes/No |

Table 49: 2017 Advancing Care Information Transition Objectives and Measures (for 2017 performance period only) Identifiers

| Objective | Measure Identifier | Measure for MIPS (in 2017 only) | Reporting Metric |
|------------------------------------|--------------------|-----------------------------------|-----------------------|
| Protect Patient Health Information | ACI_TRANS_PPHI_1 | Security Risk Analysis | Yes/No |
| Electronic Prescribing | ACI_TRANS_EP_1 | e-Prescribing | Numerator/Denominator |
| Patient Electronic Access | ACI_TRANS_PEA_1 | Provide Patient Access | Numerator/Denominator |
| | ACI_TRANS_PEA_2 | View, Download, or Transmit (VDT) | Numerator/Denominator |
| Patient-Specific Education | ACI_TRANS_PSE_1 | Patient-Specific Education | Numerator/Denominator |

| | | | |
|-----------------------------|--------------------|----------------------------------|-----------------------|
| Secure Messaging | ACI_TRANS_SM_1 | Secure Messaging | Numerator/Denominator |
| Health Information Exchange | ACI_TRANS_HIE_1 | Health Information Exchange | Numerator/Denominator |
| Medication Reconciliation | ACI_TRANS_MR_1 | Medication Reconciliation | Numerator/Denominator |
| Public Health Reporting | ACI_TRANS_PHCDRR_1 | Immunization Registry Reporting | Yes/No |
| | ACI_TRANS_PHCDRR_2 | Syndromic Surveillance Reporting | Yes/No |
| | ACI_TRANS_PHCDRR_3 | Specialized Registry Reporting | Yes/No |

APPENDIX

8 Troubleshooting and Support

8.1 Resources

The following provide additional information:

- **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/>
- **eCQI Resource Center** is the one-stop shop for the most current resources to support electronic clinical quality improvement: <https://ecqi.healthit.gov/>

8.2 Support

Table 50: Support Contact Information

| Contact | Org. | Phone | Email | Role | Responsibility |
|---------------------|------|----------------------------------|--|-------------------|--|
| CMS IT Service Desk | CMS | (410) 786-2580 (800) 562-1963 | CMS_IT_Service_Desk@cms.hhs.gov | Help desk support | 1 st level user support & problem reporting |

8.3 Errata or Enhancement Requests

Table 51: Errata or Enhancement Request Location

| Contact | Organization | URL | Purpose |
|---|--------------|---|---|
| HL7 QRDA-III, STU Release 2 Comments page | HL7 | http://www.hl7.org/dstucomments/showdetail.cfm?dstuid=184 | 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 52: 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 or both (@codeSystem and @nullFlavor) but SHALL NOT have both @code and @nullFlavor and SHALL NOT have @codeSystem 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 53: NPI Validation Rules and Table 54: TIN Validation Rules list the validation rules performed on the NPI and TIN.

Table 53: 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 54: 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 CMS QRDA-III Implementation Guide Changes to QRDA-III DSTU R2 Base Standard

This table lists all changes made to QRDA-III of this 2017 guide. The "Base Standard" is the *HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture, Category III, STU Release 2*.

Table 55: 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 ="2016-11-01" (CONF:2233-711305). |
| 711174 711246 | 5.1 | SHALL contain exactly one [1..1] confidentialityCode , which SHOULD be selected from ValueSet HL7 BasicConfidentialityKind urn:oid:2.16.840.1.113883.1.11.16926 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:2.16.840.1.113883.1.11.11526 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). |
| 711159 | 5.1.4 | n/a | This informationRecipient SHALL contain exactly one [1..1] intendedRecipient (CONF: 2233-711159). |

| CONF. # | Section | Base Standard | Changed To |
|---------|---------|--|---|
| 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). |
| 7111248 | 5.1.4 | n/a | If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="CPCPLUS", then ClinicalDocument/participant/@typeCode="LOC" SHALL be present (CONF: 2233-711248). |
| 711340 | 5.1.4 | n/a | If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="CPCPLUS", then QRDA Category III Measure Section – CMS (V2) SHALL be present (CONF:2233-711340). |
| 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). |

| CONF. # | Section | Base Standard | Changed To |
|---------|---------|--|--|
| 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+ Participant (CONF:2233-711155). |
| 711156 | 5.1.7 | n/a | This id SHALL contain exactly one [1..1] @extension (CONF:2233-711156). Note: This is the CPC+ Participant ID assigned to the CPC+ participant. NOTE: The CPC+ Participant ID is yet to be determined. |
| 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). |

| CONF. # | Section | Base Standard | Changed To |
|---------|---------|---|--|
| 711220 | 51.8 | This serviceEvent SHALL contain at least one [1..*] performer (CONF:18173). | This serviceEvent SHALL contain at least one [1..*] performer (CONF: 2233-711220). Note: All providers seeking credit for CMS program reporting are listed as performers. For CPC+ reporting, only CPC+ Practice Site providers are listed as performers. |
| 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 the Group Practice Reporting Option (GPRO). For GPRO, 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 |
| 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 GPRO 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). | SHALL contain exactly one [1..1] @extension (CONF:2233-711170). Note: This is the provider's NPI, it is only present when this is not MIPS GPRO reporting. |
| 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). |

| CONF. # | Section | Base Standard | Changed To |
|----------------------------|---------|--|--|
| 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:2.16.840.1.11388 3.10.20.27.2.2) (CONF:17282). | SHALL contain exactly one [1..1] QRDA Category III Reporting Parameters Section - CMS (V2) (templateId:2.16.840.1.11388 3.10.20.27.2.6) (CONF:2233-711141). |
| 711142 | 5.1.10 | SHALL contain exactly one [1..1] QRDA Category III Measure Section (templateId:2.16.840.1.11388 3.10.20.27.2.1) (CONF:17301). | SHALL contain exactly one [1..1] QRDA Category III Measure Section - CMS (V2) (templateId:2.16.840.1.11388 3.10.20.27.2.3) (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 ="2016-11-01" (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) (templateId:2.16.840.1.11388 3.10.20.27.3.17) (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). |

| CONF. # | Section | Base Standard | Changed To |
|----------------------------|---------|---|--|
| 711303 711304 711175 | 5.2.4 | n/a | <p>SHALL contain exactly one [1..1] entry (CONF:2233-711303) such that it</p> <p>SHALL contain exactly one [1..1] @typeCode="DRIV" Is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.10 02 STATIC) (CONF:2233-711304).</p> <p>SHALL contain exactly one [1..1] Reporting Parameters Act - CMS (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10 .20.27.3.23:2016-11-01) (CONF:2233-711175).</p> |
| 711262 711263 | 5.3.5 | n/a | <p>SHALL contain exactly one [1..1] templateId (CONF:2233-711262) such that it</p> <p>SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10 .20.27.3.24" (CONF:1109-711263)</p> |
| 711244 711245 | 5.3.5 | n/a | <p>SHALL contain exactly one [1..1] statusCode (CONF:1109-711244).</p> <p>This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14) (CONF: 1109-711245).</p> |
| 711264 711265 | 5.3.6 | n/a | <p>SHALL contain exactly one [1..1] templateId (CONF:1109-711264) such that it</p> <p>SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10 .20.27.3.26" (CONF:1109-711265).</p> |
| 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 | <p>SHALL contain exactly one [1..1] statusCode (CONF:1109-711241).</p> <p>This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14) (CONF: 1109-711242).</p> |

| CONF. # | Section | Base Standard | Changed To |
|----------------------------|---------|--|---|
| 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). |
| 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 |

| CONF. # | Section | Base Standard | Changed To |
|---------|---------|--|---|
| 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 |
| 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- 03-01) (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. |

| CONF. # | Section | Base Standard | Changed To |
|----------------------------|---------|--|---|
| 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). |
| 711296 | 5.3.11 | SHALL contain exactly one [1..1] Measure Data (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.5:2016-02-01) (CONF:18426). | SHALL contain exactly one [1..1] Measure Data - CMS (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.16:2016-11-01) (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 ="2016-03-01" (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 2.16.840.1.113883.3.249.14.102 (CONF:2233-711231). |
| 711229 | 5.3.12 | n/a | This value SHALL contain exactly one [1..1] @nullFlavor ="OTH" (CONF:2233-711229). |

| CONF. # | Section | Base Standard | Changed To |
|----------------------------|----------|---|--|
| 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] <u>Aggregate Count - CMS</u> (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24) (CONF:2233-711199). |
| 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). |

| CONF. # | Section | Base Standard | Changed To |
|----------------------------|---------|--|---|
| 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). |
| 711272 711273 711322 | 5.3.15 | n/a | SHALL contain exactly one [1..1] templateId (CONF:2233-711272) such that it SHALL contain exactly one [1..1] @root ="2.16.840.1.113883.10.20.27.3.23" (CONF:2233-711273). SHALL contain exactly one [1..1] @extension ="2016-11-01" (CONF:2233-711322). |
| 711292 | 5.3.15 | n/a | THIS LOW SHALL contain exactly one [1..1] @value ="20170101" (CONF:2233-711292). |
| 711293 | 5.3.15 | n/a | This high SHALL contain exactly one [1..1] @value ="20171231" (CONF:2233-711293). |
| 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). |

| CONF. # | Section | Base Standard | Changed To |
|----------------------------|---------|---|---|
| 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 for 2017 CMS QRDA Eligible Clinician Implementation Guide from the 2016 CMS QRDA Implementation Guide

This appendix summarizes the changes made in this 2017 CMS QRDA Eligible Clinician Implementation Guide since the release of 2016 CMS QRDA Implementation Guide (July 8, 2015) and the 2016 CMS QRDA IG Appendix (February 26, 2016).

Table 56: Changes Made for 2017 CMS Eligible Clinician QRDA IG from 2016 CMS QRDA IG Part B

| | 2017 CMS QRDA-III EC IG | 2016 CMS QRDA IG Part B |
|--------------------------------------|---|--|
| Base standard | HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture, Category III, STU Release 2 | HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture, Category III, DSTU Release 1 |
| 4 QRDA Category III Submission Rules | Language is updated to reflect the requirement updates for the 2017 reporting year. | 7 QRDA Category III Submission Rules |
| 5.1.4 informationRecipient | 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). If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="CPCPLUS", then ClinicalDocument/participant/@type Code="LOC" SHALL be present (CONF:2233-711248). | 8.1.4 informationRecipient This id SHALL contain exactly one [1..1] @extension, which SHALL be selected from ValueSet QRDA-III CMS Program Name 2.16.840.1.113883.3.249.14.101 STATIC (CONF:711162). If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="CPC", then ClinicalDocument/participant/@type Code="LOC" SHALL be present (CONF:711248). |
| QRDA-III CMS Program Name value set | CPCPLUS MIPS | CPC PQRS_MU_INDIVIDUAL PQRS_MU_GROUP MU_ONLY |

| | 2017 CMS QRDA-III EC IG | 2016 CMS QRDA IG Part B |
|--|--|--|
| 5.1.7 participant is Location | <p>This associatedEntity SHALL contain exactly one [1..1] id (CONF:2233-711154).</p> <p>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 ARM Entity Identifier.</p> <p>This id SHALL contain exactly one [1..1] @extension (CONF:2233-711156). Note: This is the CPCPLUS ARM Entity Identifier assigned to the CPC+ practice site.</p> | <p>8.1.7 participant is Location This associatedEntity SHALL contain exactly one [1..1] id (CONF:711154). This id SHALL contain exactly one [1..1] @root="2.16.840.1.113883.3.249.5.1" CPC Practice Site (CONF:711155). Note: This OID contained in the @root (2.16.840.1.113883.3.249.5.1) designates that the @extension must hold a CPC Practice Site ID.</p> <p>This id SHALL contain exactly one [1..1] @extension (CONF:711156). Note: This is the CPC Practice Site ID assigned to the CPC Practice Site.</p> |
| 5.2.1 QRDA Category III Measure Section – CMS (V2) | <p>Conforms to QRDA Category III Measure Section (V3) template (identifier: urn:h17ii:2.16.840.1.113883.10.20.27.2.1:2016-09-01).</p> <p>SHALL contain exactly one [1..1] templateId (CONF:2233-711276) such that it</p> <p>SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.2.3" (CONF:2233-711277).</p> <p>SHALL contain exactly one [1..1] @extension="2016-11-01" (CONF:2233-711286).</p> <p>SHALL contain exactly one [1..1] templateId (CONF:2233-17284) such that it</p> <p>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 (V3) templateId</p> <p>SHALL contain exactly one [1..1] @extension="2016-09-01" (CONF:2233-711285).</p> | <p>8.2.1 QRDA Category III Measure Section (CMS EP)</p> <p>Conforms to QRDA Category III Measure Section template (2.16.840.1.113883.10.20.27.2.1).</p> <p>SHALL contain exactly one [1..1] templateId (CONF:711276) such that it</p> <p>SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.2.3" (CONF:711277).</p> <p>SHALL contain exactly one [1..1] templateId (CONF:17284) such that it</p> <p>SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.2.1" (CONF:17285). Note: QRDA Category III Measure Section templateId</p> |

| | 2017 CMS QRDA-III EC IG | 2016 CMS QRDA IG Part B |
|--|---|--|
| 5.2.2 QRDA Category III Reporting Parameters Section - CMS (V2) | <p>Updated template description. "For Program Year 2017, the reporting parameter start date SHALL be "20170101" (i.e. 01/01/2017), and the reporting parameter end date SHALL be "20171231" (i.e., 12/31/2017)."</p> <p>SHALL contain exactly one [1..1] <code>templateId</code> (CONF:2233-711278) such that it</p> <p>SHALL contain exactly one [1..1] <code>@root="2.16.840.1.113883.10.20.27.2.6"</code> (CONF:2233-711279).</p> <p>SHALL contain exactly one [1..1] <code>@extension="2016-11-01"</code> (CONF:2233-711306).</p> <p>SHALL contain exactly one [1..1] <code>entry</code> (CONF:2233-711303) such that it</p> <p>SHALL contain exactly one [1..1] Reporting Parameters Act - CMS (V2) (<code>identifier: urn:h17ii:2.16.840.1.113883.10.20.27.3.23:2016-11-01</code>) (CONF:2233-711175).</p> | <p>8.2.2 QRDA Category III Reporting Parameters Section (CMS EP)</p> <p>For Program Year 2016, the reporting parameter start date SHALL be "20160101" (i.e. 01/01/2016), and the reporting parameter end date SHALL be "20161231" (i.e., 12/31/2016).</p> <p>SHALL contain exactly one [1..1] <code>templateId</code> (CONF:711278) such that it</p> <p>SHALL contain exactly one [1..1] <code>@root="2.16.840.1.113883.10.20.27.2.6"</code> (CONF:711279).</p> <p>SHALL contain exactly one [1..1] <code>entry</code> (CONF:711285) such that it</p> <p>SHALL contain exactly one [1..1] Reporting Parameters Act (CMS EP) (<code>templateId:2.16.840.1.113883.10.20.27.3.23</code>) (CONF:711175).</p> |
| 5.2.3 Improvement Activity Section | New section | n/a |
| 5.2.4 Advancing Care Information Section | New section | n/a |
| 5.3.1 Advancing care information Measure Performed Measure Reference and Results | n/a | n/a |
| 5.3.2 Advancing care information Numerator Denominator Type Measure Denominator Data | New section | n/a |
| 5.3.3 Advancing care information Numerator Denominator Type Measure Numerator Data | New section | n/a |

| | 2017 CMS QRDA-III EC IG | 2016 CMS QRDA IG Part B |
|--|---|---|
| 5.3.4 Advancing care information Numerator Denominator Type Measure Reference and Results | New section | n/a |
| 5.3.7 Ethnicity Supplemental Data Element – CMS (V2) | <p>Conforms to Ethnicity Supplemental Data Element (V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.7:2016-09-01).</p> <p>SHALL contain exactly one [1..1] templateId (CONF:1109-711253) such that it</p> <p>SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.22" (CONF:1109-711254).</p> <p>SHALL contain exactly one [1..1] @extension="2016-11-01" (CONF:2233-711312).</p> <p>SHALL contain exactly one [1..1] templateId (CONF:1109-18218) such that it</p> <p>SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.7" (CONF:1109-18219).</p> <p>Note: Ethnicity Supplemental Data Element (V2) templateId</p> <p>SHALL contain zero or one [0..1] @extension="2016-09-01" (CONF:2233-21176).</p> <p>SHALL contain exactly one [1..1] code (CONF:1109-18220).</p> <p>This code SHALL contain exactly one [1..1] @code="69490-1" Ethnic (CONF:2233-18221).</p> <p>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).</p> | <p>8.3.3 Ethnicity Supplemental Data Element (CMS EP)</p> <p>SHALL contain exactly one [1..1] templateId (CONF:711253) such that it</p> <p>SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.22" (CONF:711254).</p> <p>SHALL contain exactly one [1..1] templateId (CONF:18218) such that it</p> <p>SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.7" (CONF:18219).</p> <p>Note: Ethnicity Supplemental Data Element templateId</p> <p>SHALL contain exactly one [1..1] code (CONF:18220).</p> <p>This code SHALL contain exactly one [1..1] @code="364699009" Ethnic Group (CodeSystem: SNOMED CT 2.16.840.1.113883.6.96) (CONF:18221).</p> |
| 5.3.8 Improvement Activity Performed Measure Reference and Results | New section | n/a |

| | 2017 CMS QRDA-III EC IG | 2016 CMS QRDA IG Part B |
|-------------------------------|---|--|
| 5.3.9 Measure Data – CMS (V2) | <p>Conforms to Measure Data (V3) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.5:2016-09-01).</p> <p>SHALL contain exactly one [1..1] templateId (CONF:2233-711266) such that it</p> <p>SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.16" (CONF:2233-711267).</p> <p>SHALL contain exactly one [1..1] @extension="2016-11-01" (CONF:2233-711287).</p> <p>SHALL contain exactly one [1..1] templateId (CONF:2233-17912) such that it</p> <p>SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.5" (CONF:2233-17913).</p> <p>Note: Measure Data (V3) templateId</p> <p>SHALL contain exactly one [1..1] @extension="2016-09-01" (CONF:2233-711288).</p> | <p>8.3.4 Measure Data (CMS EP) Conforms to Measure Data template (2.16.840.1.113883.10.20.27.3.5).</p> <p>SHALL contain exactly one [1..1] templateId (CONF:711266) such that it</p> <p>SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.16" (CONF:711267).</p> <p>SHALL contain exactly one [1..1] templateId (CONF:17912) such that it</p> <p>SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.5" (CONF:17913).</p> <p>Note: Measure Data templateId</p> |
| 5.3.10 Measure Performed | New section | n/a |

| | 2017 CMS QRDA-III EC IG | 2016 CMS QRDA IG Part B |
|---|--|---|
| 5.3.11 Measure Reference and Results - CMS (V2) | <p>Conforms to Measure Reference and Results (V3) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.1:2016-09-01).</p> <p>SHALL contain exactly one [1..1] templateId (CONF:2233-711268) such that it</p> <p>SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.17" (CONF:2233-711269).</p> <p>SHALL contain exactly one [1..1] @extension="2016-11-01" (CONF:2233-711297).</p> <p>SHALL contain exactly one [1..1] templateId (CONF:2233-17908) such that it</p> <p>SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.1" (CONF:2233-17909).</p> <p>Note: Measure Reference and Results (V3) templateId</p> <p>SHALL contain exactly one [1..1] @extension="2016-09-01" (CONF:2233-21170).</p> | <p>8.3.5 Measure Reference and Results - CMS EP Conforms to Measure Reference and Results template (2.16.840.1.113883.10.20.27.3.1).</p> <p>SHALL contain exactly one [1..1] templateId (CONF:711268) such that it a. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.17" (CONF:711269).</p> <p>SHALL contain exactly one [1..1] templateId (CONF:17908) such that it a. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.1"</p> |

| | 2017 CMS QRDA-III EC IG | 2016 CMS QRDA IG Part B |
|--|--|--|
| 5.3.12 Payer Supplemental Data Element - CMS(V2) | <p>Conforms to Payer Supplemental Data Element (V2) template (<code>identifier</code>: <code>urn:hl7ii:2.16.840.1.113883.10.20.27.3.9:2016-02-01</code>).</p> <p>SHALL contain exactly one [1..1] <code>templateId</code> (CONF:2233-711270) such that it</p> <p>SHALL contain exactly one [1..1] <code>@root</code>="2.16.840.1.113883.10.20.27.3.18" (CONF:2233-711271).</p> <p>SHALL contain exactly one [1..1] <code>@extension</code>="2016-03-01" (CONF:2233-711299).</p> <p>SHALL contain exactly one [1..1] <code>templateId</code> (CONF:2233-18237) such that it</p> <p>SHALL contain exactly one [1..1] <code>@root</code>="2.16.840.1.113883.10.20.27.3.9" (CONF:2233-18238).</p> <p>Note: Payer Supplemental Data Element templateId (QRDA III)</p> <p>SHALL contain exactly one [1..1] <code>@extension</code>="2016-02-01" (CONF:2233-21157).</p> <p>SHALL contain exactly one [1..1] <code>code</code> (CONF:2233-21158).</p> <p>This code SHALL contain exactly one [1..1] <code>@code</code>="48768-6" Payment Source (CONF:2233-21159).</p> <p>This code SHALL contain exactly one [1..1] <code>@codeSystem</code>="2.16.840.1.113883.6.1" (CodeSystem: LOINC <code>urn:oid:2.16.840.1.113883.6.1</code>) (CONF:2233-21165).</p> | <p>8.3.6 Payer Supplemental Data Element (CMS EP) Conforms to Payer Supplemental Data Element template (<code>2.16.840.1.113883.10.20.27.3.9</code>).</p> <p>SHALL contain exactly one [1..1] <code>templateId</code> (CONF:711270) such that it</p> <p>SHALL contain exactly one [1..1] <code>@root</code>="2.16.840.1.113883.10.20.27.3.18" (CONF:711271).</p> <p>SHALL contain exactly one [1..1] <code>templateId</code> (CONF:12561) such that it a. SHALL contain exactly one [1..1] <code>@root</code>="2.16.840.1.113883.10.20.24.3.55" (CONF:12562).</p> <p>Note: Payer Characteristic Payer templateId</p> <p>SHALL contain exactly one [1..1] <code>templateId</code> (CONF:18237) such that it a. SHALL contain exactly one [1..1] <code>@root</code>="2.16.840.1.113883.10.20.27.3.9" (CONF:18238).</p> <p>Note: Payer Supplemental Data Element templateId</p> |
| 5.3.13 Performance Rate | New section | n/a |

| | 2017 CMS QRDA-III EC IG | 2016 CMS QRDA IG Part B |
|---|---|---|
| <p>5.3.14 Race Supplemental Data Element – CMS (V2)</p> | <p>Conforms to Race Supplemental Data Element (V2) template (<code>identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.8:2016-09-01</code>).</p> <p>SHALL contain exactly one [1..1] <code>templateId</code> (CONF:2233-711257) such that it</p> <p>SHALL contain exactly one [1..1] <code>@root="2.16.840.1.113883.10.20.27.3.19"</code> (CONF:2233-711258).</p> <p>SHALL contain exactly one [1..1] <code>@extension="2016-11-01"</code> (CONF:2233-711315).</p> <p>SHALL contain exactly one [1..1] <code>templateId</code> (CONF:2233-18225) such that it</p> <p>SHALL contain exactly one [1..1] <code>@root="2.16.840.1.113883.10.20.27.3.8"</code> (CONF:2233-18226).</p> <p>Note: Race Supplemental Data Element (V2) <code>templated</code></p> <p>SHALL contain zero or one [0..1] <code>@extension="2016-09-01"</code> (CONF:2233-21178).</p> <p>SHALL contain exactly one [1..1] <code>code</code> (CONF:2233-18227).</p> <p>This code SHALL contain exactly one [1..1] <code>@code="72826-1"</code> Race (CONF:2233-18228).</p> <p>This code SHALL contain exactly one [1..1] <code>@codeSystem="2.16.840.1.113883.6.1"</code> (CodeSystem: LOINC <code>urn:oid:2.16.840.1.113883.6.1</code>) (CONF:2233-21167).</p> | <p>8.3.8 Race Supplemental Data Element (CMS EP) Conforms to Race Supplemental Data Element template (<code>2.16.840.1.113883.10.20.27.3.8</code>).</p> <p>SHALL contain exactly one [1..1] <code>templateId</code> (CONF:711257) such that it</p> <p>SHALL contain exactly one [1..1] <code>@root="2.16.840.1.113883.10.20.27.3.19"</code> (CONF:711258).</p> <p>SHALL contain exactly one [1..1] <code>templateId</code> (CONF:18225) such that it</p> <p>SHALL contain exactly one [1..1] <code>@root="2.16.840.1.113883.10.20.27.3.8"</code> (CONF:18226).</p> <p>Note: Race Supplemental Data Element <code>templated</code></p> <p>SHALL contain exactly one [1..1] <code>code</code> (CONF:18227).</p> <p>This code SHALL contain exactly one [1..1] <code>@code="103579009"</code> Race (CodeSystem: SNOMED CT <code>2.16.840.1.113883.6.96</code>) (CONF:18228).</p> |

| | 2017 CMS QRDA-III EC IG | 2016 CMS QRDA IG Part B |
|--|--|---|
| 5.3.15 Reporting Parameters Act - CMS (V2) | <p>SHALL contain exactly one [1..1] templateId (CONF:2233-711272) such that it</p> <p>SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.23" (CONF:2233-711273).</p> <p>SHALL contain exactly one [1..1] @extension="2016-11-01" (CONF:2233-711322).</p> <p>SHALL contain exactly one [1..1] effectiveTime (CONF:2233-3273).</p> <p>This effectiveTime SHALL contain exactly one [1..1] low (CONF:2233-3274).</p> <p>This low SHALL contain exactly one [1..1] @value="20170101" (CONF:2233-711292).</p> <p>Note: For Program Year 2017, the reporting parameter start date SHALL be "20170101".</p> <p>This effectiveTime SHALL contain exactly one [1..1] high (CONF:2233-3275).</p> <p>This high SHALL contain exactly one [1..1] @value="20171231" (CONF:2233-711293).</p> <p>Note: For Program Year 2017, the reporting parameter end date SHALL be "20171231".</p> | <p>8.3.9 Reporting Parameters Act (CMS EP)</p> <p>SHALL contain exactly one [1..1] templateId (CONF:711272) such that it a. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.23" (CONF:711273).</p> <p>SHALL contain exactly one [1..1] effectiveTime (CONF:3273).</p> <p>This effectiveTime SHALL contain exactly one [1..1] low (CONF:3274). i. This low SHALL contain exactly one [1..1] @value="20160101" (CONF:711292).</p> <p>Note: For Program Year 2016, the reporting parameter start date SHALL be "20160101".</p> <p>This effectiveTime SHALL contain exactly one [1..1] high (CONF:3275).</p> <p>This high SHALL contain exactly one [1..1] @value="20161231" (CONF:711293). Note: For Program Year 2016, the reporting parameter start date SHALL be "20161231".</p> |

| | 2017 CMS QRDA-III EC IG | 2016 CMS QRDA IG Part B |
|---|---|--|
| 5.3.17 Sex Supplemental Data Element – CMS (V2) | <p>Conforms to Sex Supplemental Data Element (V3) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.6:2016-09-01).</p> <p>SHALL contain exactly one [1..1] templateId (CONF:2233-711259) such that it</p> <p>SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.21" (CONF:2233-711260).</p> <p>SHALL contain exactly one [1..1] @extension="2016-11-01" (CONF:2233-711301).</p> <p>SHALL contain exactly one [1..1] templateId (CONF:2233-18232) such that it</p> <p>SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.6" (CONF:2233-18233).</p> <p>Note: Sex Supplemental Data Element (V3) templateId</p> <p>SHALL contain exactly one [1..1] @extension="2016-09-01" (CONF:2233-21160).</p> <p>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).</p> | <p>8.3.11 Sex Supplemental Data Element (CMS EP) Conforms to Sex Supplemental Data Element template (2.16.840.1.113883.10.20.27.3.6).</p> <p>SHALL contain exactly one [1..1] templateId (CONF:711259) such that it a. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.21" (CONF:711260).</p> <p>SHALL contain exactly one [1..1] templateId (CONF:18232) such that it a. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.6" (CONF:18233). Note: Sex Supplemental Data Element templateId</p> <p>SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet ONC Administrative Sex Value Set 2.16.840.1.113762.1.4.1 DYNAMIC (CONF:711291). Certification validators will allow use of Value Set - ONC Administrative Sex 2.16.840.1.113762.1.4.1 or Value Set - Administrative Gender (HL7 V3) 2.16.840.1.113883.1.11.1 (CONF:711261).</p> |
| 6 eCQM Specifications for Eligible Professionals April 2016 UUID List | New section | n/a |
| 7 Measure Identifiers | New section | n/a |

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 |
| DSTU | Draft Standard for Trial Use |
| EC | Eligible Clinician |
| eCQI | electronic clinical quality improvement |
| eCQM | electronic Clinical Quality Measure |
| EHR | electronic health record |
| GPRO | Group Practice Reporting Option |
| HIC | Health Insurance Claim |
| 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 |

| Acronym | Literal Translation |
|-----------|---|
| PHDSC | Public Health Data Standards Consortium |
| QDM | Quality Data Model |
| QRDA | Quality Reporting Data Architecture |
| QRDA-III | Quality Reporting Data Architecture Category III |
| SNOMED CT | Systematized Nomenclature of Medicine, Clinical Terms |
| 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. |
| eMeasure | A standardized performance measure in the Health Quality Measures Format (HQMF). |
| 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

CMS, eCQM Library. http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/eCQM_Library.html

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

HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture, Category I, Release 1, Draft Standard for Trial Use Release 3.1 (QRDA-I R3.1). March 2016.
http://www.hl7.org/implement/standards/product_brief.cfm?product_id=35

HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture, Category III, Release 1, Draft Standard for Trial Use, Release 1.1, 2016
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>