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Eligible Clinicians and Eligible Professionals Programs

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) QRDA-III Submissions 14
4.3 Identifiers 14
4.4 Succession Management 14
4.4.1 Final Action Processing used in Succession Management 15
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 16
4.6 Performance Period and Performance Rate 16
4.7 Templates Versioning and Validations 17
5 QRDA Category III Validation 18
5.1 Document-Level Template: QRDA Category III Report - CMS (V2) 18
5.1.1 recordTarget 19
5.1.2 author 19
5.1.3 custodian 21
5.1.4 informationRecipient 21
5.1.5 legalAuthenticator 22
5.1.6 participant is Device 23
5.1.7 participant is Location 24
5.1.8 documentationOf 25
5.1.9 authorization 27
5.1.10 component 28
5.2 Section-Level Templates 29
5.2.1 Measure Section 29
5.2.1.1 Advancing Care Information Section (V2) 30
5.2.1.2 Improvement Activity Section (V2) 31
5.2.1.3 QRDA Category III Measure Section - CMS (V2) 32
5.3 Entry-Level Templates 34
5.3.1 Advancing Care Information Measure Performed Measure Reference and Results 34
5.3.2 Advancing Care Information Numerator Denominator Type Measure Reference and Results (V2) 37
5.3.3 Advancing Care Information Numerator Denominator Type Measure Denominator Data 40
5.3.4 Advancing Care Information Numerator Denominator Type Measure Numerator Data 43
5.3.5 Aggregate Count 45
5.3.5.1 Aggregate Count - CMS 47
5.3.6 Continuous Variable Measure Value - CMS 49

5.3.7 Ethnicity Supplemental Data Element - CMS (V2) 51
5.3.8 Improvement Activity Performed Measure Reference and Results 54
5.3.9 Measure Data - CMS (V2) 56
5.3.10 Measure Performed 63
5.3.11 Measure Reference and Results - CMS (V2) 64
5.3.12 Payer Supplemental Data Element - CMS (V2) 68
5.3.13 Performance Rate 72
5.3.13.1 Performance Rate for Proportion Measure – CMS (V2) 73
5.3.14 Race Supplemental Data Element - CMS (V2) 77
5.3.15 Reporting Parameters Act 79
5.3.16 Reporting Stratum - CMS 81
5.3.17 Sex Supplemental Data Element - CMS (V2) 84

6 eCQM Specifications for Eligible Clinicians and Eligible Professionals January 2017 Addendum to the April 2016 UUID List 87

7 Measure Identifiers 93

APPENDIX 106

8 Troubleshooting and Support 106
8.1 Resources 106
8.2 Support 106
8.3 Errata or Enhancement Requests 106

9 Null Flavor Validation Rules for Data Types 107

10 NPI and TIN Validation Rules 108

11 Change Log – CMS QRDA-III Implementation Guide Changes to QRDA-III STU R2.1 Base Standard 109

12 Change Log – Changes from the 2016 CMS QRDA Implementation Guide 121

13 Change Log – Changes from the 2017 CMS QRDA III Eligible Clinicians and EPs IG v0.1 134

14 Acronyms 136

15 Glossary 138

16 References 139

Table of Figures

Figure 1: Constraints Format – only one allowed 9
Figure 2: Constraints Format – only one like this allowed 10
Figure 3: nullFlavor Example 10
Figure 4: QRDA-III Report Structure Example 12
Figure 5: recordTarget Example, QRDA Category III Report – CMS (V2) 19
Figure 6: Device Author Example 20
Figure 7: Person Author Example 21
Figure 8: Custodian Example 21
Figure 9: informationRecipient Example, QRDA Category III Report - CMS (V2) 22
Figure 10: legalAuthenticator Example 23
Figure 11: Device Participant Example 24
Figure 12: Location Participant Example 25
Figure 13: documentationOf Example 27
Figure 14: Authorization Example 28
Figure 15: structuredBody Example 29
Figure 16: Advancing Care Information Section (V2) Example 31
Figure 17: Improvement Activity Section (V2) Example 32
Figure 18: QRDA-III Measure Section – CMS (V2) Example 34
Figure 19: Advancing Care Information Measure Performed Measure Reference and Results Example 37
Figure 20: Advancing Care Information Numerator Denominator Type Measure Reference and Results (V2) Example 40
Figure 21: Advancing Care Information Numerator Denominator Type Measure Denominator Data Example 43
Figure 22: Advancing Care Information Numerator Denominator Type Measure Numerator Data Example 45
Figure 23: Aggregate Count Example 47
Figure 24: Aggregate Count - CMS Example 49
Figure 25: Continuous Variable Measure Value - CMS Example 51
Figure 26: Ethnicity Supplemental Data Element - CMS (V2) Example 54
Figure 27: Improvement Activity Performed Reference and Results Example 56
Figure 28: Measure Data - CMS (V2) Example 62
Figure 29: Measure Performed Example 64
Figure 30: Measure Reference and Results - CMS (V2) Example 68
Figure 31: Payer Supplemental Data Element - CMS (V2) Example 71
Figure 32: Performance Rate Example 73
Figure 33: Performance Rate for Proportion Measure - CMS (V2) Example 76

Figure 34: Race Supplemental Data Element – CMS (V2) Example 79
Figure 35: Reporting Parameters Act Example 81
Figure 36: Reporting Stratum- CMS Example 84
Figure 37: Sex Supplemental Data Element - CMS (V2) Example 86

Table of Tables

Table 1: Time Zone Validation Rule 16
Table 2: QRDA Category III Report - CMS (V2) Contexts 18
Table 3: QRDA-III CMS Program Name....22
Table 4: Measure Section Contexts 29
Table 5: Advancing Care Information Section Contexts 30
Table 6: Improvement Activity Section Contexts 31
Table 7: QRDA Category III Measure Section - CMS (V2) Contexts 32
Table 8: Advancing Care information Measure Performed Measure Reference and Results Contexts....34
Table 9: Advancing Care Information Measure Performed Measure Reference and Results Constraints Overview....35
Table 10: Advancing Care information Numerator Denominator Type Measure Reference and Results (V2) Contexts 37
Table 11: Advancing Care Information Numerator Denominator Type Measure Reference and Results (V2) Constraints Overview....38
Table 12: Advancing Care Information Numerator Denominator Type Measure Denominator Data Contexts 40
Table 13: Advancing Care information Numerator Denominator Type Measure Denominator Data Constraints Overview....41
Table 14: Advancing Care Information Numerator Denominator Type Measure Numerator Data Contexts....43
Table 15: Advancing Care Information Numerator Denominator Type Measure Numerator Data Constraints Overview....43
Table 16: Aggregate Count Contexts 45
Table 17: Aggregate Count Constraints Overview....46
Table 18: Aggregate Count - CMS Contexts 47
Table 19: Aggregate Count - CMS Constraints Overview....48
Table 20: Continuous Variable Measure Value - CMS Contexts 49
Table 21: Continuous Variable Measure Value - CMS Constraints Overview....50
Table 22: Ethnicity Supplemental Data Element - CMS Contexts....51
Table 23: Ethnicity Supplemental Data Element - CMS (V2) Constraints Overview 52
Table 24: Improvement Activity Performed Measure Reference and Results Contexts 54
Table 25: Improvement Activity Performed Measure Reference and Results Constraints Overview....54
Table 26: Measure Data - CMS(V2) Contexts 56
Table 27: Measure Data - CMS (V2) Constraints Overview....57
Table 28: Measure Performed Contexts....63
Table 29: Measure Performed Constraints Overview 63
Table 30: Measure Reference and Results - CMS (V2) Contexts....64

Table 31: Measure Reference and Results - CMS (V2) Constraints Overview 65
Table 32: Payer Supplemental Data Element (V2) – CMS Contexts 68
Table 33: Payer Supplemental Data Element - CMS (V2) Constraints Overview.....69
Table 34: CMS Payer Groupings 71
Table 35: Performance Rate Contexts 72
Table 36: Performance Rate Constraints Overview.....72
Table 37: Performance Rate for Proportion Measure – CMS (V2) Contexts.....73
Table 38: Performance Rate for Proportion Measure - CMS (V2) Constraints Overview 74
Table 39: Race Supplemental Data Element – CMS (V2) Contexts 77
Table 40: Race Supplemental Data Element - CMS Constraints Overview 77
Table 41: Reporting Parameters Act Contexts 79
Table 42: Reporting Parameters Act Constraints Overview.....80
Table 43: Reporting Stratum – CMS Contexts 81
Table 44: Reporting Stratum – CMS Constraints Overview.....82
Table 45: Sex Supplemental Data Element - CMS (V2) Contexts 84
Table 46: Sex Supplemental Data Element - CMS (V2) Constraints Overview.....84
Table 47: UUID List for eCQM Specifications Eligible Clinicians January 2017 87
Table 48: Improvement Activities Identifiers 93
Table 49: Advancing Care Information Objectives and Measures Identifiers 104
Table 50: 2017 Advancing Care Information Transition Objectives and Measures (for 2017 performance period only) Identifiers 105
Table 51: Attestation Statements Identifiers 105
Table 52: Support Contact Information.....106
Table 53: Errata or Enhancement Request Location 106
Table 54: Null Flavor Validation Rules for Data Types 107
Table 55: NPI Validation Rules 108
Table 56: TIN Validation Rules.....108
Table 57: Changes Made to the QRDA-III Base Standard 109
Table 58: Changes Made to the 2017 CMS Eligible Clinicians and EPs QRDA IG from 2016 CMS QRDA IG Part B 121

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

1 Introduction

1.1 Overview

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

This QRDA guide contains the Centers for Medicare & Medicaid Services (CMS) supplemental implementation guide to the *HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture, Category III, STU Release 2.1*[1,2] for the 2017 performance period. This HL7 base standard is referred to as the HL7 QRDA-III STU R2.1.

1.2 Organization of the Guide

This implementation guide contains the following chapters:

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

APPENDIX

[1] HL7 QRDA-III product brief: http://www.hl7.org/implement/standards/product_brief.cfm?product_id=286
[2] HL7 Clinical Quality Information Workgroup http://www.hl7.org/documentcenter/public/wg/cqi/CDAR2_QRDAIII_R1_STU_R2.1_2017JUN.zip

- Chapters 8-16 provide references, resources, and several change logs including a list of all changes made to the HL7 QRDA-III STU R2.1 to produce this CMS Implementation Guide

2 Conformance Conventions Used in This Guide

2.1 Conformance Verbs (Keywords)

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

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

2.2 Cardinality

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

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

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

Figure 1: Constraints Format – only one allowed

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

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

Figure 2: Constraints Format – only one like this allowed

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

2.3 Null Flavor

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

Figure 3: nullFlavor Example

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

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

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

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

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

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

3 Overview

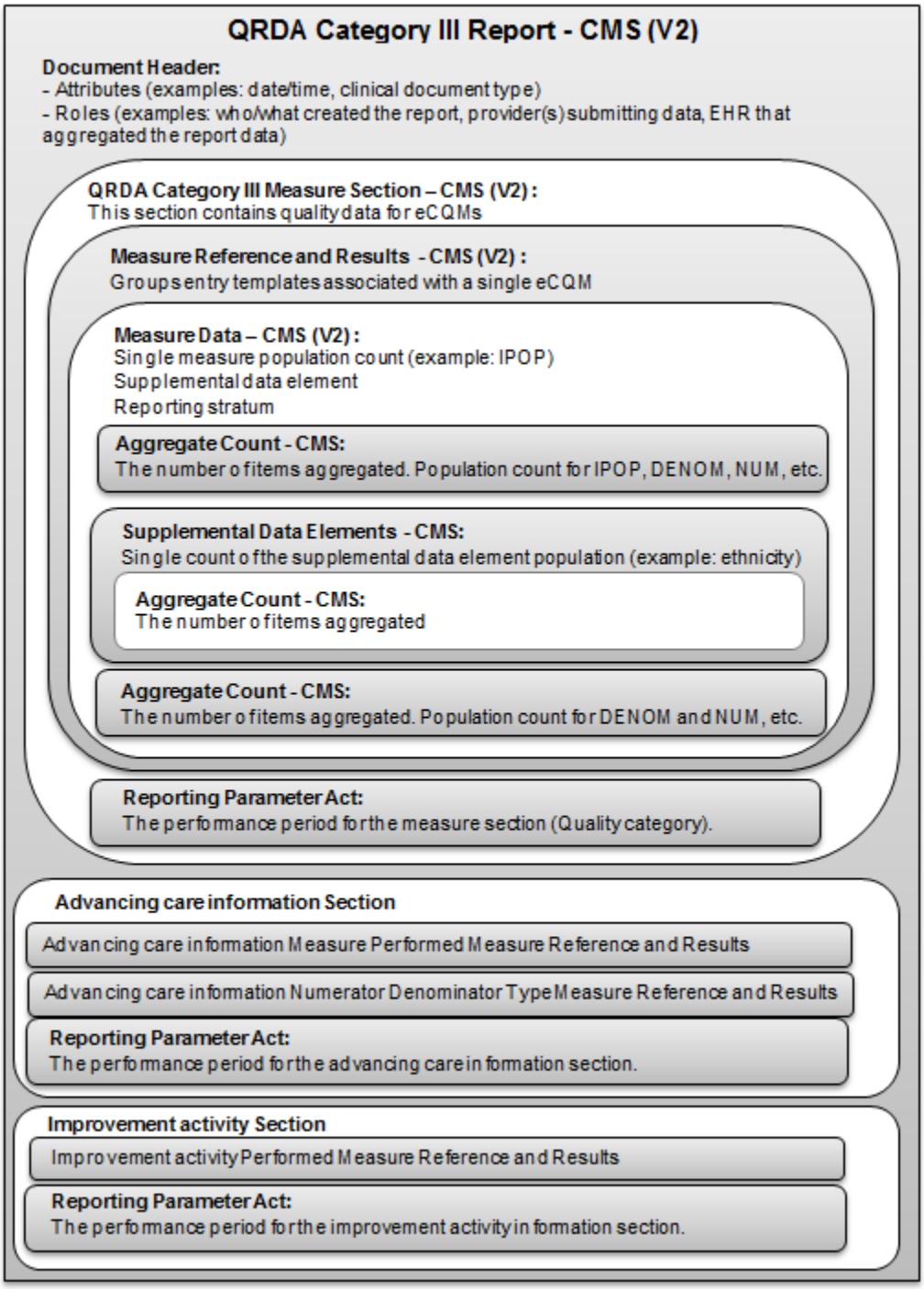
3.1 Background

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

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

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

Figure 4: QRDA-III Report Structure Example



3.2 How to Read This QRDA-III Guide

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

4 QRDA Category III Submission Rules

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

4.1 Comprehensive Primary Care Plus (CPC+) Submissions

For program year 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 January 2017 Addendum to 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 regulation[3] 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 (including beneficiaries for all payers and those that are uninsured) who were seen at least once at the practice site location during the Performance Period (i.e., calendar year) by CPC+ clinicians (TIN/NPI) and who met the inclusion criteria for the Initial Population (IP)/Denominator. Each CPC+ practice site submitting QRDA-III files for the 2017 Performance Period must provide at least the minimum number[4] 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 eCQM Specifications for Eligible Clinicians January 2017 (the January 2017 Addendum to the eCQM Specifications for Eligible Professionals April 2016) provided in the eCQI Resource Center.

[3] 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

[4] 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.

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

4.2 Merit-Based Incentive Payments (MIPS) QRDA-III Submissions

MIPS QRDA-III submissions must contain at least one measure submitted for one of the following three MIPS performance categories: quality, advancing care information, or improvement activity. Please refer to the Quality Payment Program website for quality, advancing care information and improvement activity scoring rules.

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

For the transition year, MIPS eligible clinicians have three options for participation, known as Pick Your Pace, which allows clinicians to submit between 1 day and a full calendar year of data. For the MIPS eligible clinician participating as an individual, your eCQM populations include all patients (all-payer data) seen by the MIPS eligible clinician during the performance period. For group participation, eCQM populations include all patients (all-payer data). Data submission for both individual MIPS eligible clinicians and groups is January 1, 2018 through March 31, 2018.

4.3 Identifiers

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

- Alternative Payment Model (APM) Entity Identifier
  - For CPC+, this is the CPCPLUS APM Entity Identifier.
    Note: Additional guidance regarding the CPCPLUS APM Entity Identifier assigned by the CPC+ program to the CPC+ practice site will be provided at a later time.

- National Provider Identifier (NPI)
  - Required for MIPS individual reporting
  - Not allowed for MIPS group reporting
  - Required for CPC+ reporting

- Tax Identification Number (TIN)
  - Required for MIPS group reporting and MIPS individual reporting
  - Required for CPC+ reporting

4.4 Succession Management

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

4.4.1 Final Action Processing used in Succession Management

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

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

4.4.2 Final Action Processing Rules for MIPS

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

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

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

4.4.3 Final Action Processing Rules for CPC+

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

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

4.4.4 Program Identifiers Used in Succession Management

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

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

4.5 Time Zone

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

Table 1: Time Zone Validation Rule

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

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

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

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

- act[@templateId="`2.16.840.1.113883.10.20.27.3.8`"]/effectiveTime/low
- act[@templateId="`2.16.840.1.113883.10.20.27.3.8`"]/effectiveTime/high

4.6 Performance Period and Performance Rate

The performance period for the CPC+ program begins on January 1, 2017 and ends on December 31, 2017. If the CMS program name code is "CPCPLUS", the `Reporting Parameters Act` `effectiveTime/low` and `effectiveTime/high` value must be set as the following:

- act[@templateId="`2.16.840.1.113883.10.20.27.3.8`"]/effectiveTime/low/@value="`20170101`"
- act[@templateId="`2.16.840.1.113883.10.20.27.3.8`"]/effectiveTime/high/@value="`20171231`"

For the MIPS performance period requirement, please see 4.2 Merit-Based Incentive Payments (MIPS) QRDA-III Submissions.

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

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

For MIPS reporting (CMS program name code is either "MIPS_INDIV" or "MIPS_GROUP"), performance rates for eCQMs and ACI measures are not required for submissions. If performance rates are provided, they will be ignored by the receiving system.

4.7 Templates Versioning and Validations

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

SHALL contain exactly one [1..1] **`templateId`** (CONF:2226-17908) such that it

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 R2.1 and the 2017 CMS IG must be used for 2017 CMS QRDA-III submissions.

5 QRDA Category III Validation

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

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

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

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

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

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

- Description and explanatory narrative
- Template metadata (e.g., templateId, etc.)
- Header constraints
- Required section-level templates

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

   a. This id **SHALL** be a globally unique identifier for the document (CONF:2233-17242).

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

5.1.1 recordTarget

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

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

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

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

5.1.2 author

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

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

Figure 6: Device Author Example

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

Figure 7: Person Author Example

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

5.1.3 custodian

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

13. **SHALL** contain exactly one [1..1] **`custodian`** (CONF:2233-17213).
    a. This custodian **SHALL** contain exactly one [1..1] **`assignedCustodian`** (CONF:2233-17214).
        i. This assignedCustodian **SHALL** contain exactly one [1..1] **`representedCustodianOrganization`** (CONF:2233-17215).
            1. This representedCustodianOrganization **SHALL** contain at least one [1..*] **`id`** (CONF:2233-18165).
            2. This representedCustodianOrganization **SHOULD** contain zero or one [0..1] **`name`** (CONF:2233-18166).
    b. This assignedCustodian **SHALL** represent the organization that owns and reports the data (CONF:2233-18246).

Figure 8: Custodian Example

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

5.1.4 informationRecipient

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

14. **SHALL** contain exactly one [1..1] **`informationRecipient`** (CONF:2233-711158).
    a. This informationRecipient **SHALL** contain exactly one [1..1] **`intendedRecipient`** (CONF:2233-711159).

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

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

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

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

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

Table 3: QRDA-III CMS Program Name

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

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

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

5.1.5 legalAuthenticator

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

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

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

    a. This legalAuthenticator **SHALL** contain exactly one [1..1] **`time`** (CONF:2233-18167).

       Note: This value is when the document was signed.

    b. This legalAuthenticator **SHALL** contain exactly one [1..1] **`signatureCode`** (CONF:2233-18168).

       i. This signatureCode **SHALL** contain exactly one [1..1] **`@code`**`="S"` (CONF:2233-18169).

    c. This legalAuthenticator **SHALL** contain exactly one [1..1] **`assignedEntity`** (CONF:2233-19670).

       i. This assignedEntity **MAY** contain zero or one [0..1] **`representedOrganization`** (CONF:2233-19671).

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

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

Figure 10: legalAuthenticator Example

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

5.1.6 participant is Device

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

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

    a. **SHALL** contain exactly one [1..1] **`@typeCode`**`="DEV"` device (CodeSystem: `HL7ParticipationType urn:oid:2.16.840.1.113883.5.90` **STATIC**) (CONF:2233-18301).

    b. **SHALL** contain exactly one [1..1] **`associatedEntity`** (CONF:2233-18302).

       i. This associatedEntity **SHALL** contain exactly one [1..1] **`@classCode`**`="RGPR"` regulated product (CodeSystem: `HL7ActClass urn:oid:2.16.840.1.113883.5.6` **STATIC**) (CONF:2233-18303).

       ii. This associatedEntity **MAY** contain zero or one [0..1] **`id`** (CONF:2233-18304) such that it

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

1. **SHALL** contain exactly one [1..1] **`@root`**`="2.16.840.1.113883.3.2074.1"` CMS EHR Certification

Identification Number (CONF:2233-18305).
Note: This value specifies that the id is the CMS EHR Certification Identification Number.

iii. This associatedEntity **SHALL** contain at least one [1..*] **`id`** (CONF:2233-20954).

iv. This associatedEntity **SHALL** contain exactly one [1..1] **`code`** (CONF:2233-18308).

1. This code **SHALL** contain exactly one [1..1] **`@code`**="`129465004`" medical record, device (CONF:2233-18309).
2. This code **SHALL** contain exactly one [1..1] **`@codeSystem`**="`2.16.840.1.113883.6.96`" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:2233-21167).

Figure 11: Device Participant Example

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

5.1.7 participant is Location

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

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

17. **MAY** contain zero or one [0..1] **`participant`** (CONF:2233-711150) such that it

a. **SHALL** contain exactly one [1..1] **`@typeCode`**="`LOC`" Location (CodeSystem: `HL7ParticipationType urn:oid:2.16.840.1.113883.5.90`) (CONF:2233-711151).

b. **SHALL** contain exactly one [1..1] **`associatedEntity`** (CONF:2233-711152).

i. This associatedEntity **SHALL** contain exactly one [1..1] **`@classCode`**="`SDLOC`" Service Delivery Location (CodeSystem: `RoleClass urn:oid:2.16.840.1.113883.5.110`) (CONF:2233-711153).

ii. This associatedEntity **SHALL** contain exactly one [1..1] **`id`** (CONF:2233-711154).

1. This id **SHALL** contain exactly one [1..1] **`@root`**="`2.16.840.1.113883.3.249.5.1`" CPC Practice Site (CONF:2233-711155).
Note: This OID contained in the @root (2.16.840.1.113883.3.249.5.1) designates that the @extension must hold a CPCPLUS APM Entity Identifier.
2. This id **SHALL** contain exactly one [1..1] **`@extension`** (CONF:2233-711156).
Note: This is the CPCPLUS APM Entity Identifier assigned to the CPC+ practice site.

iii. This associatedEntity **SHALL** contain exactly one [1..1] **`code`** (CONF:2233-711218).
    1. This code **SHALL** contain exactly one [1..1] **`@code`**`="394730007"` Healthcare Related Organization (CONF:2233-711219).
    2. This code **SHALL** contain exactly one [1..1] **`@codeSystem`**`="2.16.840.1.113883.6.96"` (CodeSystem: `SNOMED CT urn:oid:2.16.840.1.113883.6.96`) (CONF:2233-711324).

iv. This associatedEntity **SHALL** contain exactly one [1..1] **`addr`** (CONF:2233-711157).

Figure 12: Location Participant Example

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

5.1.8 documentationOf

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

18. **SHALL** contain exactly one [1..1] **`documentationOf`** (CONF: 2233-711214).
    a. This documentationOf **SHALL** contain exactly one [1..1] **`serviceEvent`** (CONF:2233-18171).
        i. This serviceEvent **SHALL** contain exactly one [1..1] **`@classCode`**`="PCPR"` Care Provision (CodeSystem: `HL7ActClass 2.16.840.1.113883.5.6` **STATIC**) (CONF:2233-18172).

For MIPS group reporting, must contain exactly one performer, which contains one TIN. No NPI is allowed.
For MIPS individual reporting, must contain exactly one performer, which contains one TIN and one NPI.
For CPCPLUS, must contain at least one performer, each performer contains one TIN and one NPI. Only CPC+ Practice Site providers are listed as performers.

        ii. This serviceEvent **SHALL** contain at least one [1..*] **`performer`** (CONF:2233-18173).
            1. Such performers **SHALL** contain exactly one [1..1] **`@typeCode`**`="PRF"` Performer (CodeSystem: `HL7ParticipationType 2.16.840.1.113883.5.90` **STATIC**) (CONF: 2233-18174).

2. Such performers **MAY** contain zero or one [0..1] **`time`** (CONF:2233-18175).
3. Such performers **SHALL** contain exactly one [1..1] **`assignedEntity`** (CONF:2233-18176).

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

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

a. This assignedEntity **SHALL** contain exactly one [1..1] **`id`** (CONF:711167) such that it
   i. **MAY** contain zero or one [0..1] **`@nullFlavor="`**`NA`**`"` (CONF:2233-711249).
      Note: @nullFlavor is only present for MIPS group reporting.
   ii. **SHALL** contain exactly one [1..1] **`@root="`**`2.16.840.1.113883.4.6`**`"` National Provider ID (CONF:2233-711169).
      Note: This value specifies that the id is the provider's National Provider Identifier (NPI).
   iii. **MAY** contain zero or one [0..1] **`@extension`** (CONF:2233-711170).
      Note: This is the provider's NPI. It is only present when this is not MIPS group reporting. 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 for CPC+ only,
         each with an NPI and TIN -->
    <performer typeCode="PRF">
      <time>
        <low value="20170101"/>
        <high value="20171231"/>
      </time>
      <assignedEntity>
        <!-- Provider NPI -->
        <id root="2.16.840.1.113883.4.6" extension="2589654740"/>
        <representedOrganization>
          <!-- Organization TIN -->
          <id root="2.16.840.1.113883.4.2" extension="990000999"/>
          <name>Good Health Clinic</name>
        </representedOrganization>
      </assignedEntity>
    </performer>
  </serviceEvent>
</documentationOf>
```

5.1.9 authorization

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

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

19. **MAY** contain zero or one [0..1] **`authorization`** (CONF:2233-18344).
    a. The authorization, if present, **SHALL** contain exactly one [1..1] **`consent`** (CONF:2233-18360).
        i. This consent **SHALL** contain exactly one [1..1] **`id`** (CONF:2233-18361). Note: This is the identifier of the consent given by the eligible clinicians and eligible professionals.
        ii. This consent **SHALL** contain exactly one [1..1] **`code`** (CONF:2233-18363).
            1. This code **SHALL** contain exactly one [1..1] **`@code`**="425691002" Consent given for electronic record sharing (CONF:2233-19550).
            2. This code **SHALL** contain exactly one [1..1] **`@codeSystem`**="`2.16.840.1.113883.6.96`" (CodeSystem: `SNOMED CT urn:oid:2.16.840.1.113883.6.96`) (CONF:2233-21172).
        iii. This consent **SHALL** contain exactly one [1..1] **`statusCode`** (CONF:2233-18364).
            1. This statusCode **SHALL** contain exactly one [1..1] **`@code`**="completed" Completed (CodeSystem: `ActStatus urn:oid:2.16.840.1.113883.5.14`) (CONF:2233-19551).

Figure 14: Authorization Example

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

5.1.10 component

A CMS QRDA Category III document for the 2017 performance period must contain at least a QRDA Category III Measure Section, an Improvement Activity Section, or an Advancing Care Information Section. The performance period for Improvement Activity, Advancing Care Information, and Quality (eCQMs) is specified using the Reporting Parameters Act template within each section respectively. The QRDA Category III Reporting Parameters Section shall not be used for specifying performance period.

20. **SHALL** contain exactly one [1..1] **`component`** (CONF:2233-17217).
    a. This component **SHALL** contain exactly one [1..1] **`structuredBody`** (CONF:2233-17235).
        i. This structuredBody **SHALL NOT** contain [0..0] **`component`** (CONF:2233-711341) such that it
            1. **SHALL** contain exactly one [1..1] **`QRDA Category III Reporting Parameters Section`** `(identifier: urn:oid:2.16.840.1.113883.10.20.27.2.2)` (CONF:2233-17282).
        ii. This structuredBody **MAY** contain zero or one [0..1] **`component`** (CONF:2233-17283) such that it
            1. **SHALL** contain exactly one [1..1] `QRDA Category III Measure Section - CMS (V2)` `(identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.3:2017-07-01)` (CONF:2233-711142).
        iii. This structuredBody **MAY** contain zero or one [0..1] **`component`** (CONF:2233-21173) such that it
            1. **SHALL** contain exactly one [1..1] `Improvement Activity Section (V2)` `(identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.4:2017-06-01)` (CONF:2233-21174).
        iv. This structuredBody **MAY** contain zero or one [0..1] **`component`** (CONF:2233-21317) such that it
            1. **SHALL** contain exactly one [1..1] `Advancing Care Information Section (V2)` `(identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.5:2017-06-01)` (CONF:2233-21318).
        v. This structuredBody **SHALL** contain at least a QRDA Category III Measure Section - CMS (V2), or an Improvement Activity Section (V2), or an Advancing Care Information Section (V2) (CONF:2233-711311).

Figure 15: structuredBody Example

```
<component>
  <structuredBody>
    <component>
      <!-- QRDA Category III Measure Section - CMS (V2)-->
      <section>
        ...
        <title>Measure Section</title>
        ...
      </section>
    </component>
    <component>
      <!-- Improvement activity Section -->
      <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
   a. **SHALL** contain exactly one [1..1] **`@root`**`="2.16.840.1.113883.10.20.24.2.2"` (CONF:67-12802).
2. **SHALL** contain exactly one [1..1] **`code`** (CONF:67-12798).
   a. This code **SHALL** contain exactly one [1..1] **`@code`**`="55186-1"` Measure Section (CONF:67-19230).

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

5.2.1.1 Advancing Care Information Section (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.27.2.5:2017-06-01 (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 (V2) Reporting Parameters Act

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**="2017-06-01" (CONF:3338-21395).
3. **MAY** contain zero or more [0..*] **entry** (CONF:3259-21380) such that it
   a. **SHALL** contain exactly one [1..1] Advancing Care Information Numerator Denominator Type Measure Reference and Results (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.28:2017-06-01) (CONF:3338-21381).
4. **MAY** contain zero or more [0..*] **entry** (CONF:3259-21315) such that it
   a. **SHALL** contain exactly one [1..1] 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 exactly one [1..1] **entry** (CONF:3338-21440) such that it
   a. **SHALL** contain exactly one [1..1] Reporting Parameters Act (identifier: urn:oid:2.16.840.1.113883.10.20.17.3.8) (CONF:3338-21441).
6. **SHALL** contain at least one [1..*] **entry** (CONF:3259-21438).
   a. This 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 (V2) 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="2017-06-01"/>
    <code code="55186-1" codeSystem="2.16.840.1.113883.6.1"
displayName="Measure Section"/>
    <title>Measure Section</title>
    <text>
...
</text>
    <entry>
        <organizer>
        <!-- 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>
    <entry>
        <!-- Reporting Parameters Act -->
        <act>
        </act>
    </entry>
</component>
```

5.2.1.2 Improvement Activity Section (V2)

`[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.27.2.4:2017-06-01 (open)]`

Table 6: Improvement Activity Section Contexts

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

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

1. Conforms to `Measure Section` template `(identifier: urn:oid:2.16.840.1.113883.10.20.24.2.2)`.
2. **SHALL** contain exactly one [1..1] **`templateId`** (CONF:3259-21175) such that it
    a. **SHALL** contain exactly one [1..1] **`@root`**`="2.16.840.1.113883.10.20.27.2.4"` (CONF:3259-21177).
    b. **SHALL** contain exactly one [1..1] **`@extension`**`="2017-06-01"` (CONF:3338-21398).

3. **SHALL** contain at least one [1..*] **`entry`** (CONF:3259-21181) such that it
    a. **SHALL** contain exactly one [1..1] `Improvement Activity Performed Measure Reference and Results` (identifier: `urn:hl7ii:2.16.840.1.113883.10.20.27.3.33:2016-09-01`) (CONF:3259-21436).
4. **SHALL** contain exactly one [1..1] **`entry`** (CONF:3338-21447) such that it
    a. **SHALL** contain exactly one [1..1] `Reporting Parameters Act` (identifier: `urn:oid:2.16.840.1.113883.10.20.17.3.8`) (CONF:3338-21448).

Figure 17: Improvement Activity Section (V2) Example

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

5.2.1.3 QRDA Category III Measure Section - CMS (V2)

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

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

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

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

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

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

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

```
<section>
    <!-- Measure Section template ID -->
    <templateId root="2.16.840.1.113883.10.20.24.2.2" />
    <!-- QRDA Category III Measure Section (V4) template ID -->
    <templateId root="2.16.840.1.113883.10.20.27.2.1"
extension="2017-06-01"/>
    <!-- QRDA Category III Measure Section - CMS (V2) template ID -->
    <templateId root="2.16.840.1.113883.10.20.27.2.3"
extension="2017-07-01"/>
    <code code="55186-1" codeSystem="2.16.840.1.113883.6.1"/>
    <title>Measure Section</title>
    <text>
        <table border="1" width="100%">
            <thead>
                <tr>
                    <th>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>
```

5.3 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 8: 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 an advancing care information measure should be referenced, and the way 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 9: 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		3259-21419	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		3259-21420	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		3259-21408	
@root	1..1	SHALL		3259-21417	2.16.840.1.113883.10.20.27.3.29
@extension	1..1	SHALL		3259-21418	2016-09-01
reference	1..1	SHALL		3259-21405	
@typeCode	1..1	SHALL		3259-21416	REFR
externalDocument	1..1	SHALL		3259-21406	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass)
@classCode	1..1	SHALL		3259-21415	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = DOC
id	1..1	SHALL		3259-21407	
@root	1..1	SHALL		3259-21412	2.16.840.1.113883.3.7031
@extension	1..1	SHALL		3259-21413	
text	0..1	SHOULD		3259-21414	
component	1..1	SHALL		3259-21404	
observation	1..1	SHALL		3259-21411	Measure Performed (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.27:2016-09-01)

1. Conforms to `Measure Reference` template `(identifier: urn:oid:2.16.840.1.113883.10.20.24.3.98)`.
2. **SHALL** contain exactly one [1..1] **`@classCode`**`="CLUSTER"` (CodeSystem: `HL7ActClass urn:oid:2.16.840.1.113883.5.6` **STATIC**) (CONF:3259-21419).
3. **SHALL** contain exactly one [1..1] **`@moodCode`**`="EVN"` (CodeSystem: `ActMood urn:oid:2.16.840.1.113883.5.1001` **STATIC**) (CONF:3259-21420).

4. **SHALL** contain exactly one [1..1] **`templateId`** (CONF:3259-21408) such that it
    a. **SHALL** contain exactly one [1..1] **`@root`**`="2.16.840.1.113883.10.20.27.3.29"` (CONF:3259-21417).
    b. **SHALL** contain exactly one [1..1] **`@extension`**`="2016-09-01"` (CONF:3259-21418).
5. **SHALL** contain exactly one [1..1] **`reference`** (CONF:3259-21405) such that it
    a. **SHALL** contain exactly one [1..1] **`@typeCode`**`="REFR"` (CONF:3259-21416).
    b. **SHALL** contain exactly one [1..1] **`externalDocument`** (CodeSystem: `HL7ActClass urn:oid:2.16.840.1.113883.5.6` **STATIC**) (CONF:3259-21406).
        i. This externalDocument **SHALL** contain exactly one [1..1] **`@classCode`**`="DOC"` Document (CodeSystem: `HL7ActClass urn:oid:2.16.840.1.113883.5.6`) (CONF:3259-21415).
        ii. This externalDocument **SHALL** contain exactly one [1..1] **`id`** (CONF:3259-21407) such that it
            1. **SHALL** contain exactly one [1..1] **`@root`**`="2.16.840.1.113883.3.7031"` (CONF:3259-21412). Note: This OID indicates that the @extension contains 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 19: 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 (V2)

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

Table 10: Advancing Care information Numerator Denominator Type Measure Reference and Results (V2) Contexts

Contained By	Contains
Advancing Care Information Section (V2) (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 11: Advancing Care Information Numerator Denominator Type Measure Reference and Results (V2) Constraints Overview

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

XPath	Card.	Verb	Data Type	CONF#	Value
@classCode	1..1	SHALL		3338-21273	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		3338-21274	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		3338-21248	
@root	1..1	SHALL		3338-21266	2.16.840.1.113883.10.20.27.3.28
@extension	1..1	SHALL		3338-21396	2017-06-01
reference	1..1	SHALL		3338-21242	
@typeCode	1..1	SHALL		3338-21265	REFR
externalDocument	1..1	SHALL		3338-21243	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass)
@classCode	1..1	SHALL		3338-21264	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = DOC
id	1..1	SHALL		3338-21247	
@root	1..1	SHALL		3338-21402	2.16.840.1.113883.3.7031
@extension	1..1	SHALL		3338-21403	
text	0..1	SHOULD		3338-21263	
component	0..1	MAY		3338-21240	
observation	1..1	SHALL		3338-21311	Performance Rate (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.30:2016-09-01)
component	1..1	SHALL		3338-21312	
observation	1..1	SHALL		3338-21313	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		3338-21320	
observation	1..1	SHALL		3338-21321	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:3338-21273).
3. **SHALL** contain exactly one [1..1] **`@moodCode`**`="EVN"` (CodeSystem: `HL7ActMood urn:oid:2.16.840.1.113883.5.1001` **STATIC**) (CONF:3338-21274).
4. **SHALL** contain exactly one [1..1] **`templateId`** (CONF:3338-21248) such that it
    a. **SHALL** contain exactly one [1..1] **`@root`**`="2.16.840.1.113883.10.20.27.3.28"` (CONF:3338-21266).
    b. **SHALL** contain exactly one [1..1] **`@extension`**`="2017-06-01"` (CONF:3338-21396).
5. **SHALL** contain exactly one [1..1] **`reference`** (CONF:3338-21242) such that it
    a. **SHALL** contain exactly one [1..1] **`@typeCode`**`="REFR"` (CONF:3338-21265).
    b. **SHALL** contain exactly one [1..1] **`externalDocument`** (CodeSystem: `HL7ActClass urn:oid:2.16.840.1.113883.5.6` **STATIC**) (CONF:3338-21243).
        i. This externalDocument **SHALL** contain exactly one [1..1] **`@classCode`**`="DOC"` Document (CodeSystem: `HL7ActClass urn:oid:2.16.840.1.113883.5.6`) (CONF:3338-21264).
        ii. This externalDocument **SHALL** contain exactly one [1..1] **`id`** (CONF:3338-21247) such that it
            1. **SHALL** contain exactly one [1..1] **`@root`**`="2.16.840.1.113883.3.7031"` (CONF:3338-21402). Note: This OID indicates that the @extension contains advancing care information measure identifier
            2. **SHALL** contain exactly one [1..1] **`@extension`** (CONF:3338-21403). 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:3338-21263).
6. **MAY** contain zero or one [0..1] **`component`** (CONF:3338-21240) such that it
    a. **SHALL** contain exactly one [1..1] `Performance Rate` `(identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.30:2016-09-01)` (CONF:3338-21311).
7. **SHALL** contain exactly one [1..1] **`component`** (CONF:3338-21312) such that it
    a. **SHALL** contain exactly one [1..1] `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)` (CONF:3338-21313).
8. **SHALL** contain exactly one [1..1] **`component`** (CONF:3338-21320) such that it
    a. **SHALL** contain exactly one [1..1] `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)` (CONF:3338-21321).

Figure 20: Advancing Care Information Numerator Denominator Type Measure Reference and Results (V2) Example

```
<organizer classCode="CLUSTER" moodCode="EVN">
    <!-- Measure Reference template -->
    <templateId root="2.16.840.1.113883.10.20.24.3.98"/>
    <!—Advancing care information Numerator Denominator Type Measure
Reference and Results -->
    <templateId root="2.16.840.1.113883.10.20.27.3.28"
extension="2017-06-01"/>
    <id root="ac575aef-7062-4ea2-b723-df517cfa470a"/>
    <statusCode code="completed"/>
    <reference typeCode="REFR">
        <!-- Reference to a particular 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_
PEA_1"/>
            <!-- Advancing care information measure title -->
            <text>Patient Access</text>
        </externalDocument>
    </reference>
    <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 12: 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 13: 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		3259-21378	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		3259-21379	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		3259-21366	
@root	1..1	SHALL		3259-21374	2.16.840.1.113883.10.20.27.3.32
@extension	1..1	SHALL		3259-21400	2016-09-01
code	1..1	SHALL		3259-21365	
@code	1..1	SHALL		3259-21372	ASSERTION
@codeSystem	1..1	SHALL		3259-21373	urn:oid:2.16.840.1.113883.5.4 (ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		3259-21367	
@code	1..1	SHALL		3259-21375	urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	CD	3259-21368	
@code	1..1	SHALL		3259-21376	DENOM
@codeSystem	1..1	SHALL		3259-21377	urn:oid:2.16.840.1.113883.5.4 (ActCode) = 2.16.840.1.113883.5.4
entryRelationship	1..1	SHALL		3259-21364	
@typeCode	1..1	SHALL		3259-21370	SUBJ
@inversionInd	1..1	SHALL		3259-21371	true
observation	1..1	SHALL		3259-21369	Aggregate Count (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3)

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

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

Figure 21: 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 14: 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 15: 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		3259-21360	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		3259-21361	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN

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

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

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

Figure 22: 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

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

Table 16: Aggregate Count Contexts

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

Table 17: Aggregate Count Constraints Overview

observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.3']

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

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

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

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

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

Figure 23: Aggregate Count Example

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

5.3.5.1 Aggregate Count - CMS

`[observation: templateId 2.16.840.1.113883.10.20.27.3.24 (open)]`

Table 18: Aggregate Count - CMS Contexts

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

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

Table 19: Aggregate Count - CMS Constraints Overview

observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.24']

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

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

Note: Aggregate Count templateId (QRDA III)

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

Figure 24: Aggregate Count - CMS Example

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

5.3.6 Continuous Variable Measure Value - CMS

`[observation: templateId 2.16.840.1.113883.10.20.27.3.26 (open)]`

Table 20: Continuous Variable Measure Value - CMS Contexts

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

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

Table 21: Continuous Variable Measure Value - CMS Constraints Overview

observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.26']

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

1. Conforms to `Continuous Variable Measure Value` template `(identifier: urn:oid:2.16.840.1.113883.10.20.27.3.2)`.
2. **SHALL** contain exactly one [1..1] **`@classCode`**`="OBS"` (CodeSystem: `HL7ActClass urn:oid:2.16.840.1.113883.5.6` **STATIC**) (CONF:1109-17569).
3. **SHALL** contain exactly one [1..1] **`@moodCode`**`="EVN"` (CodeSystem: `ActMood urn:oid:2.16.840.1.113883.5.1001` **STATIC**) (CONF:1109-17570).
4. **SHALL** contain exactly one [1..1] **`templateId`** (CONF:1109-711264) such that it
   a. **SHALL** contain exactly one [1..1] **`@root`**`="2.16.840.1.113883.10.20.27.3.26"` (CONF:1109-711265).
5. **SHALL** contain exactly one [1..1] **`templateId`** (CONF:1109-18096) such that it
   a. **SHALL** contain exactly one [1..1] **`@root`**`="2.16.840.1.113883.10.20.27.3.2"` (CONF:1109-18097).
   Note: Continuous Variable Measure Value templateId (QRDA III)
6. **SHALL** contain exactly one [1..1] **`code`** (CONF:1109-17571).

   a. This code element **SHALL** equal the code element in that eMeasure's measure observation definition (CONF:1109-711243).

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

Figure 25: Continuous Variable Measure Value - CMS Example

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Continuous Variable Measure Value template ID (QRDA-III) -->
  <templateId root="2.16.840.1.113883.10.20.27.3.2"/>
  <!-- Continuous Variable Measure Value - CMS template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.26"/>
  <code nullFlavor="OTH">
    <originalText>Time Difference</originalText>
  </code>
  <statusCode code="completed"/>
  <value xsi:type="PQ" value="55" unit="min"/>
  <methodCode code="MEDIAN" displayName="Median"
              codeSystem="2.16.840.1.113883.5.84"
              codeSystemName="ObservationMethod"/>
  <!-- reference to the relevant measure observation in the
         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 22: Ethnicity Supplemental Data Element - CMS Contexts

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

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

eMeasure is episode-based, the count will reflect the patient count rather than the episode count.

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

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

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

1. Conforms to `Ethnicity Supplemental Data Element (V2)` template `(identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.7:2016-09-01)`.

2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:2233-18216).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:2233-18217).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-711253) such that it
    a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.27.3.22" (CONF:2233-711254).
    b. **SHALL** contain exactly one [1..1] **@extension**="2016-11-01" (CONF:2233-711312).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-18218) such that it
    a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.27.3.7" (CONF:2233-18219).
    Note: Ethnicity Supplemental Data Element (V2) templateId
    b. **SHALL** contain exactly one [1..1] **@extension**="2016-09-01" (CONF:2233-21176).
6. **SHALL** contain exactly one [1..1] **code** (CONF:2233-18220).
    a. This code **SHALL** contain exactly one [1..1] **@code**="69490-1" Ethnic (CONF:2233-18221).
    b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:2233-21164).
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:2233-18118).
    a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:2233-18119).
8. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", where the code **SHALL** be selected from ValueSet **Ethnicity** urn:oid:2.16.840.1.114222.4.11.837 **DYNAMIC** (CONF:2233-18222).
9. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:2233-18120) such that it
    a. **SHALL** contain exactly one [1..1] **@typeCode**="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:2233-18121).
    b. **SHALL** contain exactly one [1..1] **@inversionInd**="true" (CONF:2233-18122).
    c. **SHALL** contain exactly one [1..1] Aggregate Count - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24) (CONF:2233-711201).

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

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

5.3.8 Improvement Activity Performed Measure Reference and Results

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

Table 24: Improvement Activity Performed Measure Reference and Results Contexts

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

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

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

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

XPath	Card.	Verb	Data Type	CONF#	Value
@classCode	1..1	SHALL		3259-21434	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		3259-21435	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		3259-21425	
@root	1..1	SHALL		3259-21432	2.16.840.1.113883.10.20.27.3.33

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

1. Conforms to `Measure Reference` template `(identifier: urn:oid:2.16.840.1.113883.10.20.24.3.98)`.
2. **SHALL** contain exactly one [1..1] **`@classCode`**`="CLUSTER"` (CodeSystem: `HL7ActClass urn:oid:2.16.840.1.113883.5.6` **STATIC**) (CONF:3259-21434).
3. **SHALL** contain exactly one [1..1] **`@moodCode`**`="EVN"` (CodeSystem: `ActMood urn:oid:2.16.840.1.113883.5.1001` **STATIC**) (CONF:3259-21435).
4. **SHALL** contain exactly one [1..1] **`templateId`** (CONF:3259-21425) such that it
   a. **SHALL** contain exactly one [1..1] **`@root`**`="2.16.840.1.113883.10.20.27.3.33"` (CONF:3259-21432).
   b. **SHALL** contain exactly one [1..1] **`@extension`**`="2016-09-01"` (CONF:3259-21433).
5. **SHALL** contain exactly one [1..1] **`reference`** (CONF:3259-21422) such that it
   a. **SHALL** contain exactly one [1..1] **`@typeCode`**`="REFR"` (CONF:3259-21431).
   b. **SHALL** contain exactly one [1..1] **`externalDocument`** (CodeSystem: `HL7ActClass urn:oid:2.16.840.1.113883.5.6` **STATIC**) (CONF:3259-21423).
      i. This externalDocument **SHALL** contain exactly one [1..1] **`@classCode`**`="DOC"` Document (CodeSystem: `HL7ActClass urn:oid:2.16.840.1.113883.5.6`) (CONF:3259-21430).
      ii. This externalDocument **SHALL** contain exactly one [1..1] **`id`** (CONF:3259-21424) such that it
         1. **SHALL** contain exactly one [1..1] **`@root`**`="2.16.840.1.113883.3.7034"` (CONF:3259-21427). Note: This OID indicates that the @extension contains improvement activity identifier

2. **SHALL** contain exactly one [1..1] **`@extension`** (CONF:3259-21428). Note: This @extension is the value of improvement activity identifier

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

iii. This externalDocument **SHOULD** contain zero or one [0..1] **`text`** (CONF:3259-21429).

6. **SHALL** contain exactly one [1..1] **`component`** (CONF:3259-21421) such that it
   a. **SHALL** contain exactly one [1..1] `Measure Performed (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.27:2016-09-01)` (CONF:3259-21426).

Figure 27: Improvement Activity Performed Reference and Results Example

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

5.3.9 Measure Data - CMS (V2)

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

Table 26: Measure Data - CMS(V2) Contexts

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

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

Populations that are used in 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 (e.g., 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 27: Measure Data - CMS (V2) Constraints Overview

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

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

XPath	Card.	Verb	Data Type	CONF#	Value
@code	1..1	SHALL		2233-19555	urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	CD	2233-17618	urn:oid:2.16.840.1.113883.1.11.20369 (ObservationPopulationInclusion)
entryRelationship	1..1	SHALL		2233-17619	
@typeCode	1..1	SHALL		2233-17910	SUBJ
@inversionInd	1..1	SHALL		2233-17911	true
observation	1..1	SHALL		2233-711198	Aggregate Count - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24)
entryRelationship	0..*	MAY		2233-17918	
@typeCode	1..1	SHALL		2233-17919	COMP
observation	1..1	SHALL		2233-711180	Reporting Stratum - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.20)
entryRelationship	1..*	SHALL		2233-711190	
@typeCode	1..1	SHALL		2233-18137	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		2233-711181	Sex Supplemental Data Element - CMS (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.21:2016-11-01)
entryRelationship	1..*	SHALL		2233-711191	
@typeCode	1..1	SHALL		2233-18144	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		2233-711182	Ethnicity Supplemental Data Element - CMS (V2) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.22:2016-11-01)
entryRelationship	1..*	SHALL		2233-711192	
@typeCode	1..1	SHALL		2233-18145	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		2233-711183	Race Supplemental Data Element - CMS (V2) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.19:2016-11-01)
entryRelationship	1..*	SHALL		2233-711193	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		2233-18146	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		2233-711184	Payer Supplemental Data Element - CMS (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.18:2016-11-01)
entryRelationship	0..*	MAY		2233-18143	
@typeCode	1..1	SHALL		2233-18148	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		2233-711212	Continuous Variable Measure Value - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.26)
reference	1..1	SHALL		2233-18239	
externalObservation	1..1	SHALL		2233-18240	
id	1..1	SHALL		2233-711233	

1. Conforms to `Measure Data (V3)` template `(identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.5:2016-09-01)`.
2. **SHALL** contain exactly one [1..1] **`@classCode`**`="OBS"` (CodeSystem: `HL7ActClass urn:oid:2.16.840.1.113883.5.6` **STATIC**) (CONF:2233-17615).
3. **SHALL** contain exactly one [1..1] **`@moodCode`**`="EVN"` (CodeSystem: `ActMood urn:oid:2.16.840.1.113883.5.1001` **STATIC**) (CONF:2233-17616).
4. **SHALL** contain exactly one [1..1] **`templateId`** (CONF:2233-711266) such that it
   a. **SHALL** contain exactly one [1..1] **`@root`**`="2.16.840.1.113883.10.20.27.3.16"` (CONF:2233-711267).
   b. **SHALL** contain exactly one [1..1] **`@extension`**`="2016-11-01"` (CONF:2233-711287).
5. **SHALL** contain exactly one [1..1] **`templateId`** (CONF:2233-17912) such that it
   a. **SHALL** contain exactly one [1..1] **`@root`**`="2.16.840.1.113883.10.20.27.3.5"` (CONF:2233-17913).
   Note: Measure Data (V3) templateId
   b. **SHALL** contain exactly one [1..1] **`@extension`**`="2016-09-01"` (CONF:2233-711288).
6. **SHALL** contain exactly one [1..1] **`code`** (CONF:2233-17617).
   a. This code **SHALL** contain exactly one [1..1] **`@code`**`="ASSERTION"` Assertion (CONF:2233-18198).
   b. This code **SHALL** contain exactly one [1..1] **`@codeSystem`**`="2.16.840.1.113883.5.4"` (CodeSystem: `HL7ActCode urn:oid:2.16.840.1.113883.5.4`) (CONF:2233-711318).
7. **SHALL** contain exactly one [1..1] **`statusCode`** (CodeSystem: `ActStatus urn:oid:2.16.840.1.113883.5.14` **STATIC**) (CONF:2233-18199).

   a. This statusCode **SHALL** contain exactly one [1..1] `@code="completed"` Completed (CodeSystem: `ActStatus urn:oid:2.16.840.1.113883.5.14`) (CONF:2233-19555).

8. **SHALL** contain exactly one [1..1] **`value`** with **`@xsi:type`**="CD", where the code **SHOULD** be selected from ValueSet `PopulationInclusionObservationType urn:oid:2.16.840.1.113883.1.11.20479` **DYNAMIC** (CONF:2233-17618).
9. **SHALL** contain exactly one [1..1] **`entryRelationship`** (CONF:2233-17619) such that it
   a. **SHALL** contain exactly one [1..1] **`@typeCode`**`="SUBJ"` (CONF:2233-17910).
   b. **SHALL** contain exactly one [1..1] **`@inversionInd`**`="true"` (CONF:2233-17911).
   c. **SHALL** contain exactly one [1..1] `Aggregate Count - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24)` (CONF:2233-711198).
10. **MAY** contain zero or more [0..*] **`entryRelationship`** (CONF:2233-17918) such that it
   a. **SHALL** contain exactly one [1..1] **`@typeCode`**`="COMP"` (CONF:2233-17919).
   b. **SHALL** contain exactly one [1..1] `Reporting Stratum - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.20)` (CONF:2233-711180).
11. **SHALL** contain at least one [1..*] **`entryRelationship`** (CONF:2233-711190) such that it
   a. **SHALL** contain exactly one [1..1] **`@typeCode`**`="COMP"` (CodeSystem: `HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002` **STATIC**) (CONF:2233-18137).
   b. **SHALL** contain exactly one [1..1] `Sex Supplemental Data Element - CMS (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.21:2016-11-01)` (CONF:2233-711181).
12. **SHALL** contain at least one [1..*] **`entryRelationship`** (CONF:2233-711191) such that it
   a. **SHALL** contain exactly one [1..1] **`@typeCode`**`="COMP"` (CodeSystem: `HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002` **STATIC**) (CONF:2233-18144).
   b. **SHALL** contain exactly one [1..1] `Ethnicity Supplemental Data Element - CMS (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.22:2016-11-01)` (CONF:2233-711182).
13. **SHALL** contain at least one [1..*] **`entryRelationship`** (CONF:2233-711192) such that it
   a. **SHALL** contain exactly one [1..1] **`@typeCode`**`="COMP"` (CodeSystem: `HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002` **STATIC**) (CONF:2233-18145).
   b. **SHALL** contain exactly one [1..1] `Race Supplemental Data Element - CMS (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.19:2016-11-01)` (CONF:2233-711183).
14. **SHALL** contain at least one [1..*] **`entryRelationship`** (CONF:2233-711193) such that it
   a. **SHALL** contain exactly one [1..1] **`@typeCode`**`="COMP"` (CodeSystem: `HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002` **STATIC**) (CONF:2233-18146).
   b. **SHALL** contain exactly one [1..1] `Payer Supplemental Data Element - CMS (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.18:2016-11-01)` (CONF:2233-711184).

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

15. **MAY** contain zero or more [0..*] **`entryRelationship`** (CONF:2233-18143) such that it

a. **SHALL** contain exactly one [1..1] **`@typeCode`**`="COMP"` (CodeSystem: `HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002` **STATIC**) (CONF:2233-18148).

b. **SHALL** contain exactly one [1..1] `Continuous Variable Measure Value - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.26)` (CONF:2233-711212).

16. **SHALL** contain exactly one [1..1] **`reference`** (CONF:2233-18239) such that it

a. **SHALL** contain exactly one [1..1] **`externalObservation`** (CONF:2233-18240).

i. This externalObservation **SHALL** contain exactly one [1..1] **`id`** (CONF:2233-711233).
Note: This is the id defined in the corresponding eMeasure population criteria section.

Figure 28: Measure Data - CMS (V2) Example

```
<observation classCode="OBS" moodCode="EVN">
    <!-- Measure Data (V3) template ID -->
    <templateId root="2.16.840.1.113883.10.20.27.3.5" extension="2016-
09-01"/>
    <!-- Measure Data - CMS (V2) template ID -->
    <templateId root="2.16.840.1.113883.10.20.27.3.16"
extension="2016-11-01"/>
    <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
        displayName="Assertion" codeSystemName="ActCode"/>
    <statusCode code="completed"/>
    <value xsi:type="CD" code="IPOP"
         codeSystem="2.16.840.1.113883.5.4"
         displayName="initial population"
         codeSystemName="ActCode"/>
    <!-- Aggregate Count - CMS -->
    <entryRelationship typeCode="SUBJ" inversionInd="true">
        <observation classCode="OBS" moodCode="EVN">
         ...
        </observation>
    </entryRelationship>
    <!-- Sex Supplemental Data Element - CMS (V2)-->
    <entryRelationship typeCode="COMP">
        <observation classCode="OBS" moodCode="EVN">
         ...
        </observation>
    </entryRelationship>
    <!-- Ethnicity Supplemental Data Element - CMS (V2) -->
    <entryRelationship typeCode="COMP">
        <observation classCode="OBS" moodCode="EVN">
         ...
        </observation>
    </entryRelationship>
    <!-- Race Supplemental Data Element - CMS (V2) -->
    <entryRelationship typeCode="COMP">
        <observation classCode="OBS" moodCode="EVN">
         ...
        </observation>
    </entryRelationship>
    <!-- Payer Supplemental Data Element - CMS (V2) -->
    <entryRelationship typeCode="COMP">
        <observation classCode="OBS" moodCode="EVN">
        ...
        </observation>
    </entryRelationship>
    <!-- reference to the relevant population in the 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 28: Measure Performed Contexts

Contained By	Contains
Advancing Care Information Measure Performed Measure Reference and Results (required) Improvement Activity Performed Measure Reference and Results (required)	

This template reports whether a measurement was performed or not.

Table 29: Measure Performed Constraints Overview

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

XPath	Card.	Verb	Data Type	CONF#	Value
@classCode	1..1	SHALL		3259-21221	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		3259-21222	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		3259-21185	
@root	1..1	SHALL		3259-21203	2.16.840.1.113883.10.20.27.3.27
@extension	1..1	SHALL		3259-21399	2016-09-01
code	1..1	SHALL		3259-21382	
@code	1..1	SHALL		3259-21392	ASSERTION
@codeSystem	1..1	SHALL		3259-21393	urn:oid:2.16.840.1.113883.5.4 (ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		3259-21440	
@code	1..1	SHALL		3259-21442	urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	CD	3259-21391	urn:oid:2.16.840.1.114222.4.11.819 (Yes No Indicator (HL7))

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

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

Figure 29: Measure Performed Example

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

5.3.11 Measure Reference and Results - CMS (V2)

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

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

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

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

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

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

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

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

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

1. **SHALL** contain exactly one [1..1] **`@root`**`="2.16.840.1.113883.4.738"` (CONF:2233-18193). Note: This OID indicates that the @extension contains the version specific identifier for the eMeasure
2. **SHALL** contain exactly one [1..1] **`@extension`** (CONF:2233-711289). Note: This @extension SHALL equal the version specific identifier for eMeasure (i.e. QualityMeasureDocument/id)

iii. This externalDocument **SHOULD** contain zero or one [0..1] **`code`** (CodeSystem: `LOINC urn:oid:2.16.840.1.113883.6.1` **STATIC**) (CONF:2233-17896).

1. The code, if present, **SHALL** contain exactly one [1..1] **`@code`**`="57024-2"` Health Quality Measure Document (CodeSystem: `LOINC urn:oid:2.16.840.1.113883.6.1`) (CONF:2233-19553).

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

iv. This externalDocument **SHOULD** contain zero or one [0..1] **`text`** (CONF:2233-17897).

9. **MAY** contain zero or more [0..*] **`component`** (CONF:2233-17903) such that 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 32: Payer Supplemental Data Element (V2) – CMS Contexts

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

This observation represents the policy or program providing the coverage for the patients being reported on and provides the number of patients in the population that are covered by that policy or program. When a patient has multiple payers, only count the primary payer (usually this is the first payer listed). For CMS eligible clinicians and eligible professionals programs, all codes present in the value set must be reported, even if the count is zero. If an 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 33: Payer Supplemental Data Element - CMS (V2) Constraints Overview

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

XPath	Card.	Verb	Data Type	CONF#	Value
@classCode	1..1	SHALL		2233-21155	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		2233-21156	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		2233-711270	
@root	1..1	SHALL		2233-711271	2.16.840.1.113883.10.20.27.3.18
@extension	1..1	SHALL		2233-711299	2016-11-01
templateId	1..1	SHALL		2233-18237	
@root	1..1	SHALL		2233-18238	2.16.840.1.113883.10.20.27.3.9
@extension	1..1	SHALL		2233-21157	2016-02-01
code	1..1	SHALL		2233-21158	
@code	1..1	SHALL		2233-21159	48768-6
@codeSystem	1..1	SHALL		2233-21165	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		2233-18106	
@code	1..1	SHALL		2233-18107	urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	CD	2233-711196	
translation	1..1	SHALL		2233-711230	
@code	1..1	SHALL		2233-711231	urn:oid:2.16.840.1.113883.3.249.14.102 (CMS Payer Groupings)
@nullFlavor	1..1	SHALL		2233-711229	OTH
entryRelationship	1..1	SHALL		2233-18108	
@typeCode	1..1	SHALL		2233-18109	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		2233-18110	true
observation	1..1	SHALL		2233-711199	Aggregate Count - CMS (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24)

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

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

Table 34: CMS Payer Groupings

Value Set: CMS Payer Groupings 2.16.840.1.113883.3.249.14.102

Values specifying the primary payer for CMS QRDA-III report submissions that groups codes from the Public Health Data Standards Consortium Source of Payment Typology (2.16.840.1.113883.3.221.5). Codes are grouped as follows:

Payer Grouping A: Medicare (1)

Payer Grouping B: Medicaid (2)

Payer Grouping C: Private Health Insurance (5), Blue Cross/Blue Shield (6)

Payer Grouping D: Other Government (3), Department of Corrections (4), Managed Care Unspecified (7), No Payment Listed (8), Miscellaneous/Other (9)

Code	Code System	Code System OID	Print Name
A	CMS Clinical Codes	2.16.840.1.113883.3.249.12	Medicare
B	CMS Clinical Codes	2.16.840.1.113883.3.249.12	Medicaid
C	CMS Clinical Codes	2.16.840.1.113883.3.249.12	Private Health Insurance
D	CMS Clinical Codes	2.16.840.1.113883.3.249.12	Other

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

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

5.3.13 Performance Rate

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

Table 35: Performance Rate Contexts

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

Table 36: Performance Rate Constraints Overview

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

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

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

a. This code **SHALL** contain exactly one [1..1] `@code="72510-1"` Performance Rate (CONF:3259-21305).
b. This code **SHALL** contain exactly one [1..1] `@codeSystem="2.16.840.1.113883.6.1"` (CodeSystem: `LOINC urn:oid:2.16.840.1.113883.6.1`) (CONF:3259-21306).

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

Figure 32: Performance Rate Example

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

5.3.13.1 Performance Rate for Proportion Measure – CMS (V2)

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

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

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

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

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

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

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

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

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

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

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

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

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

10. **SHALL** contain exactly one [1..1] **`reference`** (CONF:2233-711203).
    a. This reference **SHALL** contain exactly one [1..1] **`@typeCode`**`="REFR"` refers to (CodeSystem: `HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002`) (CONF:2233-19652).
    b. This reference **SHALL** contain exactly one [1..1] **`externalObservation`** (CONF:2233-19653).
        i. This externalObservation **SHALL** contain exactly one [1..1] **`@classCode`** (CodeSystem: `HL7ActClass urn:oid:2.16.840.1.113883.5.6`) (CONF:2233-19654).
        ii. This externalObservation **SHALL** contain exactly one [1..1] **`id`** (CONF:2233-19655).
            1. This id **SHALL** contain exactly one [1..1] **`@root`** (CONF:2233-19656). Note: This is the ID of the numerator in the referenced 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:2233-21180).

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

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Performance Rate -->
  <templateId root="2.16.840.1.113883.10.20.27.3.30" extension="2016-
09-01"/>
  <!-- Performance Rate for Proportion Measure (V2) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.14" extension="2016-
09-01"/>
  <!-- Performance Rate for Proportion Measure – CMS (V2)
       template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.25" extension="2016-
11-01"/>
  <code code="72510-1" codeSystem="2.16.840.1.113883.6.1"
        displayName="Performance Rate"
        codeSystemName="2.16.840.1.113883.6.1"/>
  <statusCode code="completed"/>
  <value xsi:type="REAL" value="0.833000"/>
  <!-- This is the reference to the Numerator in the 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 39: Race Supplemental Data Element – CMS (V2) Contexts

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

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

Table 40: Race Supplemental Data Element - CMS Constraints Overview

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

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

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

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

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

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

5.3.15 Reporting Parameters Act

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

Table 41: Reporting Parameters Act Contexts

Contained By	Contains
Advancing Care Information Section (V2) (required) QRDA Category III Measure Section - CMS (V2) (required) Improvement Activity Section (V2) (required)	

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

Table 42: Reporting Parameters Act Constraints Overview

act[templateId/@root = '2.16.840.1.113883.10.20.27.3.8']

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

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

Figure 35: Reporting Parameters Act Example

```
<act classCode="ACT" moodCode="EVN">
    <!-- Reporting Parameters Act template ID -->
    <templateId root="2.16.840.1.113883.10.20.17.3.8"/>
    <id root="55a43e20-6463-46eb-81c3-9a3a1ad41225"/>
    <code code="252116004"
        codeSystem="2.16.840.1.113883.6.96"
        displayName="Observation Parameters" />
    <effectiveTime>
    <!-- The low value is the start date of the performance period-->
       <low value="20170101"/>
    <!-- The high value is the end date of the performance 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 43: Reporting Stratum – CMS Contexts

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

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

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

Table 44: Reporting Stratum – CMS Constraints Overview

observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.20']

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

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

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

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

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

i. This externalObservation **SHALL** contain exactly one [1..1] **id** (CONF:1109-18207).
Note: This is the ID of the stratum in the referenced eMeasure.

Figure 36: Reporting Stratum- CMS Example

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Reporting Stratum template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.4"/>
  <!-- Reporting Stratum - CMS template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.20"/>
  <code code="ASSERTION"
        codeSystem="2.16.840.1.113883.5.4"
        displayName="Assertion"
        codeSystemName="ActCode"/>
  <statusCode code="completed"/>
  <value xsi:type="CD" nullFlavor="OTH">
    <originalText>Stratum</originalText>
  </value>
  <entryRelationship typeCode="SUBJ" inversionInd="true">
    <!-- Aggregate Count - CMS -->
    <observation classCode="OBS" moodCode="EVN">
    ...
    </observation>
  </entryRelationship>
  <reference typeCode="REFR">
    <!-- Reference to the relevant strata in the 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 45: Sex Supplemental Data Element - CMS (V2) Contexts

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

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

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

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

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

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

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

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

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

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

6 eCQM Specifications for Eligible Clinicians and Eligible Professionals January 2017 Addendum to the April 2016 UUID List

The following tables list the Version Specific Measure Identifier for each eCQM included in the eCQM Specifications for Eligible Clinicians January 2017 (the January 2017 Addendum to the eCQM Specifications for Eligible Professionals April 2016), and the population identifiers for all population criteria within each eCQM. If an eCQM specifies Reporting Stratification, identifiers of reporting strata are also listed for that eCQM. **All UUIDs are case insensitive**.

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

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

(Note: all eCQM specifications contained in the eCQM Specifications for Eligible Clinicians January 2017 are proportion measures.)

Table 47: UUID List for eCQM Specifications Eligible Clinicians January 2017

NQF/ Quality #	eCQM CMS #	Version Specific Measure ID	Population ID	
0418/ 134	CMS2 v6	40280381-537c-f767-0153-c378bd7207a5	IPOP: DENOM: DENEX: NUMER: DENEXCEP:	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	IPOP: DENOM: DENEX: NUMER: DENEXCEP:	C7E7C7AF-464F-43A0-8C84-CDFF99953C97 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	IPOP: DENOM: NUMER:	E7A4AE77-FC46-44F1-BF25-9E99A89CED9B B710DA92-D4B9-4217-8D1E-94B35163BECE 9824B759-A263-44DE-9F5E-93DA4E8F4627
0405/ 160	CMS52 v5	40280381-51f0-825b-0152-2273af5a150b	IPOP 1: DENOM 1: NUMER 1: DENEXCEP 1: IPOP 2: DENOM 2: NUMER 2: DENEXCEP 2: IPOP 3: DENOM 3: NUMER 3:	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	IPOP: DENOM: DENEX: NUMER:	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	IPOP: DENOM: DENEX: NUMER:	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	IPOP: DENOM: DENEX: NUMER:	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	IPOP: DENOM: NUMER: DENEXCEP:	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	IPOP: DENOM: DENEX: NUMER: DENEXCEP:	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	IPOP: DENOM: NUMER: STRAT 1: STRAT 2: STRAT 3:	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	IPOP: DENOM: NUMER:	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	IPOP: DENOM: NUMER:	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	IPOP: DENOM: DENEX: NUMER:	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	IPOP: DENOM: NUMER:	DA379EC2-EE2E-4548-AEF0-DD4F14F80279 CC8AFFF0-A436-42CD-8322-5EBCEF9CBF06 AE7A33AF-0DA7-4772-A23C-2D2CA732D53A
0059/ 001	CMS122 v5	40280381-51f0-825b-0152-229afff616ee	IPOP: DENOM: NUMER:	0739FE2E-B8DE-4A56-B064-877CC8E0977D D346DA74-F16E-4159-BEDF-331BA28837FB 6D01A564-58CC-4CF5-929F-B83583701BFE
0056/ 163	CMS123 v5	40280381-51f0-825b-0152-229b7b2f16f9	IPOP: DENOM: DENEX: NUMER:	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	IPOP: DENOM: DENEX: NUMER:	3A29C38D-E468-47CC-995B-B281B1B066CF 7CDA5C1B-CD31-4D16-80C4-22AE2F549D88 45A2163C-25C2-4245-A3C6-0BEE64E18B64 3854BDE6-9614-475D-8E3B-5A041C04C291

NQF/ Quality #	eCQM CMS #	Version Specific Measure ID	Population ID	
2372/ 112	CMS125 v5	40280381-51f0-825b-0152-229c4ea3170c	IPOP: DENOM: DENEX: NUMER:	66FD640C-70BB-400F-9926-98EA1ACEBEBA 40FB2D5F-7DEF-4D41-80C4-F3FBA0ED5851 EC5CC49E-42A7-4DD8-BD40-A6258E71DCB9 0AB40D2B-08CE-4185-8A54-336C3140644D
0043/ 111	CMS127 v5	40280381-52fc-3a32-0153-1a646a2a0bfa	IPOP: DENOM: NUMER:	E1A2F7D4-0B24-47FC-9369-0700771B2D40 B57EA797-15A1-4C60-B34C-BAE292FE3B76 CBD0926D-6088-44EE-883C-0A0F9E77E2A1
0105/ 009	CMS128 v5	40280381-51f0-825b-0152-22a112d2172a	IPOP 1: DENOM 1: DENEX 1: NUMER 1: IPOP 2: DENOM 2: DENEX 2: NUMER 2:	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	IPOP: DENOM: NUMER: DENEXCEP:	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	IPOP: DENOM: DENEX: NUMER:	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	IPOP: DENOM: NUMER:	321FB2D3-477E-41B7-8BB1-02EE94D08417 98CE7ECC-1F09-4F52-906C-E53EAB545F00 3F48A9B6-7B99-4BF4-AB1E-50DC1FFB9D1A
0564/ 192	CMS132 v5	40280381-52fc-3a32-0153-1a2308830b04	IPOP: DENOM: DENEX: NUMER:	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	IPOP: DENOM: DENEX: NUMER:	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	IPOP: DENOM: NUMER:	A27FD818-3C97-4516-A796-319B89E306AC 0CC16DE4-474A-4F6E-BFB8-0104709B1E05 5647E3D0-6550-4B0B-AE76-53CD9E99D20B
2907/ 005	CMS135 v5	40280381-52fc-3a32-0153-62239c5d1ef6	IPOP: DENOM: NUMER: DENEXCEP:	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	IPOP 1: DENOM 1: DENEX 1: NUMER 1: IPOP 2: DENOM 2: DENEX 2: NUMER 2:	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	IPOP 1: DENOM 1: DENEX 1: NUMER 1: STRAT 1-1: STRAT 1-2: IPOP 2: DENOM 2: DENEX 2: NUMER 2: STRAT 2-1: STRAT 2-2:	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-81C0-45C9-9306-716EAE39CDDB 2654804B-E6DA-4401-AA8B-1FEEACC0C259
0028/ 226	CMS138 v5	40280381-503f-a1fc-0150-d33f5b0a1b8c	IPOP: DENOM: NUMER: DENEXCEP:	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	IPOP: DENOM: NUMER: DENEXCEP:	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	IPOP: DENOM: NUMER: DENEXCEP:	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	IPOP: DENOM: NUMER: DENEXCEP:	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	IPOP: DENOM: NUMER: DENEXCEP:	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	IPOP 1: DENOM 1: NUMER 1: DENEXCEP 1: IPOP 2: DENOM 2: NUMER 2: DENEXCEP 2:	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	IPOP: DENOM: DENEX: NUMER:	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	IPOP: DENOM: NUMER: DENEXCEP:	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	IPOP: DENOM: NUMER: DENEXCEP:	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	IPOP: DENOM: DENEX: NUMER: STRAT 1: STRAT 2:	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	IPOP: DENOM: DENEX: NUMER:	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	IPOP 1: DENOM 1: DENEX 1: NUMER 1: STRAT 1-1: STRAT 1-2: IPOP 2: DENOM 2: DENEX 2: NUMER 2: STRAT 2-1: STRAT 2-2: IPOP 3: DENOM 3: DENEX 3: NUMER 3: STRAT 3-1: STRAT 3-2:	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	IPOP 1: DENOM 1: NUMER 1: IPOP 2: DENOM 2: NUMER 2:	C7BCE5A3-AC0D-440E-AA29-C98239F37A8B 07F04D61-0383-487E-942C-690BBBC6437D 7A0001AC-4BE0-4FAA-94AE-4843C9FFFCA8 BC02D7CE-7133-46C6-8592-658668B09948 00401314-1B01-4896-A9FC-E991CDF29B6B FA7BF805-C21E-4077-B43E-C63F8D17B5CF
0384/ 143	CMS157 v5	40280381-52fc-3a32-0153-1a4425a90b6c	IPOP: DENOM: NUMER:	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	IPOP: DENOM: NUMER: DENEXCEP:	328FF8FF-8A53-42CF-A33E-789BC7E0D8ED 9826C75F-8106-44DE-AFB5-47669443C153 4ADA7675-6263-4018-997E-D27CE43A11D6 F77E40ED-F649-4250-B99A-3C35414D88B0
0710/ 370	CMS159 v5	40280381-5118-2f4e-0151-3a9382cd09ba	IPOP: DENOM: DENEX: NUMER:	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	
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1365/ 382	CMS177 v5	40280381-503f-a1fc-0151-11602d4d2909	IPOP: DENOM: NUMER:	008509CF-85E8-40C0-9434-65FE19EFC090 92E101F9-795A-46DD-BEDE-EA94743AC232 78D2FEEA-45D3-4D08-9227-773E70E3AAD5

7 Measure Identifiers

For all CMS eligible clinicians and eligible professionals programs reporting, certain identifiers are **mandatory**, meaning that they must be present in the QRDA-III report and no nulls are allowed. Exceptions and considerations are noted where applicable. Each Improvement Activity included in the QRDA-III report must reference its Activity ID. Each 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 48: 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	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: Expanded hours in evenings and weekends with access to the patient medical record (e.g., coordinate with small practices to provide alternate hour office visits and urgent care); Use of alternatives to increase access to care team by MIPS eligible clinicians and groups, such as e-visits, phone visits, group visits, home visits and alternate locations (e.g., senior centers and assisted living centers); and/or Provision of same-day or next-day access to a consistent MIPS eligible clinician, group or care team when needed for urgent care or transition management	IA_EPA_1
Use of telehealth services that expand practice access	Use of telehealth services and analysis of data for quality improvement, such as participation in remote specialty care consults or teleaudiology pilots that assess ability to still deliver quality care to patients.	IA_EPA_2
Collection and use of patient experience and satisfaction data on access	Collection of patient experience and satisfaction data on access to care and development of an improvement plan, such as outlining steps for improving communications with patients to help understanding of urgent access needs.	IA_EPA_3
Additional improvements in access as a result of QIN/QIO TA	As a result of Quality Innovation Network-Quality Improvement Organization technical assistance, performance of additional activities that improve access to services (e.g., investment of on-site diabetes educator).	IA_EPA_4
Participation in 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	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: 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;	IA_PM_2

Activity Name	Activity Description	Activity ID
	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; 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 For patients who demonstrate motivation, competency, and adherence, patients are managed using either a patient self-testing (PST) or patient-self-management (PSM) program. 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.	
RHC, IHS or FQHC quality improvement activities	Participating in a Rural Health Clinic (RHC), Indian Health Service Medium Management (IHS), or Federally Qualified Health Center in ongoing engagement activities that contribute to more formal quality reporting , and that include receiving quality data back for broader quality improvement and benchmarking improvement which will ultimately benefit patients. Participation in Indian Health Service, as an improvement activity, requires MIPS eligible clinicians and groups to deliver care to federally recognized American Indian and Alaska Native populations in the U.S. and in the course of that care implement continuous clinical practice improvement including reporting data on quality of services being provided and receiving feedback to make improvements over time.	IA_PM_3
Glycemic management services	For outpatient Medicare beneficiaries with diabetes and who are prescribed antidiabetic agents (e.g., insulin, sulfonylureas), MIPS eligible clinicians and groups must attest to having: For the first performance year, at least 60 percent of medical records with documentation of an individualized glycemic treatment goal that: a) Takes into account patient-specific factors, including, at least 1) age, 2) comorbidities, and 3) risk for hypoglycemia, and b) Is reassessed at least annually. The performance threshold will increase to 75 percent for the second performance year and onward. Clinician would attest that, 60 percent for first year, or 75 percent for the second year, of their medical records that document individualized glycemic treatment represent patients who are being treated for at least 90 days during the performance period.	IA_PM_4
Engagement of community for health status improvement	Take steps to improve health status of communities, such as collaborating with key partners and stakeholders to implement evidenced-based practices to improve a specific chronic condition. Refer to the local Quality Improvement Organization (QIO) for additional steps to take for improving health status of communities as there are many steps to select from for satisfying this activity. QIOs work under the direction of CMS to assist MIPS eligible clinicians and groups with quality improvement, and review quality concerns for the protection of beneficiaries and the Medicare Trust Fund.	IA_PM_5

Activity Name	Activity Description	Activity ID
Use of toolsets or other resources to close healthcare disparities across communities	Take steps to improve healthcare disparities, such as Population Health Toolkit or other resources identified by CMS, the Learning and Action Network, Quality Innovation Network, or National Coordinating Center. Refer to the local Quality Improvement Organization (QIO) for additional steps to take for improving health status of communities as there are many steps to select from for satisfying this activity. QIOs work under the direction of CMS to assist eligible clinicians and groups with quality improvement, and review quality concerns for the protection of beneficiaries and the Medicare Trust Fund.	IA_PM_6
Use of QCDR for feedback reports that incorporate population health	Use of a QCDR to generate regular feedback reports that summarize local practice patterns and treatment outcomes, including for vulnerable populations.	IA_PM_7
Participation in 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	IA_PM_13

Activity Name	Activity Description	Activity ID
	advance care planning; Use condition-specific pathways for care of chronic conditions (e.g., hypertension, diabetes, depression, asthma and heart failure) with 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	Membership and participation in a CMS Partnership for Patients Hospital	IA_CC_5

Activity Name	Activity Description	Activity ID
Engagement Network	Engagement Network.	
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	Establish standard operations to manage transitions of care that could include one or more of the following: Establish formalized lines of communication with local settings in which empaneled patients receive care to ensure documented flow of information and seamless transitions in care; and/or Partner with community or hospital-based transitional care services.	IA_CC_11
Care coordination agreements that promote improvements in patient tracking across settings	Establish effective care coordination and active referral management that could include one or more of the following: Establish care coordination agreements with frequently used consultants that set expectations for documented flow of information and MIPS eligible clinician or MIPS eligible clinician group expectations between settings. Provide patients with information that sets their expectations consistently with the care coordination agreements; Track patients referred to specialist through the entire process; and/or Systematically integrate information from referrals into the plan of care.	IA_CC_12
Practice improvements for bilateral exchange of patient information	Ensure that there is bilateral exchange of necessary patient information to guide patient care that could include one or more of the following: Participate in a Health Information Exchange if available; and/or Use structured referral notes.	IA_CC_13
Practice improvements that	Develop pathways to neighborhood/community-based resources to support patient health goals that could include one or more of the	IA_CC_14

Activity Name	Activity Description	Activity ID
engage community resources to support patient health goals	following: Maintain formal (referral) links to community-based chronic disease self-management support programs, exercise programs and other wellness resources with the potential for bidirectional flow of information; and/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	Participation in a QCDR, that promotes collaborative learning network opportunities that are interactive.	IA_BE_8

Activity Name	Activity Description	Activity ID
that are interactive.		
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

Activity Name	Activity Description	Activity ID
Use group visits for common chronic conditions (e.g., diabetes).	Use group visits for common chronic conditions (e.g., diabetes).	IA_BE_19
Implementation of condition-specific chronic disease self-management support programs	Provide condition-specific chronic disease self-management support programs or coaching or link patients to those programs in the community.	IA_BE_20
Improved practices that disseminate appropriate self-management materials	Provide self-management materials at an appropriate literacy level and in an appropriate language.	IA_BE_21
Improved practices that engage patients pre-visit	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	Use of QCDR data, for ongoing practice assessment and improvements in patient safety.	IA_PSPA_7

Activity Name	Activity Description	Activity ID
assessment and improvements		
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 pharyngitis, 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	IA_PSPA_18

Activity Name	Activity Description	Activity ID
	performance at the practice level and panel level.	
Implementation of formal quality improvement methods, practice changes or other practice improvement processes	Adopt a formal model for quality improvement and create a culture in which all staff actively participates in improvement activities that could include one or more of the following: 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.	IA_PSPA_19
Leadership engagement in regular guidance and demonstrated commitment for implementing practice improvement changes	Ensure full engagement of clinical and administrative leadership in practice improvement that could include one or more of the following: Make responsibility for guidance of practice change a component of clinical and administrative leadership roles; Allocate time for clinical and administrative leadership for practice improvement efforts, including participation in regular team meetings; and/or Incorporate population health, quality and patient experience metrics in regular reviews of practice performance.	IA_PSPA_20
Implementation of fall screening and assessment programs	Implementation of fall screening and assessment programs to identify patients at risk for falls and address modifiable risk factors (e.g., Clinical decision support/prompts in the electronic health record that help manage the use of medications, such as benzodiazepines, that increase fall risk).	IA_PSPA_21
Engagement of new Medicaid patients and follow-up	Seeing new and follow-up Medicaid patients in a timely manner, including individuals dually eligible for Medicaid and Medicare.	IA_AHE_1
Leveraging a QCDR to standardize processes for screening	Participation in a QCDR, demonstrating performance of activities for use of standardized processes for screening for social determinants of health such as food security, employment and housing. Use of supporting tools that can be incorporated into the certified EHR technology is also suggested.	IA_AHE_2
Leveraging a QCDR to promote use of patient-reported outcome tools	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).	IA_AHE_3
Leveraging a QCDR for use of standard questionnaires	Participation in a QCDR, demonstrating performance of activities for use of standard questionnaires for assessing improvements in health disparities related to functional health status (e.g., use of Seattle Angina Questionnaire, MD Anderson Symptom Inventory, and/or SF-12/VR-12 functional health status assessment).	IA_AHE_4
Participation on Disaster Medical Assistance Team, registered for 6 months.	Participation in Disaster Medical Assistance Teams, or Community Emergency Responder Teams. Activities that simply involve registration are not sufficient. MIPS eligible clinicians and MIPS eligible clinician groups must be registered for a minimum of 6 months as a volunteer for disaster or emergency response.	IA_ERP_1

Activity Name	Activity Description	Activity ID
Participation in a 60-day or greater effort to support domestic or international humanitarian needs.	Participation in domestic or international humanitarian volunteer work. Activities that simply involve registration are not sufficient. MIPS eligible clinicians and groups attest to domestic or international humanitarian volunteer work for a period of a continuous 60 days or greater.	IA_ERP_2
Diabetes screening	Diabetes screening for people with schizophrenia or bipolar disease who are using antipsychotic medication.	IA_BMH_1
Tobacco use	Tobacco use: Regular engagement of MIPS eligible clinicians or groups in integrated prevention and treatment interventions, including tobacco use screening and cessation interventions (refer to NQF #0028) for patients with co-occurring conditions of behavioral or mental health and at risk factors for tobacco dependence.	IA_BMH_2
Unhealthy alcohol use	Unhealthy alcohol use: Regular engagement of MIPS eligible clinicians or groups in integrated prevention and treatment interventions, including screening and brief counseling (refer to NQF #2152) for patients with co-occurring conditions of behavioral or mental health conditions.	IA_BMH_3
Depression screening	Depression screening and follow-up plan: Regular engagement of MIPS eligible clinicians or groups in integrated prevention and treatment interventions, including depression screening and follow-up plan (refer to NQF #0418) for patients with co-occurring conditions of behavioral or mental health conditions.	IA_BMH_4
MDD prevention and treatment interventions	Major depressive disorder: Regular engagement of MIPS eligible clinicians or groups in integrated prevention and treatment interventions, including suicide risk assessment (refer to NQF #0104) for mental health patients with co-occurring conditions of behavioral or mental health conditions.	IA_BMH_5
Implementation of co-location PCP and MH services	Integration facilitation, and promotion of the colocation of mental health and substance use disorder services in primary and/or non-primary clinical care settings.	IA_BMH_6
Implementation of integrated PCBH model	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: 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; and/or Integrate behavioral health and medical care plans and facilitate integration through co-location of services when feasible.	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 49: 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
	ACI_LVPP_1	*Proposed ePrescribing Exclusion	Yes/No
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_LVOTC_1	*Proposed Send a Summary of Care Exclusion	Yes/No
	ACI_HIE_2	Request/Accept Summary of Care	Numerator/Denominator
	ACI_LVITC_1	*Proposed Request/Accept Summary of Care Exclusion	Yes/No
	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

* Proposed exclusions in the 2018 Notice of Proposed Rule Making for the Quality Payment Program's 2018 Performance Period. These exclusions may be finalized in the final rule. In order for the exclusion to be accepted, the associated measure must have a zero or null in the Numerator/Denominator field.

Table 50: 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
	ACI_TRANS_LVPP_1	*Proposed e-Prescribing Exclusion	Yes/No
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
	ACI_TRANS_LVTOC_1	*Proposed Health Information Exchange Exclusion	Yes/No
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

* Proposed exclusions in the 2018 Notice of Proposed Rule Making for the Quality Payment Program's 2018 Performance Period. These exclusions may be finalized in the final rule. In order for the exclusion to be accepted, the associated measure must have a zero or null in the Numerator/Denominator field.

Table 51: Attestation Statements Identifiers

Identifier	Attestation Statement	Reporting Metric
ACI_INFBLO_1	Prevention of Information Blocking Attestation	Yes/No
ACI_ONCDIR_1	ONC Direct Review Attestation	Yes/No
ACI_ONCACB_1	ONC-ACB Surveillance Attestation (Optional)	Yes/No

APPENDIX

8 Troubleshooting and Support

8.1 Resources

The following provide additional information:

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

8.2 Support

Table 52: Support Contact Information

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

8.3 Errata or Enhancement Requests

Table 53: Errata or Enhancement Request Location

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

9 Null Flavor Validation Rules for Data Types

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

Table 54: 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 55: NPI Validation Rules and Table 56: TIN Validation Rules list the validation rules performed on the NPI and TIN.

Table 55: 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 56: TIN Validation Rules

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

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

This table lists all changes made to this 2017 guide from the "Base Standard", the *HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture, Category III, STU Release 2.1*.

Table 57: Changes Made to the QRDA-III Base Standard

CONF. #	Section	Base Standard	Changed To
711280 711281 711305	5.1	n/a	**SHALL** contain exactly one [1..1] **templateId** (CONF:2233-711280) such that it **SHALL** contain exactly one [1..1] **@root="**2.16.840.1.113883.10.20.27.1.2**"** (CONF:2233-711281). **SHALL** contain exactly one [1..1] **@extension="**2017-07-01**"** (CONF:2233-711305).
711174 711246	5.1	**SHALL** contain exactly one [1..1] **confidentialityCode**, which **SHOULD** be selected from ValueSet HL7 BasicConfidentialityKind urn:oid:2.16.840.1.113883.1.11.16926 **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).

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

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

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

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

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

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

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

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

CONF. #	Section	Base Standard	Changed To
711296	5.3.11	**SHALL** contain exactly one [1..1] **`Measure Data (V2)`** `(identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.5:2016-02-01)` (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`**`="2016-11-01"` (CONF:2233-711299).
711196 711230	5.3.12	n/a	**SHALL** contain exactly one [1..1] **`value`** with @xsi:type="CD" (CONF:2233-711196). This value **SHALL** contain exactly one [1..1] **`translation`** (CONF:2233-711230).
711231	5.3.12	n/a	This translation **SHALL** contain exactly one [1..1] **`@code`**, which **SHALL** be selected from ValueSet `CMS Payer Groupings` `2.16.840.1.113883.3.249.14.102` (CONF:2233-711231).
711229	5.3.12	n/a	This value **SHALL** contain exactly one [1..1] **`@nullFlavor`**`="OTH"` (CONF:2233-711229).
711199	5.3.12	**SHALL** contain exactly one [1..1] **`Aggregate Count`** `(identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3)` (CONF:18111).	**SHALL** contain exactly one [1..1] `Aggregate Count - CMS` `(identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24)` (CONF:2233-711199).

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

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

12 Change Log – Changes from the 2016 CMS QRDA Implementation Guide

This appendix summarizes the changes made in this 2017 CMS QRDA Eligible Clinicians and EPs 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 58: Changes Made to the 2017 CMS Eligible Clinicians and EPs QRDA IG from 2016 CMS QRDA IG Part B

Section Heading	2017 CMS QRDA-III Eligible Clinicians and EPs IG	2016 CMS QRDA IG Part B
Base standard	HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture, Category III, STU Release 2.1	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 performance period.	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/@typeCode="LOC" **SHALL** be present (CONF:2233-711248). If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="CPCPLUS", then QRDA Category III Measure Section – CMS (V2) **SHALL** be present (CONF:2233-711340). If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="CPCPLUS", then Performance Rate for Proportion Measure – CMS (V2) **SHALL** be present (CONF:2233-711342).	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/@typeCode="LOC" **SHALL** be present (CONF:711248).

Section Heading	2017 CMS QRDA-III Eligible Clinicians and EPs IG	2016 CMS QRDA IG Part B
QRDA-III CMS Program Name value set	CPCPLUS MIPS_INDIV MIPS_GROUP	CPC PQRS_MU_INDIVIDUAL PQRS_MU_GROUP MU_ONLY
5.1.7 participant is Location	This associatedEntity **SHALL** contain exactly one [1..1] **id** (CONF:2233-711154). This id **SHALL** contain exactly one [1..1] **@root="**2.16.840.1.113883.3.249.5.1**"** CPC Practice Site (CONF:2233-711155). Note: This OID contained in the @root (2.16.840.1.113883.3.249.5.1) designates that the @extension must hold a CPCPLUS APM Entity Identifier. This id **SHALL** contain exactly one [1..1] **@extension** (CONF:2233-711156). Note: This is the CPCPLUS APM Entity Identifier assigned to the CPC+ practice site.	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. 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.
5.1.10 component	This structuredBody **SHALL NOT** contain [0..0] **component** (CONF:2233-711341) such that it **SHALL** contain exactly one [1..1] QRDA Category III Reporting Parameters Section (identifier: urn:oid:2.16.840.1.113883.10.20.27.2.2) (CONF:2233-17282).	This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:17281) such that it **SHALL** contain exactly one [1..1] QRDA Category III Reporting Parameters Section (CMS EP) (templateId:2.16.840.1.113883.10.20.27.2.6) (CONF:711141).
5.1.10 component	This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:2233-17283) such that it **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).	This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:17283) such that it **SHALL** contain exactly one [1..1] QRDA Category III Measure Section (CMS EP) (templateId:2.16.840.1.113883.10.20.27.2.3) (CONF:711142).

Section Heading	2017 CMS QRDA-III Eligible Clinicians and EPs IG	2016 CMS QRDA IG Part B
5.1.10 component	This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:2233-21173) such that it **SHALL** contain exactly one [1..1] Improvement Activity Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.4:2017-06-01) (CONF:2233-21174).	n/a
5.1.10 component	This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:2233-21317) such that it **SHALL** contain exactly one [1..1] Advancing Care Information Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.5:2017-06-01) (CONF:2233-21318).	n/a
5.1.10 component	This structuredBody **SHALL** contain at least a QRDA Category III Measure Section - CMS (V2), or an Improvement Activity Section (V2), or an Advancing Care Information Section (V2) (CONF:2233-711311).	n/a
5.2.1.1 Advancing Care Information Section (V2)	New section (added to support MIPS)	n/a
5.2.1.2 Improvement Activity Section (V2)	New section (added to support MIPS)	n/a

Section Heading	2017 CMS QRDA-III Eligible Clinicians and EPs IG	2016 CMS QRDA IG Part B
5.2.1.3 QRDA Category III Measure Section – CMS (V2)	Conforms to `QRDA Category III Measure Section (V4)` template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.1:2017-06-01). **SHALL** contain exactly one [1..1] **`templateId`** (CONF:2233-711276) such that it **SHALL** contain exactly one [1..1] **`@root`**`="2.16.840.1.113883.10.20.27.2.3"` (CONF:2233-711277). **SHALL** contain exactly one [1..1] **`@extension`**`="2017-07-01"` (CONF:2233-711286). **SHALL** contain exactly one [1..1] **`templateId`** (CONF:2233-17284) such that it **SHALL** contain exactly one [1..1] **`@root`**`="2.16.840.1.113883.10.20.27.2.1"` (CONF:2233-17285). Note: QRDA Category III Measure Section (V4) templateId **SHALL** contain exactly one [1..1] **`@extension`**`="2017-06-01"` (CONF:2233-711285).	8.2.1 QRDA Category III Measure Section (CMS EP) Conforms to QRDA Category III Measure Section template `(2.16.840.1.113883.10.20.27.2.1)`. **SHALL** contain exactly one [1..1] **`templateId`** (CONF:711276) such that it **SHALL** contain exactly one [1..1] **`@root`**`="2.16.840.1.113883.10.20.27.2.3"` (CONF:711277). **SHALL** contain exactly one [1..1] **`templateId`** (CONF:17284) such that it **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
QRDA Category III Reporting Parameters Section - CMS	n/a	8.2.2 QRDA Category III Reporting Parameters Section (CMS EP) 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). **SHALL** contain exactly one [1..1] **`templateId`** (CONF:711278) such that it **SHALL** contain exactly one [1..1] **`@root`**`="2.16.840.1.113883.10.20.27.2.6"` (CONF:711279). **SHALL** contain exactly one [1..1] **`entry`** (CONF:711285) such that it **SHALL** contain exactly one [1..1] `Reporting Parameters Act (CMS EP) (templateId:2.16.840.1.113883.10.20.27.3.23)` (CONF:711175).

Section Heading	2017 CMS QRDA-III Eligible Clinicians and EPs IG	2016 CMS QRDA IG Part B
5.3.1 Advancing care information Measure Performed Measure Reference and Results	New section (added to support MIPS)	
5.3.2 Advancing care information Numerator Denominator Type Measure Reference and Results	New section (added to support MIPS)	n/a
5.3.3 Advancing care information Numerator Denominator Type Measure Denominator Data	New section (added to support MIPS)	n/a
5.3.4 Advancing care information Numerator Denominator Type Measure Numerator Data	New section (added to support MIPS)	n/a

Section Heading	2017 CMS QRDA-III Eligible Clinicians and EPs IG	2016 CMS QRDA IG Part B
5.3.7 Ethnicity Supplemental Data Element – CMS (V2)	Conforms to `Ethnicity Supplemental Data Element (V2)` template `(identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.7:2016-09-01)`. **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). **SHALL** contain exactly one [1..1] **`templateId`** (CONF:1109-18218) such that it **SHALL** contain exactly one [1..1] **`@root`**`="2.16.840.1.113883.10.20.27.3.7"` (CONF:1109-18219). Note: Ethnicity Supplemental Data Element (V2) templateId **SHALL** contain zero or one [0..1] **`@extension`**`="2016-09-01"` (CONF:2233-21176). **SHALL** contain exactly one [1..1] **`code`** (CONF:1109-18220). This code **SHALL** contain exactly one [1..1] **`@code`**`="69490-1"` Ethnic (CONF:2233-18221). 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).	8.3.3 Ethnicity Supplemental Data Element (CMS EP) **SHALL** contain exactly one [1..1] **`templateId`** (CONF:711253) such that it **SHALL** contain exactly one [1..1] **`@root`**`="2.16.840.1.113883.10.20.27.3.22"` (CONF:711254). **SHALL** contain exactly one [1..1] **`templateId`** (CONF:18218) such that it **SHALL** contain exactly one [1..1] **`@root`**`="2.16.840.1.113883.10.20.27.3.7"` (CONF:18219). Note: Ethnicity Supplemental Data Element templateId **SHALL** contain exactly one [1..1] **`code`** (CONF:18220). This code **SHALL** contain exactly one [1..1] **`@code`**`="364699009"` Ethnic Group (CodeSystem: `SNOMED CT 2.16.840.1.113883.6.96`) (CONF:18221).
5.3.8 Improvement Activity Performed Measure Reference and Results	New section (added to support MIPS)	n/a

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

Section Heading	2017 CMS QRDA-III Eligible Clinicians and EPs IG	2016 CMS QRDA IG Part B
5.3.11 Measure Reference and Results - CMS (V2)	Conforms to `Measure Reference and Results (V3)` template `(identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.1:2016-09-01)`. **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). **SHALL** contain exactly one [1..1] **`templateId`** (CONF:2233-17908) such that it **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 **SHALL** contain exactly one [1..1] **`@extension="`**`2016-09-01`**`"** (CONF:2233-21170).	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)`. **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).  **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`**`"**

Section Heading	2017 CMS QRDA-III Eligible Clinicians and EPs IG	2016 CMS QRDA IG Part B
5.3.12 Payer Supplemental Data Element - CMS(V2)	Conforms to Payer Supplemental Data Element (V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.9:2016-02-01). **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). **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-18237) such that it **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 templateId (QRDA III) **SHALL** contain exactly one [1..1] **@extension**="2016-02-01" (CONF:2233-21157). **SHALL** contain exactly one [1..1] **code** (CONF:2233-21158). This code **SHALL** contain exactly one [1..1] **@code**="48768-6" Payment Source (CONF:2233-21159). 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).	8.3.6 Payer Supplemental Data Element (CMS EP) Conforms to Payer Supplemental Data Element template (2.16.840.1.113883.10.20.27.3.9). **SHALL** contain exactly one [1..1] **templateId** (CONF:711270) such that it **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.27.3.18" (CONF:711271). **SHALL** contain exactly one [1..1] **templateId** (CONF:12561) such that it a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.55" (CONF:12562). Note: Payer Characteristic Payer templateId **SHALL** contain exactly one [1..1] **templateId** (CONF:18237) such that it a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.27.3.9" (CONF:18238). Note: Payer Supplemental Data Element templateId
5.3.13 Performance Rate	New section	n/a

Section Heading	2017 CMS QRDA-III Eligible Clinicians and EPs IG	2016 CMS QRDA IG Part B
5.3.13.1 Performance Rate for Proportion Measure – CMS (V2)	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). **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). **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-19649) such that it **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 **SHALL** contain exactly one [1..1] **@extension**="2016-09-01" (CONF:2233-711321). **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-711332) such that it **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.27.3.30" (CONF:2233-711334). **SHALL** contain exactly one [1..1] **@extension**="2016-09-01" (CONF:2233-711335).	Conforms to Performance Rate for Proportion Measure template (2.16.840.1.113883.10.20.27.3.14). **SHALL** contain exactly one [1..1] **templateId** (CONF:711255) such that it a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.27.3.25" (CONF:711256). **SHALL** contain exactly one [1..1] **templateId** (CONF:19649) such that it a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.27.3.14" (CONF:19650).

Section Heading	2017 CMS QRDA-III Eligible Clinicians and EPs IG	2016 CMS QRDA IG Part B
5.3.14 Race Supplemental Data Element – CMS (V2)	Conforms to `Race Supplemental Data Element (V2)` template `(identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.8:2016-09-01)`. **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). **SHALL** contain exactly one [1..1] **`templateId`** (CONF:2233-18225) such that it **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 **SHALL** contain zero or one [0..1] **`@extension`**`="2016-09-01"` (CONF:2233-21178). **SHALL** contain exactly one [1..1] **`code`** (CONF:2233-18227). This code **SHALL** contain exactly one [1..1] **`@code`**`="72826-1"` Race (CONF:2233-18228). 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).	8.3.8 Race Supplemental Data Element (CMS EP) Conforms to Race Supplemental Data Element template `(2.16.840.1.113883.10.20.27.3.8)`. **SHALL** contain exactly one [1..1] **`templateId`** (CONF:711257) such that it **SHALL** contain exactly one [1..1] **`@root`**`="2.16.840.1.113883.10.20.27.3.19"` (CONF:711258). **SHALL** contain exactly one [1..1] **`templateId`** (CONF:18225) such that it **SHALL** contain exactly one [1..1] **`@root`**`="2.16.840.1.113883.10.20.27.3.8"` (CONF:18226). Note: Race Supplemental Data Element templateId **SHALL** contain exactly one [1..1] **`code`** (CONF:18227). This code **SHALL** contain exactly one [1..1] **`@code`**`="103579009"` Race (CodeSystem: `SNOMED CT 2.16.840.1.113883.6.96`) (CONF:18228).

Section Heading	2017 CMS QRDA-III Eligible Clinicians and EPs IG	2016 CMS QRDA IG Part B
5.3.15 Reporting Parameters Act	Reporting Parameters Act (identifier urn:oid:2.16.840.1.113883.10.20.17.3.)	8.3.9 Reporting Parameters Act (CMS EP) **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). **SHALL** contain exactly one [1..1] **`effectiveTime`** (CONF:3273). This effectiveTime **SHALL** contain exactly one [1..1] **`low`** (CONF:3274). i. This low **SHALL** contain exactly one [1..1] **`@value="`**`20160101"` (CONF:711292). Note: For Program Year 2016, the reporting parameter start date SHALL be "20160101". This effectiveTime **SHALL** contain exactly one [1..1] **`high`** (CONF:3275). 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".

Section Heading	2017 CMS QRDA-III Eligible Clinicians and EPs IG	2016 CMS QRDA IG Part B
5.3.17 Sex Supplemental Data Element – CMS (V2)	Conforms to `Sex Supplemental Data Element (V3)` template `(identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.6:2016-09-01)`. **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). **SHALL** contain exactly one [1..1] **`templateId`** (CONF:2233-18232) such that it **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 **SHALL** contain exactly one [1..1] **`@extension="`**`2016-09-01`**`"** (CONF:2233-21160). **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).	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)`. **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).  **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 **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).
6 eCQM Specifications for Eligible Professionals January 2017 Addendum to the April 2016 UUID List	New section	n/a
7 Measure Identifiers	New section	n/a

13 Change Log – Changes from the 2017 CMS QRDA III Eligible Clinicians and EPs IG v0.1

The 2017 CMS QRDA III Eligible Clinicians and Eligible Professionals Implementation Guide version 0.1 was published on 12/29/2016. This change log summarizes the main changes made in this guide from version 0.1.

Summary of changes:

- Updated the base standard from the HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture, Category III, STU Release 2 to the HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture, Category III, STU Release 2.1.
    - The Reporting Parameters Act template is added within each section, ACI, IA, and measures (eCQMs), to allow different performance period to be specified for each section within a QRDA-III report
    - Performance rate for ACI measures is changed from required to optional. MIPS does not require performance rate to be submitted, if performance rate is submitted, it will be ignored by the receiving system.
- Updated the language to specify that the eCQM Specifications for Eligible Clinicians January 2017 (January 2017 Addendum to the eCQM Specifications for Eligible Professionals April 2016) must be used for the 2017 performance period.
- 4.2 Merit-Based Incentive Payments (MIPS) QRDA-III Submissions: updated the language to reflect the requirement updates for the 2017 performance period.
- 4.3 Identifiers: updated the TIN and NPI requirements for clarity.
- 4.4 Succession Management: updated the language about the Final Action Processing for MIPS.
- 5.1.4 informationRecipient: updated the CMS Program Names.
- 5.1.8 documentationOf: added language to clarify TIN and NPI requirements.
- 5.1.10 component: performance period must now be specified using the Reporting Parameters Act template within each section, as a result of this requirement change:
    - The QRDA Category III Reporting Parameters Section – CMS (V2) is deprecated.
    - The use of QRDA Category III Reporting Parameters Section from the base standard is constrained out (SHALL NOT).
    - Referenced the updated version of QRDA Category III Measures Section – CMS (V2), Improvement Activity Section (V2), and Advancing Care Information Section (V2).
- 5.2.1.1 Advancing Care Information Section (V2): updated to reflect the updates made to the base standard QRDA-III R1 STU R2.1
    - The Template Id extension is updated to “2017-06-01”.
    - Updated to reference the Advancing Care Information Numerator Denominator Type Measure Reference and Results (V2).
    - Updated to contain the newly added Reporting Parameters Act.
- 5.2.1.2 Improvement Activity Section (V2): updated to reflect the updates made to the base standard QRDA-III R1 STU R2.1
    - The Template Id extension is updated to “2017-06-01”.
    - Updated to contain the newly added Reporting Parameters Act.
- 5.2.1.3 QRDA Category III Measure - CMS (V2): updated to reflect the updates made to the base standard QRDA-III R1 STU R2.1
    - The Template Id extension is updated to “2017-07-01”.

    - Updated to conform to the QRDA Category III Measure Section (V4) from the base standard QRDA-III R1 STU R2.1.
    - Updated to contain the newly added Reporting Parameters Act.
- Deprecated QRDA Category III Reporting Parameters Section – CMS (V2).
- 5.3.2 Advancing Care Information Numerator Denominator Type Measure Reference and Results (V2): updated to reflect the updates made to the base standard HL7 QRDA-III STU R2.1.
    - The Template Id extension is updated to “2017-06-01”.
    - Performance Rate for ACI measures is changed from required to optional.
- 5.3.5 Aggregate Count: added this template from the base standard to this guide.
- 5.3.15 Reporting Parameters Act:
    - Deprecated Reporting Parameters Act – CMS (V2).
    - Performance period is reported using Reporting Parameters Act.
- 7 Measure Identifiers:
    - Added identifiers: ACI_LVPP_1, ACI_LVOTC_1, ACI_LVITC_1.
    - Added identifiers: ACI_TRANS_LVPP_1, ACI_TRANS_LVTOC_1.
    - Added identifiers for attestation statements.
- 8.1 Resources: added resource for the Quality Payment Program.
- 8.2 Support: updated the support contact information.

14 Acronyms

This section describes acronyms used in this guide.

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

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

15 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.

16 References

Comprehensive Primary Care Plus (CPC+). https://innovation.cms.gov/initiatives/comprehensive-primary-care-plus

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 III, Release 1, Draft Standard for Trial Use, Release 2.1, 2017 http://www.hl7.org/implement/standards/product_brief.cfm?product_id=286

ONC, Electronic Clinical Quality Measure issue reporting system. https://oncprojectracking.healthit.gov/

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

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