



# **CMS Implementation Guide for Quality Reporting Document Architecture Category I and Category III**

## **Eligible Professional Programs and Hospital Quality Reporting (HQR)**

### **Supplementary Implementation Guide for 2015**

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**Version: 1.0  
07/29/2014**

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# Combined QRDA Guide Overview

## 1. Introduction

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### 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 initiatives.

This combined QRDA guide contains the Centers for Medicare & Medicaid Services (CMS) supplemental implementation guides to the *HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture, Category I, DSTU Release 2, (US Realm), Draft Standard for Trial Use—July 2012* (and its December 2012 and 2014<sup>1</sup> errata updates) and the *HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture, Category III, DSTU Release 1, November 2012* and its 2014 errata update<sup>2</sup> for the 2015 reporting year.

This guide combines business requirements and information from three previously published CMS guides and is updated for the 2015 reporting year:

- The 2014 CMS QRDA Implementation Guide for Eligible Hospital Clinical Quality Measures — *Hospital Quality Reporting (HQR) Quality Reporting Document Architecture Category I, Release 2, Supplementary Implementation Guide, Version 2.2* (4/21/2014).
- The 2014 CMS QRDA I Implementation Guides for Eligible Professionals Clinical Quality Measures — *CMS Eligible Professional Programs Quality Reporting Document Architecture Category I, DSTU Release 2, Supplementary Implementation Guide for 2014, Version 4.0* (4/18/2014).
- The 2014 CMS QRDA III Implementation Guides for Eligible Professionals Clinical Quality Measures — *CMS Eligible Professional Programs Quality Reporting Document Architecture Category III, Release 1, Implementation Guide for 2014, Version 2.0* (4/18/2014).

Combining the above three guides into a single document provides a unified resource for implementers, eliminating the need to locate the individual program guides at several sources. Most importantly, combining guides harmonized discrepancies among earlier versions of the CMS QRDA guides, especially between the QRDA-I guides for the Eligible Professional (EP) programs and Hospital Quality Reporting (HQR). Harmonization also provided the opportunity to align business requirements among various programs. Creating a combined QRDA guide is a step toward producing a single CMS QRDA guide with minimum CMS specific constraints to the base HL7 QRDA standards to be shared by various CMS programs.

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<sup>1</sup> A new DSTU errata update to the *HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture, Category I, DSTU Release 2, (US Realm)* is currently under development and is expected to be released in summer 2014.

<sup>2</sup> A new DSTU errata update to the *HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture, Category III, DSTU Release 1, (US Realm)* is currently under development and is expected to be released in summer 2014.

## 1.2 Organization of the Guide

This preliminary portion contains introductory material that pertains to all three CMS QRDA standards.

- 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

PART A: QRDA-I DSTU R2 Supplementary Implementation Guide for Eligible Professional Programs and Hospital Quality Reporting

- Chapter 3: Overview
- Chapter 4: QRDA Category I Requirements — includes reporting requirements and information on succession management, value sets, and time zones
- Chapter 5: QRDA Category I Validation — contains the formal definitions for the QRDA Category I Report:
  - Document-level template that defines the document type and header constraints specific to CMS reporting
  - Section-level templates that define measure reporting, reporting parameters, and patient data
  - Entry-level templates

PART B — QRDA-III DSTU R1 Supplementary Implementation Guide for Eligible Professional Programs

- Chapter 6: Overview
- Chapter 7: QRDA Category III Submission Rules — includes guidelines for submissions under the Comprehensive Primary Care (CPC) initiative, the Electronic Health Record (EHR) Incentive Program (Meaningful Use), and the Physician Quality Reporting System (PQRS) Program.
- Chapter 8: QRDA Category III Validation — contains the formal definitions for the QRDA Category III Report for the CMS EP 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

APPENDIX: Chapters 9-15 provide references and resources, including a list of all changes made to the QRDA Category I base standard to produce the Supplementary Implementation Guide in Part A, a list of all changes made to the QRDA Category III base standard to produce the Supplementary Implementation Guide in Part B, and a list of changes made to the three CMS QRDA implementation guides for 2014.

## 2. Conformance Conventions Used in This Guide

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### 2.1 Conformance Verbs (Keywords)

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

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

## 2.2 Cardinality

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

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

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

**Figure 1: Constraints Format – only one allowed**

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

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

**Figure 2: Constraints Format – only one like this allowed**

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

## 2.3 Null Flavor

Information technology solutions store and manage data, but sometimes data are not available; an item may be unknown, not relevant, or not computable or 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 above list contains those null flavors that are commonly used in clinical documents. For the full list and descriptions, see the `nullFlavor` vocabulary domain in the in the HL7 standard, *Clinical Document Architecture, Release 2.0*.

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

# PART A — QRDA-I DSTU R2 Supplementary Implementation Guide for Eligible Professional Programs and Hospital Quality Reporting

## 3. Overview

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### 3.1 Background

Part A of this guide is a CMS Quality Reporting Document Architecture Category I (QRDA-I) supplementary implementation guide to *the HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture, Category I, DSTU Release 2, (US Realm), Draft Standard for Trial Use—July 2012*, its December 21, 2012 errata update, and its 2014 errata update (together referred to as the *QRDA-I Implementation Guide* in this guide). This guide describes additional conformance statements and constraints for electronic health record (EHR) data submissions that are required for reporting information to the Centers for Medicare and Medicaid Services (CMS) EHR Incentive Program and the Hospital Inpatient Quality Reporting Program 2015 Reporting Year for both the Eligible Professional programs and the Hospital Quality Reporting.

The purpose of this Part A of the supplemental guide is to serve as a companion to the original *QRDA-I Implementation Guide* for entities such as Eligible Professional (EP), Group Practice Reporting Option (GPRO), Accountable Care Organizations (ACO), Eligible Hospitals (EH), Critical Access Hospitals (CAH), and Data Submission Vendors (DSV) to submit QRDA-I data for consumption by CMS systems including the Physician Quality Reporting System (PQRS) and Hospital Quality Reporting (HQR).

Each QRDA Category I report contains quality data for one patient for one or more quality measures, where the data elements in the report are defined by the particular measure(s) being reported on. A QRDA Category I report contains raw applicable patient data. When pooled and analyzed, each report contributes the quality data necessary to calculate population measure metrics.

### 3.2 How to Read This QRDA-I Guide

CMS will process Clinical Quality Measure (CQM) QRDA-I documents originating from EHR systems. Submitted QRDA-I documents for EHR Incentive Program 2015 must meet the conformance statements specified in this guide in addition to the conformance statements specified in the *QRDA-I Implementation Guide*. Only documents that are valid against the Clinical Document Architecture (CDA) Release 2 schema enhanced to support the `sdtc` namespace (`CDA_SDTC.xsd`) will be accepted for processing. Documents that are invalid against this rule will be rejected.

This guide is based on following rules:

1. The *QRDA-I Implementation Guide* provides information about QRDA data elements with conformance numbers and constraints. Some of these existing conformance restrictions have been modified in accordance with CMS system requirements. The "CMS\_" prefix (e.g., `CMS_0001`) indicates the new conformance statements including those existing conformance statements that are further constrained in this guide.

2. The original **SHALL/SHOULD/MAY** keywords along with conformance numbers from the *QRDA-I Implementation Guide* for relevant data elements and attributes have been included in this guide for ease of reference. For brevity, the hierarchy of enclosing elements has not been shown.

## 4. QRDA Category I Requirements

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### 4.1 QRDA Category I Reporting

A QRDA-I document should be submitted for each patient who meets the Initial Patient Population criteria of an eCQM. The QRDA-I base standard allows either one or multiple measures to be reported in a QRDA-I document. For group practice reporting, CMS requires only one QRDA-I report to be submitted per patient aggregated for the group's Tax Identification Number (TIN) for a reporting period. For individual provider reporting, there should be one QRDA-I report per patient for the eligible professional's unique National Provider Identification (NPI) and Tax Identification Number (TIN) combination. For Hospital Quality Reporting, there should be one QRDA-I report per patient for the facility CMS Certification Number (CCN).

### 4.2 Succession Management

This section describes the management of successive replacement documents for QRDA-I reports. (For example, a submitter notices an error in an earlier submission and wants to replace it with a corrected version.) The document that replaces a previous document will have a replacement relationship and will have a new unique QRDA-I `document/id`. The `document/id` of the previous QRDA-I will be referenced in the current document's `/ClinicalDocument/relatedDocument/parentDocument/id`.

Currently, references to the `'id'` of a `parentDocument` are not consistently used. A more reliable means of determining the current version of a QRDA-I document is used for different CMS programs by the receiving system at CMS.

#### 4.2.1 Final Action Processing used in QRDA-I Report Succession Management for PQRS

For the PQRS program, managing replacement documents is sometimes referred to as Final Action Processing (FAP). For group practice reporting, the FAP rules include the combination of the CMS program name, the TIN, the EHR Patient ID, and the submission timestamp. For individual provider reporting, the FAP rules include the combination of the CMS program name, the TIN, the NPI number, the EHR Patient ID, and the submission timestamp.

#### 4.2.2 QRDA-I Report Succession Management for Pioneer ACO

For the Pioneer ACO program, the combination of the last submission timestamp, Patient's Medicare HIC Number, the NPI, and the TIN is used for determining the current version of a QRDA-I document that will be used by the receiving system at CMS.

#### 4.2.3 QRDA-I Report Document Succession Management for HQR

For hospital quality reporting, the most recently submitted and accepted QRDA-I file that matches on the combination of CMS Certification Number (CCN), the EHR Patient ID,

admission date, discharge date, and eCQM version specific identifier will be used by the receiving system at CMS.

#### 4.2.4 Program Identifiers used in Succession Management

The CMS program name requirement for QRDA-I submission is specified in [5.1.5 informationRecipient](#). Each QRDA-I report **must** contain only one CMS program name, which shall be selected from the [QRDA-I CMS Program Name value set \(2.16.840.1.113883.3.249.14.103\)](#).

### 4.3 Value Sets

There are some cases where the value sets specified in electronic Clinical Quality Measures (eCQMs) contradict the value sets specified in the QRDA-I standard. In these cases, the value sets that are specified in eCQMs take precedence. For example, the Tobacco Use (2.16.840.1.113883.10.20.22.4.85) QRDA-I template requires "Tobacco Use (2.16.840.1.113883.11.20.9.41)" value set, but an eCQM criterion uses "Tobacco User Grouping Value Set (2.16.840.1.113883.3.526.3.1170)", the "Tobacco User Grouping Value Set (2.16.840.1.113883.3.526.3.1170)" shall take precedence over the "Tobacco Use (2.16.840.1.113883.11.20.9.41)" value set in constructing a QRDA-I document. This precedence rule also applies to cases where a value set specified in an eCQM is a subset of the value set that is specified in the QRDA-I standard.

### 4.4 Time Zone

Time comparisons or elapsed time calculations are frequently involved as part of determining measure population outcomes. The use of Coordinated Universal Time (UTC) time zone offsets is recommended whenever precision is specified to hour, minute, or second, however inclusion of time zone offsets is not required for successful QRDA-I submissions to CMS. Due to the calculation process, when reporting data elements that use the *effectiveTime* or *time* elements, especially those directly utilized in measure calculations or outcomes, consistency in the usage of UTC time zone offsets is critical. To ensure the highest accuracy in measure outcomes, if UTC time zone offsets are used in any template within a QRDA-I document, it is best that offsets be used throughout the file, otherwise it is best to not utilize offsets at all.

**Figure 4: Time Zone Example**

```
<encounter>
  <text>Encounter Performed: Hospital Measures-Encounter
  Inpatient</text>
  ...
  <effectiveTime>
    <!-- Attribute: admission datetime -->
    <low value="20140325090000+0500"/>
    <!-- Attribute: discharge datetime -->
    <high value="20140329103000+0500"/>
  </effectiveTime>
  ...
</encounter>
```

## 5. QRDA Category I Validation

### 5.1 Document-Level Template: QRDA Category I Report - CMS EP & HQR

This section defines the document-level templates in a QRDA-I document. All of the templates in the *QRDA-I Implementation Guide* are Clinical Document Architecture (CDA) templates.

#### 5.1.1 General Header

This template describes header constraints that apply to the CMS Quality Reporting Document Architecture (QRDA) Category I document.

**Table 1: General Header Constraints Overview**

Parameter Name: XPath	Attribute/Element	Card.	Verb	CONF#	Fixed Value
<b>Clinical Document Template Id:</b> /ClinicalDocument/templateId/	@root	1..1	SHALL	CMS_0001 CMS_0002	2.16.840.1.113 883.10.20.24.1. 3
<b>Globally Unique Identifier (GUID):</b> /ClinicalDocument/id/	@root	1..1	SHALL	5363 9991	n/a
<b>Version Number:</b> /ClinicalDocument/	version Number	0..1	MAY	5264 6387	n/a
<b>Document Created Date:</b> /ClinicalDocument/ effectiveTime/	@value	1..1	SHALL	5256 16865	n/a
<b>Language Code:</b> /ClinicalDocument/ languageCode/	@code	1..1	SHALL	CMS_0010	en
<b>CMS EHR Certification ID:</b> /ClinicalDocument/participant/ associatedEntity/id [@root='2.16.840.1.113883.3. 2074.1']/	@extension	0..1	MAY	CMS_0003 CMS_0004 CMS_0005 CMS_0006	n/a

1. Conforms to QDM-Based QRDA template (2.16.840.1.113883.10.20.24.1.2).
2. **SHALL** contain exactly one [1..1] `templateId` (CONF:CMS\_0001) such that it
  - a. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.24.1.3"` (CONF:CMS\_0002).
3. **SHALL** contain exactly one [1..1] `id` (CONF:5363).
  - a. This `id` **SHALL** be a globally unique identifier for the document (CONF:9991).
4. **MAY** contain zero or one [0..1] `versionNumber` (CONF:5264).
  - a. If `versionNumber` is present `setId` **SHALL** be present (CONF:6387).
5. **SHALL** contain exactly one [1..1] `effectiveTime` (CONF:5256).
  - a. The content **SHALL** be a conformant US Realm Date and Time (DTM.US.FIELDDED) (2.16.840.1.113883.10.20.22.5.4) (CONF:16865).

6. This languageCode **SHALL** contain exactly one [1..1] @code="en" English (CodeSystem: Language 2.16.840.1.113883.6.121) (CMS\_0010).
7. **MAY** contain zero or more [0..\*] participant (CONF:CMS\_0003) such that it
  - a. **SHALL** contain exactly one [1..1] associatedEntity (CONF:CMS\_0004)
  - b. This associatedEntity **MAY** contain zero or one [0..1] id (CONF:CMS\_0005) such that it
    - i. **SHALL** contain exactly one [1..1] @root='2.16.840.1.113883.3.2074.1' CMS EHR Certification Number (formerly known as Office of the National Coordinator Certification Number) and the value of @extension is the Certification Number (CONF: CMS\_0006).

**Figure 5: General Header Example**

```

<realmCode code="US"/>
<typeId root="2.16.840.1.113883.1.3"
  extension="POCD_HD000040"/>
<templateId root="2.16.840.1.113883.10.20.22.1.1"/>
<templateId root="2.16.840.1.113883.10.20.24.1.1"/>
<templateId root="2.16.840.1.113883.10.20.24.1.2"/>
<templateId root="2.16.840.1.113883.10.20.24.1.3"/>
<id root="d651b289-c487-4436-95d2-4c816e50b447"/>
<code code="55182-0"
  codeSystem="2.16.840.1.113883.6.1"
  codeSystemName="LOINC"
  displayName="Quality Measure Report"/>
<title>Good Health QRDA-I Report</title>
<effectiveTime value="20050329171504+0500"/>
<confidentialityCode code="N"
  codeSystem="2.16.840.1.113883.5.25"
  codeSystemName="HL7Confidentiality"/>
<languageCode code="en"
  displayName="English"
  codeSystem="2.16.840.1.113883.1.11.11526"
  codeSystemName="Internet Society Language"/>
    
```

### 5.1.2 recordTarget

The recordTarget records the patient whose health information is described by the clinical document; it must contain at least one patientRole element.

**Table 2: recordTarget Constraints Overview**

Parameter Name: XPath	Attribute/Element	Card.	Verb	CONF#	Fixed Value
<b>Medicare HIC Number:</b> /ClinicalDocument/recordTarget/patientRole/	id [@root='2.16.840.1.113883.4.572']	0..1	SHOULD	16858	n/a
<b>EHR Patient ID Root:</b> /ClinicalDocument/recordTarget/patientRole/id/	@root	1..1	SHALL	CMS_0007	n/a

Parameter Name: XPath	Attribute/Element	Card.	Verb	CONF#	Fixed Value
<b>EHR Patient ID Extension:</b> /ClinicalDocument/recordTarget/patientRole/id/	@extension	1..1	SHALL	CMS_0007	n/a
<b>City:</b> /ClinicalDocument/recordTarget/patientRole/addr/	city	1..1	SHALL	7292 10412	n/a
<b>State:</b> /ClinicalDocument/recordTarget/patientRole/addr/	state	0..1	SHOULD	7293 10024	2.16.840.1.1138 83.3.88.12.80.1 (State Value Set)
<b>Patient Postal Code:</b> /ClinicalDocument/recordTarget/patientRole/addr/	postalCode	0..1	SHOULD	5271 CMS_0008 10025	n/a
<b>Country:</b> /ClinicalDocument/recordTarget/patientRole/addr/	country	0..1	SHOULD	CMS_0009	n/a
<b>Address:</b> /ClinicalDocument/recordTarget/patientRole/addr/	street Address Line	1..4	SHALL	5271 10412 7291	n/a
<b>First Name:</b> /ClinicalDocument/recordTarget/patientRole/patient/name/	given	1..*	SHALL	5283 5284 10411 7157	n/a
<b>Last Name:</b> /ClinicalDocument/recordTarget/patientRole/patient/name/	family	1..1	SHALL	5284 10411 7159	n/a
<b>Gender:</b> /ClinicalDocument/recordTarget/patientRole/patient/	administrative GenderCode	1..1	SHALL	CMS_0011	2.16.840.1.1137 62.1.4.1 (ONC Administrative Sex Value Set) or 2.16.840.1.1138 83.1.11.1 (Administrative Gender Value Set)

Parameter Name: XPath	Attribute/Element	Card.	Verb	CONF#	Fixed Value
<b>Birth Date:</b> /ClinicalDocument/recordTarget/patientRole/patient/birthTime/	@value	1..1	SHALL	5298 CMS_0012	n/a
<b>Race:</b> /ClinicalDocument/recordTarget/patientRole/patient/	raceCode	1..1	SHALL	CMS_0013	2.16.840.1.1142 22.4.11.836 (Race Value Set)
<b>Race (if multiple race):</b> /ClinicalDocument/recordTarget/patientRole/patient/	sdtc:raceCode	0..*	MAY	CMS_0014	2.16.840.1.1142 22.4.11.836 (Race Value Set)
<b>Ethnicity:</b> /ClinicalDocument/recordTarget/patientRole/patient/	ethnicGroupCode	1..1	SHALL	CMS_0015	2.16.840.1.1142 22.4.11.837 (Ethnicity Value Set)

1. **SHALL** contain exactly one [1..1] **recordTarget** (CONF:12913).
  - a. This **recordTarget** **SHALL** contain exactly one [1..1] **patientRole** (CONF:16856).
    - i. This **patientRole** **SHOULD** contain zero or one [0..1] **id** (CONF:16857) such that it
      1. **SHALL** contain exactly one [1..1] **@root='2.16.840.1.113883.4.572'** Medicare HIC number<sup>3</sup> **Error! Hyperlink reference not valid.**(CONF:16858)
    - ii. This **patientRole** **SHALL** contain exactly one [1..1] **id** such that it
      1. **SHALL** contain exactly one [1..1] Patient Identifier Number<sup>4</sup> (CONF:CMS\_0007)
    - iii. This **patientRole** **SHALL** contain at least one [1..\*] **addr** (CONF:5271).
      1. The content of **addr** **SHALL** be a conformant US Realm Address (AD.US.FIELDDED) (2.16.840.1.113883.10.20.22.5.2) (CONF:10412).
        - a. The content of **addr** **SHALL** contain exactly one [1..1] **city** (CONF:7292).
        - b. **SHOULD** contain zero or one [0..1] **state** (ValueSet: StateValueSet 2.16.840.1.113883.3.88.12.80.1 **DYNAMIC**) (CONF:7293).
          - i. **State** **SHALL** be provided if the country is US. If country is not specified, it is assumed to be the US. If country is something other than US, the state **MAY** be present but **MAY** be bound to different vocabularies (CONF:10024).
        - c. **SHOULD** contain zero or one [0..1] **postalCode** (CONF:CMS\_0008).

<sup>3</sup> See Appendix 10.2 for Medicare HIC number validation rule.

<sup>4</sup> A generic name "Patient Identifier Number" is used in this guide in lieu of "Medical Record Number".

- i. PostalCode **SHALL** be provided if the country is US. If country is not specified, it is assumed to be the US. If country is something other than US, the postalCode **MAY** be present but **MAY** be bound to different vocabularies (CONF:10025).
    - d. **SHOULD** contain zero or one [0..1] country (CONF:CMS\_0009).
    - e. contain at least one and not more than 4 streetAddressLine (CONF:7291).
  - iv. This patientRole **SHALL** contain exactly one [1..1] patient (CONF:5283).
    - 1. This patient **SHALL** contain exactly one [1..1] name (CONF:5284).
      - a. The content of name **SHALL** be a conformant US Realm Patient Name (PTN.US.FIELDDED) (2.16.840.1.113883.10.20.22.5.1) (CONF:10411).
        - i. **SHALL** contain at least one [1..\*] given (CONF:7157).
        - ii. **SHALL** contain exactly one [1..1] family (CONF:7159).
    - 2. This patient **SHALL** contain exactly one [1..1] administrativeGenderCode, which **SHALL** be selected from either ValueSet `ONC Administrative Sex 2.16.840.1.113762.1.4.1` or ValueSet `Administrative Gender (HL7 V3) 2.16.840.1.113883.1.11.1` **DYNAMIC** (CONF:CMS\_0011).
    - 3. This patient **SHALL** contain exactly one [1..1] birthTime (CONF:5298).
      - a. **SHALL** be precise to day (CONF:CMS\_0012).
    - 4. This patient **SHALL** contain exactly one [1..1] raceCode, which **SHALL** be selected from ValueSet `Race 2.16.840.1.114222.4.11.836` **DYNAMIC** (CONF:CMS\_0013).
 

Note: Use nullFlavor="ASKU" when the patient declined to specify his/her race. Use nullFlavor="UNK" when the patient's race is unknown.
    - 5. This patient **MAY** contain zero or more [0..\*] sdtc:raceCode, where the @code **SHALL** be selected from ValueSet `2.16.840.1.114222.4.11.836` **DYNAMIC** (CONF:CMS\_0014).
    - 6. This patient **SHALL** contain exactly one [1..1] ethnicGroupCode, which **SHALL** be selected from ValueSet `Ethnicity Value 2.16.840.1.114222.4.11.837` **DYNAMIC** (CONF:CMS\_0015).
 

Note: Use nullFlavor="ASKU" when the patient declined to specify his/her ethnicity. Use nullFlavor="UNK" when the patient's ethnicity is unknown.

**Figure 6: recordTarget Example**

```

<recordTarget>
  <patientRole>
    <id extension="321654987A" root="2.16.840.1.113883.4.572"/>
    <id extension="022354" root="2.16.840.1.113883.123.123.1"/>
    <addr use="HP">
      <streetAddressLine>101 North Pole Lane</streetAddressLine>
      <city>Ames</city>
      <state>IA</state>
      <postalCode>50014</postalCode>
      <country>US</country>
    </addr>
    <telecom use="WP" value="tel:+1-781-271-3000"/>
    <patient>
      <name>
        <given>Jane</given>
        <family>Doe</family>
      </name>
      <administrativeGenderCode code="F"
        codeSystem="2.16.840.1.113883.18.2"/>
      <birthTime value="19460102"/>
      <raceCode code="2106-3"
        codeSystem="2.16.840.1.113883.6.238"/>
      <ethnicGroupCode code="2186-5"
        codeSystem="2.16.840.1.113883.6.238"/>
    </patient>
  </patientRole>
</recordTarget>

```

### 5.1.3 custodian

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

**Table 3: custodian Constraints Overview**

Parameter Name: XPath	Attribute/Element	Card.	Verb	CONF#	Fixed Value
<b>CMS Certification Number (CCN) Root: (Required ONLY for HQR)</b> /ClinicalDocument[templateId/@root='2.16.840.1.113883.10.20.24.1.3']/custodian/assignedCustodian/representedCustodianOrganization/	id [@root='2.16.840.1.113883.4.336']	1..1	SHALL	12914 12915 12916 12917 CMS_0016 26960	n/a
<b>CMS Certification Number (CCN) Extension: (Required ONLY for HQR)</b> /ClinicalDocument[templateId/@root='2.16.840.1.113883.10.20.24.1.3']/custodian/assignedCustodian/representedCustodianOrganization/id[@root='2.16.840.1.113883.4.336']	extension	1..1	SHALL	12914 12915 12916 12917 CMS_0016 26959	n/a

1. **SHALL** contain exactly one [1..1] **custodian** (CONF:12914).
  - a. This custodian **SHALL** contain exactly one [1..1] **assignedCustodian** (CONF:12915).
    - i. This assignedCustodian **SHALL** contain exactly one [1..1] **representedCustodianOrganization** (CONF:12916).
      1. This assignedCustodian **SHALL** represent the organization that owns and reports the data (CONF:12917).

This representedCustodianOrganization id/@root= '2.16.840.1.113883.4.336' coupled with the id/@extension represents the organization's Facility CMS Certification Number (CCN).

CCN is required for HQR only.

2. This representedCustodianOrganization **SHALL** contain exactly one [1..1] **id** (CONF:CMS\_0016) such that it
  - i. **SHALL** contain exactly one [1..1] **@root= '2.16.840.1.113883.4.336'** CMS Certification Number (CONF:26960). **SHALL** contain exactly one [1..1] **@extension** (CONF:26959).<sup>5</sup>  
 Note: nullFlavor is not allowed for CCN.

**Figure 7: CCN as custodian Example**

```

<!-- This is an example for QRDA-I test submission to HQR. -->
<custodian>
  <assignedCustodian>
    <representedCustodianOrganization>
      <!-- extension attribute contains the submitter's CCN -->
      <id root="2.16.840.1.113883.4.336" extension="800890"/>
      <name>Good Health Hospital</name>
      <telecom value="tel:(555)555-1212" use="WP"/>
      <addr use="WP">
        <streetAddressLine>17 Daws Rd.</streetAddressLine>
        <city>Blue Bell</city>
        <state>MA</state>
        <postalCode>02368</postalCode>
        <country>US</country>
      </addr>
    </representedCustodianOrganization>
  </assignedCustodian>
</custodian>

```

### 5.1.4 documentationOf/serviceEvent

A serviceEvent represents the main act, such as a colonoscopy or a cardiac stress study, being documented.

<sup>5</sup> CMS Certification Number (CCN) is six characters in length. A fixed CCN value 800890 shall be used for HQR test submission when no hospital is associated with a submitted QRDA document.

**Table 4: documentationOf/serviceEvent Constraints Overview**

Parameter Name: XPath	Attribute/Element	Card.	Verb	CONF#	Fixed Value
<b>National Provider Identification (NPI) Number:</b> /ClinicalDocument[templateId/@root='2.16.840.1.113883.10.20.24.1.3']/documentationOf/serviceEvent[@classCode="PCPR"]/performer[@typeCode="PRF"]/assignedEntity/	id [@root='2.16.840.1.113883.4.6']	1..1	SHALL	CMS_0017 16580 16581 CMS_0018 16583 16584 16586 16588	n/a
<b>Provider Given Name:</b> /ClinicalDocument[templateId/@root='2.16.840.1.113883.10.20.24.1.3']/documentationOf/serviceEvent[@classCode="PCPR"]/performer[@typeCode="PRF"]/assignedEntity/assignedPerson/name/	given	0..1	MAY	CMS_0019 CMS_0020	n/a
<b>Provider Family Name:</b> /ClinicalDocument[templateId/@root='2.16.840.1.113883.10.20.24.1.3']/documentationOf/serviceEvent[@classCode="PCPR"]/performer[@typeCode="PRF"]/assignedEntity/assignedPerson/name/	family	0..1	MAY	CMS_0019 CMS_0020	n/a
<b>Tax Identification Number (TIN):</b> /ClinicalDocument[templateId/@root='2.16.840.1.113883.10.20.24.1.3']/documentationOf/serviceEvent[@classCode="PCPR"]/performer[@typeCode="PRF"]/assignedEntity/representedOrganization/	id [@root='2.16.840.1.113883.4.2']	1..1	SHALL	16591 CMS_0021 16593	n/a
<b>Clinic Name:</b> /ClinicalDocument[templateId/@root='2.16.840.1.113883.10.20.24.1.3']/documentationOf/serviceEvent[@classCode="PCPR"]/performer[@typeCode="PRF"]/assignedEntity/representedOrganization/	name	0..1	MAY	CMS_0022	n/a

1. **SHALL** contain exactly one [1..1] **documentationOf** (CONF:CMS\_0017) such that it
  - a. **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:16580).
    - i. This **serviceEvent** **SHALL** contain exactly one [1..1] **@classCode="PCPR"** Care Provision (CONF:16581).
    - ii. This **serviceEvent** **SHALL** contain at least one [1..\*] **performer** (CONF:16583).

1. Such performers **SHALL** contain exactly one [1..1] `@typeCode="PRF" Performer (CONF:16584)`.
2. Such performers **SHALL** contain exactly one [1..1] `assignedEntity (CONF:16586)`.

This 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).

For the Eligible Professional (EP) programs, NPI is required except for the Group Practice Reporting Option (GPRO). For GPRO, id/@root='2.16.840.1.113883.4.6' is coupled with @nullFlavor="NA", and @extension SHALL be omitted.

For the Hospital Quality Reporting (HQR), NPI is optional and MAY be submitted. If no NPI is submitted for HQR, id/@root='2.16.840.1.113883.4.6' is coupled with @nullFlavor="NA", and @extension SHALL be omitted.

3. This assignedEntity **SHALL** contain exactly one [1..1] `id (CONF:CMS_0018)` such that it
  - a. **SHALL** contain exactly one [1..1] `@root='2.16.840.1.113883.4.6' National Provider ID (CONF:16588)`.
4. This assignedEntity **MAY** contain zero or one [0..1] `assignedPerson (CONF:CMS_0019)`
  - a. This assignedPerson **MAY** contain zero or one [0..1] `name (CONF:CMS_0020)`

This representedOrganization id/@root='2.16.840.1.113883.4.2' coupled with the id/@extension represents the organization's Tax Identification Number (TIN).

For the EP programs, TIN is required.

For the HQR, TIN is optional and SHOULD be submitted. If no TIN is submitted for HQR, id/@root='2.16.840.1.113883.4.2' is coupled with @nullFlavor="NA", and @extension SHALL be omitted.

5. This assignedEntity **SHALL** contain exactly one [1..1] `representedOrganization (CONF:16591)`.
  - a. This representedOrganization **SHALL** contain exactly one [1..1] `id (CONF:CMS_0021)` such that it
    - i. **SHALL** contain exactly one [1..1] `@root='2.16.840.1.113883.4.2' Tax ID Number (CONF:16593)`.
  - b. This representedOrganization **MAY** contain zero or one [0..1] `name (CONF:CMS_0022)`

**Figure 8: documentationOf/serviceEvent Example for EP Individual Provider**

```

<!-- Example for EP individual provider reporting -->
<documentationOf>
  <serviceEvent classCode="PCPR">
    <effectiveTime>
      <low value="20130401"/>
      <high value="20131210"/>
    </effectiveTime>
    <performer typeCode="PRF">
      <assignedEntity>
<!--This is the provider's NPI -->
        <id root="2.16.840.1.113883.4.6"
          extension="1234567890" />
        <telecom value="mailto:npiUser@aClinic.com"/>
        <assignedPerson>
          <name>
            <given>John</given>
            <family>Smith</family>
          </name>
        </assignedPerson>
        <representedOrganization>
<!--This is the organization's TIN, which is required for EP -->
          <id root="2.16.840.1.113883.4.2"
            extension="987654321"/>
          <name>Good Health Clinic</name>
          <telecom value="mailto:tinUser@aClinic.com"/>
          <addr>
            <streetAddressLine>1601 NW 114th street
            </streetAddressLine>
            <streetAddressLine>Suite 151</streetAddressLine>
            <city>Clive</city>
            <state>IA</state>
            <postalCode>50325</postalCode>
            <country>US</country>
          </addr>
        </representedOrganization>
        </assignedEntity>
      </performer>
    </serviceEvent>
  </documentationOf>

```

**Figure 9: documentationOf/serviceEvent Example for EP Group Practice**

```

<!-- Example for EP Group Practice Reporting Option (GPRO) -->
<documentationOf>
  <serviceEvent classCode="PCPR">
    ...
    <performer typeCode="PRF">
      <assignedEntity>
<!-- NPI is not applicable for GPRO -->
        <id root="2.16.840.1.113883.4.6" nullFlavor="NA"/>
        <representedOrganization>
<!--This is the organization's TIN, which is required for EP -->
          <id root="2.16.840.1.113883.4.2"
            extension="12-3456789"/>
          ...
        </representedOrganization>
        </assignedEntity>
      </performer>
    </serviceEvent>
  </documentationOf>

```

**Figure 10: documentationOf/serviceEvent Example for HQR**

```

<!-- Example for HQR -->
<documentationOf>
  <serviceEvent classCode="PCPR">
    ...
    <performer typeCode="PRF">
      <assignedEntity>
<!-- If no NPI for a provider is submitted, nullFlavor must be
used to indicate NPI is not applicable -->
        <id root="2.16.840.1.113883.4.6" nullFlavor="NA"/>
        <representedOrganization>
<!-- If no TIN for a hospital is submitted, nullFlavor must be
used to indicate TIN is not applicable -->
          <id root="2.16.840.1.113883.4.2"
            nullFlavor="NA"/>
          ...
        </representedOrganization>
      </assignedEntity>
    </performer>
  </serviceEvent>
</documentationOf>

```

### 5.1.5 informationRecipient

The `informationRecipient` element records the intended recipient of the information at the time the document is created.

**Table 5: informationRecipient Constraints Overview**

Parameter Name: XPath	Attribute/Element	Card.	Verb	CONF#	Fixed Value
<b>CMS Program Name:</b> /ClinicalDocument/informationRecipient/intendedRecipient/id[root='2.16.840.1.113883.3.249.7']	@extension	1..1	SHALL	CMS_0023 16704 CMS_0024 CMS_0025 CMS_0026	n/a

1. **SHALL** contain exactly one [1..1] `informationRecipient` (CONF:CMS\_0023).
  - a. The `informationRecipient`, if present, **SHALL** contain exactly one [1..1] `intendedRecipient` (CONF:16704).
  - b. This `intendedRecipient` **SHALL** contain exactly one [1..1] `id` (CONF:CMS\_0024)
    - i. It **SHALL** contain exactly one [1..1] `@root='2.16.840.1.113883.3.249.7'` (CONF:CMS\_0025)
    - ii. It **SHALL** contain exactly one [1..1] `@extension`, the value of `@extension` is CMS Program Name, which **SHALL** be selected from ValueSet [QRDA-I CMS Program Name](#) 2.16.840.1.113883.3.249.14.103 **STATIC** (CONF:CMS\_0026).

**Table 6: QRDA-I CMS Program Name**

Value Set: QRDA-I CMS Program Name 2.16.840.1.113883.3.249.14.103 Specifies the CMS Program for QRDA-I report submissions.			
Code	Code System	Code System OID	Print Name
PQRS_MU_INDIVIDUAL	CMS Program	2.16.840.1.113883.3.249.7	PQRS Meaningful Use Individual
PQRS_MU_GROUP	CMS Program	2.16.840.1.113883.3.249.7	PQRS Meaningful Use Group
PIONEER_ACO	CMS Program	2.16.840.1.113883.3.249.7	Pioneer ACO
HQR_EHR	CMS Program	2.16.840.1.113883.3.249.7	Hospital Quality Reporting for the EHR Incentive Program
HQR_IQR	CMS Program	2.16.840.1.113883.3.249.7	Hospital Quality Reporting for the Inpatient Quality Reporting Program
HQR_EHR_IQR	CMS Program	2.16.840.1.113883.3.249.7	Hospital Quality Reporting for the EHR Incentive Program and the IQR Program

**Figure 11: informationRecipient Example**

```

<!-- This example shows the extension attribute with a value of
"PQRS_MU_INDIVIDUAL", which indicates that this QRDA-I report is
submitted to the PQRS Meaningful Use Individual program -->
<informationRecipient>
  <intendedRecipient>
    <id root="2.16.840.1.113883.3.249.7"
      extension="PQRS_MU_INDIVIDUAL"/>
  </intendedRecipient>
</informationRecipient>
    
```

## 5.2 Section-Level Templates

### 5.2.1 Measure Section

This section contains information about the eMeasure or eMeasures being reported. (An eMeasure is called an "eCQM" in the Meaningful Use program.) It must contain entries with the identifiers of all the eMeasures so that corresponding QRDA Quality Data Model (QDM) data element entry templates to be instantiated in the Patient Data Section are identified. Each eMeasure for which QRDA QDM data elements are being sent must reference eMeasure version specific identifier (*QualityMeasureDocument/id*).

**Table 7: Measure Section Constraints Overview**

Parameter Name: XPath	Attribute/Element	Card.	Verb	CONF#	Fixed Value
<b>Measure Version specific identifier:</b> //section[templateId/@root='2.16.840.1.113883.10.20.24.2.3']/entry/organizer[templateId/@root='2.16.840.1.113883.10.20.24.3.97']/reference[@typeCode="REFR"]/externalDocument[@classCode="DOC"][@moodCode="EVN"]/id/	@root	1..1	SHALL	12808	n/a
				12809	
				12810	
				12811	
				12812	
				12813	

1. **SHALL** contain exactly one [1..1] **reference** (CONF:12808) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** refers to (CodeSystem: HL7ActRelationshipType 2.16.840.1.113883.5.1002 **STATIC**) (CONF:12809).
  - b. **SHALL** contain exactly one [1..1] **externalDocument="DOC"** Document (CodeSystem: HL7ActClass 2.16.840.1.113883.5.6) (CONF:12810).
    - i. This externalDocument **SHALL** contain exactly one [1..1] **id** (CONF:12811) such that it
      1. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.4.738"** (CONF:12812).  
 Note: This OID indicates that the @extension contains the version specific identifier for the eMeasure.
      2. **SHALL** contain exactly one [1..1] **@extension** (CONF:12813).  
 Note: This @extension SHALL equal the version specific identifier for eMeasure (i.e. QualityMeasureDocument/id)

**Figure 12: Measure Section Example**

```

<section>
  <templateId root="2.16.840.1.113883.10.20.24.2.2"/>
  <templateId root="2.16.840.1.113883.10.20.24.2.3"/>
  <code code="55186-1" codeSystem="2.16.840.1.113883.6.1"/>
  <title>Measure Section</title>
  <text>...</text>
  <entry>
    <organizer classCode="CLUSTER" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.24.3.98"/>
      <templateId root="2.16.840.1.113883.10.20.24.3.97"/>
      <statusCode code="completed"/>
      <reference typeCode="REFR">
        <externalDocument classCode="DOC" moodCode="EVN">
          <!-- This is the eMeasure version specific identifier -->
          <id root="2.16.840.1.113883.4.738"
              extension="40280381-3d61-56a7-013e-666032b244f7"/>
        </externalDocument>
      </reference>
    </organizer>
  </entry>
</section>
    
```

## 5.2.2 Reporting Parameter Section

The Reporting Parameters Section provides information about the reporting time interval, and may contain other information that provides context for the patient data being reported.

**Table 8: Reporting Parameter Section Constraints Overview**

Parameter Name: XPath	Attribute/Element	Card.	Verb	CONF#	Fixed Value
<b>Reporting Period Effective Start Date:</b> //act[templateId/@root='2.16.840.1.113883.10.20.17.3.8']/effectiveTime/low/	@value	1..1	SHALL	3273 3274 CMS_0027	n/a
<b>Reporting Period Effective End Date:</b> //act[templateId/@root='2.16.840.1.113883.10.20.17.3.8']/effectiveTime/high/	@value	1..1	SHALL	3273 3275 CMS_0028	n/a

1. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:3273).
  - a. This **effectiveTime** **SHALL** contain exactly one [1..1] **low** (CONF:3274).
    - i. **SHALL** be precise to day (CONF:CMS\_27)
  - b. This **effectiveTime** **SHALL** contain exactly one [1..1] **high** (CONF:3275).
    - i. **SHALL** be precise to day (CONF:CMS\_28)

**Figure 13: Reporting Parameter Section Example**

```

<section>
  <templateId root="2.16.840.1.113883.10.20.17.2.1"/>
  <code code="55187-9" codeSystem="2.16.840.1.113883.6.1"/>
  <title>Reporting Parameters</title>
  <text>...</text>
  <entry typeCode="DRIV">
    <act classCode="ACT" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.17.3.8"/>
      <code code="252116004"
        codeSystem="2.16.840.1.113883.6.96"
        displayName="Observation Parameters"/>
      <effectiveTime>
        <low value="20140101"/>
        <high value="20141231"/>
      </effectiveTime>
    </act>
  </entry>
</section>

```

### 5.2.3 Patient Data Section

The Patient Data Section QDM contains entries that conform to the QDM approach to QRDA.

**Table 9: Patient Data Section Constraints Overview**

Parameter Name: XPath	Attribute/Element	Card.	Verb	CONF#	Fixed Value
<b>QDM-based QRDA Entries:</b> //section[templateId/@root='2.16.840.1.113883.10.20.24.2.1']/	entry	1..*	SHALL	CMS_0029 16573	n/a

1. **SHALL** contain at least one [1..\*] **entry** (CONF:CMS\_0029)
  - a. Where the clinical statement codes **SHALL** contain the @sdct:valueSet extension to reference the value set from which the supplied code was drawn (CONF:16573).  
Note: For PQRS program, validation for the generic constraint CONF:16573 is applied at an individual data element constraint level where applicable.

**Figure 14: Patient Data Section Example**

```

<section>
  <templateId root="2.16.840.1.113883.10.20.17.2.4"/>
  <templateId root="2.16.840.1.113883.10.20.24.2.1"/>
  <code code="55188-7"
    codeSystem="2.16.840.1.113883.6.1"
    displayName="Patient Data"/>
  <title>Patient Data</title>
  <text>...</text>
  <entry>
    ...
  </entry>
  ...
</section>
    
```

This guide follows the specifications of entry templates as defined in the base HL7 *QRDA-I Implementation Guide*.

For a QDM data element that is not done (when negationInd="true") with a reason, such as "Medication, Order not done: Medical Reason", an entryRelationship to a Reason (templateId: 2.16.840.1.113883.10.20.24.3.88") with an actRelationship type of "RSON" is required. This is specified in the section 1.11.8 Asserting an Act Did Not Occur with a Reason in the base HL7 *QRDA-I Implementation Guide*.

# PART B — QRDA-III DSTU R1 Supplementary Implementation Guide for Eligible Professional Programs

## 6. Overview

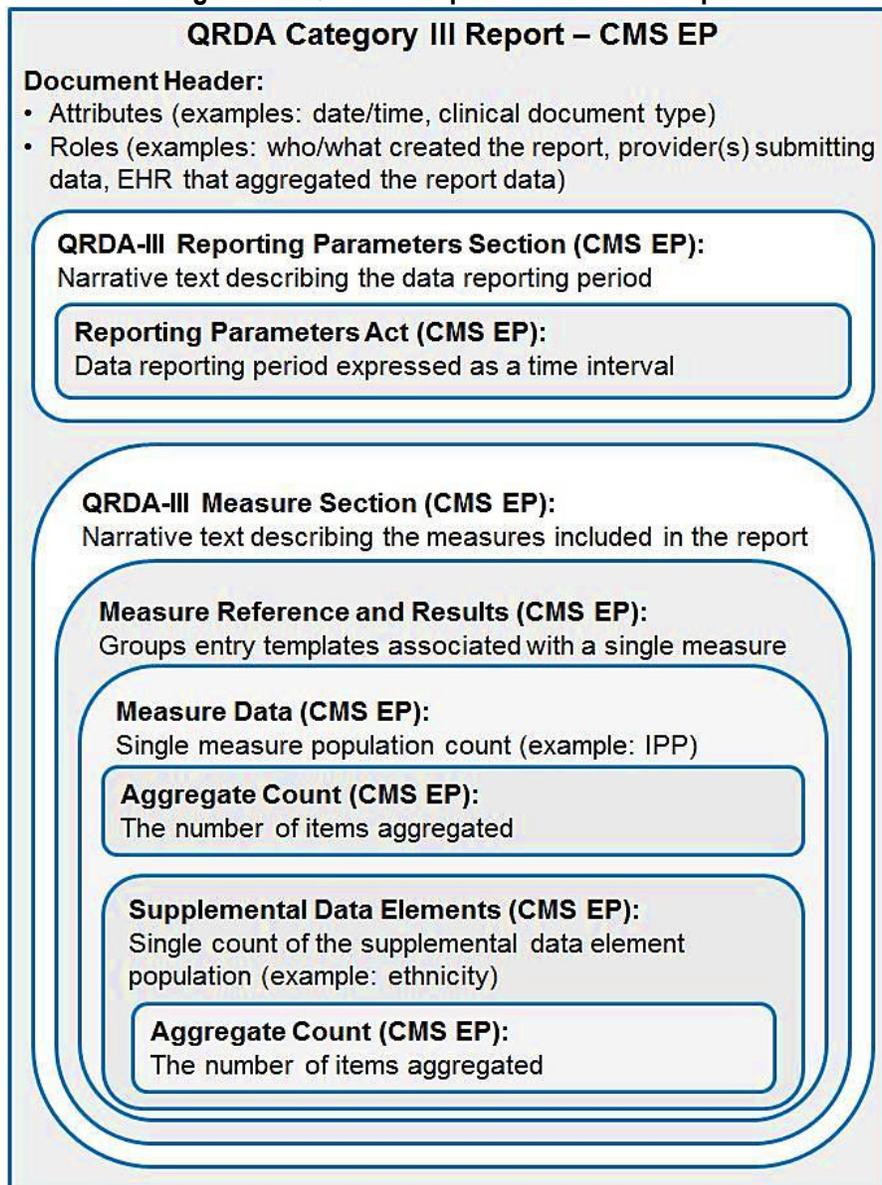
---

### 6.1 Background

Part B of this guide is a CMS Quality Reporting Document Architecture Category III (QRDA-III) supplementary implementation guide to the *HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture, Category III, DSTU Release 1 (US Realm), Draft Standard for Trial Use—November 2012*, and its 2014 errata update (together referred to as the *QRDA-III Implementation Guide* in this guide). Templates defined in this supplementary implementation guide are conformant with the *QRDA-III Implementation Guide*. CMS EP Programs QRDA-III templates address aggregate reporting requirements for:

- Comprehensive Primary Care (CPC) initiative
- Electronic Health Record (EHR) Incentive program (Meaningful Use)
- Physician Quality Reporting System (PQRS)

A QRDA-III report is an aggregate quality report using data collected in patient-level QRDA-I reports. 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 in the HL7 Health Quality Measures Format (HQMF), which standardizes the representation of a health quality measure as an electronic document. The structure of a QRDA-III report is depicted in the following figure.

**Figure 15: QRDA-III Report Structure Example**

## 6.2 How to Read This QRDA-III Guide

This guide includes the formal template definitions and submission criteria for submitting QRDA-III documents to CPC initiative, EHR Incentive Program (Meaningful Use), and PQRS for Eligible Professionals. Some of the conformance statements in the *HL7 CDA Release 2: QRDA Category III (QRDA-III), DSTU Release 1* have been further constrained to meet the specific requirements from these CMS EP programs. This guide shows all parent template definitions from the base *QRDA-III Implementation Guide* together with the CMS specific constraints.

## 7. QRDA Category III Submission Rules

---

CMS will process CQM QRDA-III documents originating from EHR systems. Submitted QRDA-III documents must meet the conformance statements specified in [8–QRDA-III Validation](#) of this implementation guide.

### 7.1 Comprehensive Primary Care (CPC) Initiative Submissions

CPC QRDA-III submissions for the 2015 Measurement Year must contain all data for all measures recorded by a CPC practice site. Each CPC practice site is a single, physical (brick and mortar) location.

For CPC measures, the CQM population is inclusive of all patients seen at the CPC practice site location as follows:

- 1) If the CPC practice site is a solo-practitioner site, the CQM population includes all patients who had one or more visits at the CPC practice site location in the Measurement Year and who meet the initial patient population criteria of the CQM.
- 2) If the CPC practice site includes multiple practitioners, the CQM population must include all patients who had one or more visits at the CPC practice site in the Measurement Year and who meet the initial patient population criteria of the CQM.
- 3) If the CPC practice site is part of a larger group practice that includes non-CPC practitioners, the CQM population of the CPC practice site must include all patients who had one or more visits at the CPC practice site location **only**.
  - a) The aggregate numbers must be a representation of those patients seen at the CPC practice site location only.
    - i) If a patient was seen at both a CPC practice site and a non-participating practice site within the same larger group practice, the aggregate CQM report for the CPC practice site includes this patient if the patient had one or more visits in the Measurement Year at the CPC practice site location and meets the initial patient population criteria for the measure.
    - ii) If a patient is only seen at a non-participating practice site, but the data reside within the larger group practice's certified EHR, the patient is excluded from any CPC practice aggregate CQM report.
  - b) Note that CPC practice sites on a shared EHR system with a non-CPC practice site may count quality criteria that were performed at the non-CPC practice site if the data are contained within the CPC practice site's certified EHR and the patient had one or more visits in the Measurement Year at the CPC practice site location and meets the initial patient population criteria for the measure.
- 4) For CPC reporting, the **same TIN** (Tax Identification Number) has to be reported for all of the National Provider Identification (NPI) numbers listed for the CPC practice site. Therefore each CPC practice site can only report one TIN for CPC. This TIN will be used for the PQRS aligned reporting option if the PQRS waiver is selected by the CPC practice site.
- 5) The measurement period for the CPC program begins on January 1, 2015 and ends on December 31, 2015. Data collected during the measurement period should be submitted from January 1, 2016 through February 28, 2016.
- 6) QRDA–III submissions for the CPC initiative will use the June 2014 versions of EP CQMs.

- 7) As a part of satisfactory reporting criteria, the QRDA-III submission for the CPC initiative must include at least 9 measures from the CPC clinical quality measure set.
  - a) The CPC 2015 program year clinical quality measure set will be posted to the CMS website later this year. It can also be obtained by contacting CPC/Telligen support at [cpcsupport@telligen.org](mailto:cpcsupport@telligen.org) or calling 1-800-381-4724.

## 7.2 EHR Incentive Program (Meaningful Use) Submissions

EHR Incentive Program submissions must contain nine of the 64 EP CQMs outlined for reporting as part of the EHR Incentive Program (Meaningful Use). The nine CQMs selected for submission must cover at least three of the six National Quality Strategy domains. QRDA-III submissions for the EHR Incentive Program will contain June 2014 versions of EP CQMs.

The EHR Incentive Program CQM populations include all patients seen by the EP during the reporting period, which is one full year (January 1, 2015 – December 31, 2015) or a calendar quarter within the calendar year (i.e., January 1, 2015 – March 31, 2015). EPs who are in their first year of participation in the EHR Incentive Program can also use any 90-day period within the calendar year 2015 as the data reporting period. Data collected during the reporting period may then be submitted January 1, 2016 through February 28, 2016. Please note that EPs who are in their first year of participation in the EHR Incentive Program must submit their CQMs via attestation by October 1, 2015 in order to avoid the EHR Incentive Program payment adjustment in the subsequent year.

## 7.3 Physician Quality Reporting System (PQRS) Submissions

PQRS QRDA-III submissions must contain nine of the 64 EP CQMs outlined for reporting as part of the EHR Incentive Program (Meaningful Use). The nine CQMs selected for submission must cover at least three of the six National Quality Strategy domains. QRDA-III submissions for PQRS reporting programs will contain June 2014 versions of EP CQMs.

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

For the PQRS individual EP reporting, CQM populations include all Medicare patients seen by the EP during the reporting period, which is one full year (January 1, 2015 - December 31, 2015). For PQRS GPRO reporting, CQM populations include all unique Medicare patients from all practice sites in the group practice seen by the group during the reporting period (January 1, 2015 - December 31, 2015). Data for both individual EPs and GPROs is then submitted January 1, 2016 through February 2, 2016.

## 7.4 Identifiers

For all CMS EP 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 EP program reporting include:

- National Provider Identifier (NPI)
  - Optional for PQRS GPRO reporting
- Tax Identification Number (TIN)

- For a practice site with a single provider, the TIN is an `organizationID`
- When a provider has more than one TIN, the provider is recorded for each NPI/TIN combination  
Note: The CPC program requires each CPC practice site, use only one TIN and this TIN shall be the **same** for all CPC Practice Site practitioners (NPIs) who are eligible professionals at that CPC practice site ID location. (See [7.1–CPC Initiative Submissions](#) above.)

- Each measure included in the QRDA-III report must reference the Version Specific ID.

## 7.5 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 PQRS program, managing replacement documents is sometimes referred to as Final Action Processing (FAP). The document that replaces a previous document will have a replacement relationship and will have a new unique QRDA-III `document/id`. The `document/id` of the previous QRDA-III will be referenced in the current document's `/ClinicalDocument/relatedDocument/parentDocument/id`.

### 7.5.1 Final Action Processing used in Succession Management

Currently, references to the `'id'` of a `parentDocument` are not consistently used. The PQRS receiving system at CMS uses FAP to reliably determine the current version of a QRDA-III document. There are different sets of FAP rules that apply to the PQRS program and the CPC program respectively.

Please note that the CMS receiving system will not be able to analyze specific elements out of earlier QRDA-III submissions. Therefore submitters should ensure all QRDA-III reports are complete data re-submissions.

### 7.5.2 FAP Rules for PQRS

For group practice reporting (except for the CPC program), the FAP rules include the combination of the CMS program name, the TIN, the eCQM measure version specific identifier, the eCQM reporting stratification identifier when it is applicable, and the submission timestamp. For individual reporting (except for the CPC program), the FAP rules include the combination of the CMS program name, the TIN, the NPI number, the eCQM measure version specific identifier, the eCQM reporting stratification identifier when it is applicable, and the submission timestamp.

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

### 7.5.3 FAP Rules for CPC

For QRDA-III documents that are submitted to the CPC program, the FAP rules include the combination of the CMS program name, the CPC practice site ID, the submission timestamp.

When submitting a replacement QRDA-III report to replace a previously submitted QRDA-III report for the same CPC practice site ID to the CPC program, the new replacement report replaces the previously sent report entirely. For example, if a QRDA-III report contains data for eQMs 1, 2, and 3 was submitted on Monday, a new replacement QRDA-III report for the same CPC practice site ID was resubmitted the next day for eQMs 1, 2, and 4. Only eQMs 1, 2, and 4 contained in the last submission will be used for final processing for that CPC practice site.

#### 7.5.4 Program Identifiers used in Succession Management

The CMS program name requirement for QRDA-III submission is specified in [8.1.4–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. (E.g., If you are submitting a file initially for CPC, find an error and resubmit the file with another CMS program name, MU\_ONLY, the file will only be analyzed for MU\_ONLY.)

## 8. QRDA Category III Validation

### 8.1 Document-Level Template: QRDA Category III Report - CMS EP

[ClinicalDocument: templateId 2.16.840.1.113883.10.20.27.1.2 (open) ]

**Table 10: QRDA Category III Report - CMS EP Contexts**

Contained By	Contains
	<a href="#">QRDA Category III Measure Section (CMS EP)</a> <a href="#">QRDA Category III Reporting Parameters Section (CMS EP)</a>

This template describes constraints that apply to the Quality Reporting Document Architecture (QRDA) Document Category III Report for CMS Eligible Professionals (EP) Programs including the Comprehensive Primary Care (CPC) initiative, EHR Incentive Program (Meaningful Use), and Physician Quality Reporting System (PQRS).

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 template (2.16.840.1.113883.10.20.27.1.1).
  2. **SHALL** contain exactly one [1..1] `realmCode` (CONF:17226).
    - a. This `realmCode` **SHALL** contain exactly one [1..1] `@code="US"` (CONF:17227).
  3. **SHALL** contain exactly one [1..1] `typeId` (CONF:18186).
    - a. This `typeId` **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.1.3"` (CONF:18187).
    - b. This `typeId` **SHALL** contain exactly one [1..1] `@extension="POCD_HD000040"` (CONF:18188).
  4. **SHALL** contain exactly one [1..1] `templateId` (CONF:17208) such that it
    - a. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.27.1.1"` (CONF:17209).  
Note: QRDA Category III Report (QRDA-III)
  5. **SHALL** contain exactly one [1..1] `templateId` (CONF:711280) such that it
    - a. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.27.1.2"` (CONF:711281).
  6. **SHALL** contain exactly one [1..1] `id` (CONF:17236).
    - a. This `id` **SHALL** be a globally unique identifier for the document (CONF:17242).
  7. **SHALL** contain exactly one [1..1] `code` (CodeSystem: LOINC 2.16.840.1.113883.6.1 **STATIC**) (CONF:17210).
    - a. This `code` **SHALL** contain exactly one [1..1] `@code="55184-6"` Quality Reporting Document Architecture Calculated Summary Report (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:19549).
  8. **SHALL** contain exactly one [1..1] `title` (CONF:17211).
  9. **SHALL** contain exactly one [1..1] `effectiveTime` (CONF:17237).

- a. The content **SHALL** be a conformant US Realm Date and Time (DTM.US.FIELDDED) (2.16.840.1.113883.10.20.22.5.4) (CONF:18189).
- 10. **SHALL** contain exactly one [1..1] **confidentialityCode** (CONF:711174).
  - a. This confidentialityCode **SHALL** contain exactly one [1..1] @code="N" Normal (CodeSystem: ConfidentialityCode 2.16.840.1.113883.5.25 **STATIC**) (CONF:711246).
- 11. **SHALL** contain exactly one [1..1] **languageCode** (CONF:711173).
  - a. This languageCode **SHALL** contain exactly one [1..1] @code="en" English (CodeSystem: Language 2.16.840.1.113883.6.121) (CONF:711247).

### 8.1.1 recordTarget

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

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

**Figure 16: recordTarget Example**

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

### 8.1.2 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.

- 13. **SHALL** contain at least one [1..\*] **author** (CONF:18156) such that it
  - 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.
  - a. **SHALL** contain exactly one [1..1] **time** (CONF:18158).
  - b. **SHALL** contain exactly one [1..1] **assignedAuthor** (CONF:18157).
    - i. This assignedAuthor **SHALL** contain exactly one [1..1] **id** (CONF:711240).
    - ii. This assignedAuthor **MAY** contain zero or one [0..1] **assignedPerson** (CONF:18368).
    - iii. This assignedAuthor **MAY** contain zero or one [0..1] **assignedAuthoringDevice** (CONF:18162).

1. The assignedAuthoringDevice, if present, **SHALL** contain exactly one [1..1] **softwareName** (CONF:18262).
- iv. This assignedAuthor **SHALL** contain exactly one [1..1] **representedOrganization** (CONF:18163).
  1. This representedOrganization **SHALL** contain at least one [1..\*] **name** (CONF:18265).
- c. There **SHALL** be exactly one assignedAuthor/assignedPerson or exactly one assignedAuthor/assignedAuthoringDevice (CONF:19667).

**Figure 17: Device author Example**

```
<author>
  <time value="20150311061231-0500"/>
  <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 18: Person author Example**

```
<author>
  <time value="20150312114411-0500"/>
  <assignedAuthor>
    <id root="2.16.840.1.113883.4.6" extension="1111111111"
      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>
```

### 8.1.3 custodian

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

14. **SHALL** contain exactly one [1..1] **custodian** (CONF:17213).
  - a. This custodian **SHALL** contain exactly one [1..1] **assignedCustodian** (CONF:17214).
    - i. This assignedCustodian **SHALL** contain exactly one [1..1] **representedCustodianOrganization** (CONF:17215).
      1. This representedCustodianOrganization **SHALL** contain at least one [1..\*] **id** (CONF:18165).

2. This representedCustodianOrganization **SHOULD** contain zero or one [0..1] **name** (CONF:18166).
- b. This assignedCustodian **SHALL** represent the organization that owns and reports the data (CONF:18246).

**Figure 19: custodian Example**

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

### 8.1.4 informationRecipient

The informationRecipient represents the CMS EP program the report is being submitted to.

15. **SHALL** contain exactly one [1..1] informationRecipient (CONF:711158).
  - a. This informationRecipient **SHALL** contain exactly one [1..1] intendedRecipient (CONF:711159).
    - i. This intendedRecipient **SHALL** contain exactly one [1..1] id (CONF: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: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](#) 2.16.840.1.113883.3.249.14.101 **STATIC** (CONF:711162).

- a. If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="CPC", then ClinicalDocument/participant/@typeCode="LOC" **SHALL** be present (CONF:711248).

**Table 11: 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
CPC	CMS Program	2.16.840.1.113883.3.249.7	CPC
PQRS_MU_INDIVIDUAL	CMS Program	2.16.840.1.113883.3.249.7	PQRS Meaningful Use Individual

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
PQRS_MU_GROUP	CMS Program	2.16.840.1.113883.3.249.7	PQRS Meaningful Use Group
MU_ONLY	CMS Program	2.16.840.1.113883.3.249.7	Meaningful Use Only

**Figure 20: informationRecipient Example**

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

### 8.1.5 legalAuthenticator

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

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

Note: If a Data Submission Vendor (DSV) is used, the DSV is the `legalAuthenticator`.

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

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

1. The `representedOrganization`, if present, **SHALL** contain at least one [1..\*] `id` (CONF:19671).
2. The `representedOrganization`, if present, **SHOULD** contain zero or one [0..1] `name` (CONF:19673).

**Figure 21: 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>

```

### 8.1.6 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 ID.

17. **MAY** contain zero or more [0..\*] **participant** (CONF:18300) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="DEV" device (CodeSystem: HL7ParticipationType 2.16.840.1.113883.5.90 **STATIC**) (CONF:18301).
  - b. **SHALL** contain exactly one [1..1] **associatedEntity** (CONF:18302).
    - i. This associatedEntity **SHALL** contain exactly one [1..1] @classCode="RGPR" Regulated Product (CodeSystem: RoleClass 2.16.840.1.113883.5.110 **STATIC**) (CONF:18303).
    - ii. This associatedEntity **MAY** contain zero or one [0..1] **id** (CONF:18304) such that it

The CMS EHR Certification ID 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 ID (CONF:18305).  
Note: This value specifies that the id is the CMS EHR Certification ID.
- iii. This associatedEntity **SHALL** contain exactly one [1..1] **code** (CONF:18308).
  1. This code **SHALL** contain exactly one [1..1] @code="129465004" medical record, device (CodeSystem: SNOMED CT 2.16.840.1.113883.6.96 **STATIC**) (CONF:18309).

**Figure 22: 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>

```

## 8.1.7 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="CPC"`, then this location participant must be present.

18. **MAY** contain zero or one [0..1] `participant` (CONF:711150) such that it
- a. **SHALL** contain exactly one [1..1] `@typeCode="LOC"` Location (CodeSystem: HL7ParticipationType 2.16.840.1.113883.5.90) (CONF:711151).
  - b. **SHALL** contain exactly one [1..1] `associatedEntity` (CONF:711152).
    - i. This `associatedEntity` **SHALL** contain exactly one [1..1] `@classCode="SDLOC"` Service Delivery Location (CodeSystem: RoleClass 2.16.840.1.113883.5.110) (CONF:711153).
    - ii. This `associatedEntity` **SHALL** contain exactly one [1..1] `id` (CONF:711154).
      1. 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.
      2. 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.
    - iii. This `associatedEntity` **SHALL** contain exactly one [1..1] `code` (CONF:711218).
      1. This `code` **SHALL** contain exactly one [1..1] `@code="394730007"` Healthcare Related Organization (CodeSystem: SNOMED CT 2.16.840.1.113883.6.96) (CONF:711219).
    - iv. This `associatedEntity` **SHALL** contain exactly one [1..1] `addr` (CONF:711157).

**Figure 23: Location participant Example**

```
<participant typeCode="LOC">
  <associatedEntity classCode="SDLOC">
    <id root="2.16.840.1.113883.3.249.5.1" extension="OK666333"
      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>
```

## 8.1.8 documentationOf

The aggregated data contained in a QRDA Category III report was provided by one or more providers. The `documentationOf` service event can contain identifiers for all of the (one or more) providers involved, using the `serviceEvent/performer` elements. A `serviceEvent/performer` element must be present for each performer reporting data to a quality organization.

19. **SHALL** contain exactly one [1..1] `documentationOf` (CONF:711214).
  - a. This `documentationOf` **SHALL** contain exactly one [1..1] `serviceEvent` (CONF: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:18172).
    - ii. This `serviceEvent` **SHALL** contain at least one [1..\*] `performer` (CONF:711220).

Note: All providers seeking credit for CMS program reporting are listed as performers. For CPC reporting, only CPC Practice Site providers are listed as performers.

1. Such performers **SHALL** contain exactly one [1..1] `@typeCode="PRF" Performer (CodeSystem: HL7ParticipationType 2.16.840.1.113883.5.90 STATIC)` (CONF:18174).
2. Such performers **MAY** contain zero or one [0..1] `time` (CONF:18175).
3. Such performers **SHALL** contain exactly one [1..1] `assignedEntity` (CONF:18176).

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

NPI is required except for the Group Practice Reporting Option (GPRO). For GPRO, `id/@root='2.16.840.1.113883.4.6'` is coupled with `@nullFlavor="NA"`, and `@extension` shall be omitted.

- a. This `assignedEntity` **SHALL** contain exactly one [1..1] `id` (CONF:711167) such that it
  - i. **MAY** contain zero or one [0..1] `@nullFlavor="NA"` (CONF:711249).  
Note: `@nullFlavor` is only present for PQRS GPRO reporting.
  - ii. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.4.6" National Provider ID` (CONF:711169).  
Note: This value specifies that the `id` is the provider's National Provider Identifier (NPI).
  - iii. **SHALL** contain exactly one [1..1] `@extension` (CONF:711170).  
Note: This is the provider's NPI, it is only present when this is not PQRS GPRO reporting.
- b. This `assignedEntity` **MAY** contain zero or more [0..\*] `telecom` (CONF:18310).
- c. This `assignedEntity` **SHALL** contain exactly one [1..1] `representedOrganization` (CONF:18180).

- i. This `representedOrganization` **SHALL** contain exactly one [1..1] `id` (CONF:711168) such that it
  1. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.4.2"` Tax ID Number (CONF: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:711172).  
Note: This is the organization's TIN.
- ii. This `representedOrganization` **SHOULD** contain zero or more [0..\*] `name` (CONF:19659).

**Figure 24: documentationOf Example**

```

<documentationOf>
  <serviceEvent classCode="PCPR">
    <!-- Care provision -->
    <effectiveTime>
      <low value="20140101"/>
      <high value="20141231"/>
    </effectiveTime>
    <!-- Multiple performers can be included,
      each with an NPI and TIN -->
    <performer typeCode="PRF">
      <time>
        <low value="20140101"/>
        <high value="20141231"/>
      </time>
      <assignedEntity>
        <!-- Provider NPI -->
        <id root="2.16.840.1.113883.4.6" extension="1111111111"/>
        <representedOrganization>
          <!-- Organization TIN -->
          <id root="2.16.840.1.113883.4.2" extension="123456789"/>
          <name>Good Health Clinic</name>
        </representedOrganization>
      </assignedEntity>
    </performer>
  </serviceEvent>
</documentationOf>

```

## 8.1.9 authorization

If the data is submitted through an intermediary such as a data submission vendor, this `authorization` represents that the eligible professional has given permission to release the report.

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

20. **MAY** contain zero or one [0..1] `authorization` (CONF:18344).
  - a. The `authorization`, if present, **SHALL** contain exactly one [1..1] `consent` (CONF:18360).
    - i. This `consent` **SHALL** contain exactly one [1..1] `id` (CONF:18361).  
Note: This is the identifier of the consent given by the EP.

- ii. This consent **SHALL** contain exactly one [1..1] **code** (CodeSystem: SNOMED CT 2.16.840.1.113883.6.96 **STATIC**) (CONF:18363).
  - 1. This code **SHALL** contain exactly one [1..1] **@code="425691002"** Consent given for electronic record sharing (CodeSystem: SNOMED CT 2.16.840.1.113883.6.96) (CONF:19550).
- iii. This consent **SHALL** contain exactly one [1..1] **statusCode** (CONF:18364).
  - 1. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14) (CONF:19551).

**Figure 25: 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>

```

### 8.1.10 component

A QRDA Category III document contains a Reporting Parameters Section and a Measure section.

- 21. **SHALL** contain exactly one [1..1] **component** (CONF:17217).
  - a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:17235).
    - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:17281) such that it
      - 1. **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).
    - ii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:17283) such that it
      - 1. **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).

**Figure 26: structuredBody Example**

```

<component>
  <structuredBody>
    <component>
      <!-- QRDA Category III Reporting Parameters Section (CMS EP)-->
      <section>
        ...
        <title>Reporting Parameters</title>
        ...
      </section>
    </component>
    <component>
      <!-- QRDA Category III Measure Section (CMS EP) -->
      <section>
        ...
        <title>Measure Section</title>
        ...
      </section>
    </component>
  </structuredBody>
</component>

```

## 8.2 Section-Level Templates

### 8.2.1 QRDA Category III Measure Section (CMS EP)

[section: templateId 2.16.840.1.113883.10.20.27.2.3 (open)]

**Table 12: QRDA Category III Measure Section (CMS EP) Contexts**

Contained By	Contains
<a href="#">QRDA Category III Report - CMS EP</a> (required)	<a href="#">Measure Reference and Results (CMS EP)</a>

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

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

1. Conforms to QRDA Category III Measure Section template (2.16.840.1.113883.10.20.27.2.1).
2. **SHALL** contain exactly one [1..1] `templateId` (CONF:711276) such that it
  - a. **SHALL** contain exactly one [1..1]
   
@root="2.16.840.1.113883.10.20.27.2.3" (CONF:711277).
3. **SHALL** contain exactly one [1..1] `templateId` (CONF:12801) such that it
  - a. **SHALL** contain exactly one [1..1]
   
@root="2.16.840.1.113883.10.20.24.2.2" (CONF:12802).
   
Note: Measure Section templateId
4. **SHALL** contain exactly one [1..1] `templateId` (CONF:17284) such that it

- a. **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
5. **SHALL** contain exactly one [1..1] `code` (CONF:12798).
  - a. This code **SHALL** contain exactly one [1..1] `@code="55186-1"` Measure Section (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:19230).
6. **SHALL** contain exactly one [1..1] `title="Measure Section"` (CONF:12799).
7. **SHALL** contain exactly one [1..1] `text` (CONF:12800).
8. **SHALL** contain at least one [1..\*] `entry` (CONF:711283) such that it
  - a. **SHALL** contain exactly one [1..1] [Measure Reference and Results \(CMS EP\)](#) (templateId:2.16.840.1.113883.10.20.27.3.17) (CONF:711284).

**Figure 27: QRDA-III Measure Section (CMS EP) Example**

```
<section>
  <!-- Measure Section template ID -->
  <templateId root="2.16.840.1.113883.10.20.24.2.2" />
  <!-- QRDA Category III Measure Section template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.2.1" />
  <!-- QRDA Category III Measure Section (CMS EP) template ID -->
  <templateId root="2.16.840.1.113883.10.20.24.2.3" />
  <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 EP) -->
    <organizer classCode="CLUSTER" moodCode="EVN">
      ...
    </organizer>
  </entry>
</section>
```

## 8.2.2 QRDA Category III Reporting Parameters Section (CMS EP)

[section: templateId 2.16.840.1.113883.10.20.27.2.6 (open)]

**Table 13: QRDA Category III Reporting Parameters Section (CMS EP) Contexts**

Contained By	Contains
<a href="#">QRDA Category III Report - CMS EP</a> (required)	<a href="#">Reporting Parameters Act (CMS EP)</a>

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

The QRDA Category III report contains data covering a single time period represented by the reporting parameters act.

1. Conforms to QRDA Category III Reporting Parameters Section template (2.16.840.1.113883.10.20.27.2.2).
2. **SHALL** contain exactly one [1..1] `templateId` (CONF:711278) such that it
  - a. **SHALL** contain exactly one [1..1]
    - `@root="2.16.840.1.113883.10.20.27.2.6"` (CONF:711279).
3. **SHALL** contain exactly one [1..1] `templateId` (CONF:14611) such that it
  - a. **SHALL** contain exactly one [1..1]
    - `@root="2.16.840.1.113883.10.20.17.2.1"` (CONF:14612).  
Note: Reporting Parameters Section templateId
4. **SHALL** contain exactly one [1..1] `templateId` (CONF:18323) such that it
  - a. **SHALL** contain exactly one [1..1]
    - `@root="2.16.840.1.113883.10.20.27.2.2"` (CONF:18324).  
Note: QRDA Category III Reporting Parameters Section templateId
5. **SHALL** contain exactly one [1..1] `code` (CONF:18191).
  - a. This code **SHALL** contain exactly one [1..1] `@code="55187-9"` Reporting Parameters (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:19229).
6. **SHALL** contain exactly one [1..1] `title="Reporting Parameters"` (CONF:4142).
7. **SHALL** contain exactly one [1..1] `text` (CONF:4143).
8. **SHALL** contain exactly one [1..1] `entry` (CONF:711285) such that it
  - a. **SHALL** contain exactly one [1..1] `@typeCode="DRIV"` Is derived from (CodeSystem: HL7ActRelationshipType 2.16.840.1.113883.5.1002 **STATIC**) (CONF:711286).
  - b. **SHALL** contain exactly one [1..1] [Reporting Parameters Act \(CMS EP\)](#) (templateId:2.16.840.1.113883.10.20.27.3.23) (CONF:711175).

**Figure 28: QRDA-III Reporting Parameters Section (CMS EP) Example**

```
<section>
  <!--Reporting Parameters Section template ID -->
  <templateId root="2.16.840.1.113883.10.20.17.2.1" />
  <!--QRDA Category III Reporting Parameters Section template ID-->
  <templateId root="2.16.840.1.113883.10.20.27.2.2" />
  <!--QRDA Category III Reporting Parameters (CMS EP) template ID-->
  <templateId root="2.16.840.1.113883.10.20.27.2.6" />
  <code code="55187-9" codeSystem="2.16.840.1.113883.6.1" />
  <title>Reporting Parameters</title>
  <text>
    <list>
      <item>Reporting period: 01 Jan 2014 - 31 Dec 2014</item>
    </list>
  </text>
  <entry typeCode="DRIV">
    <!-- Reporting Parameters Act (CMS EP) -->
    <act classCode="ACT" moodCode="EVN">
      ...
    </act>
  </entry>
</section>
```

### 8.3 Entry-Level Templates

#### 8.3.1 Aggregate Count (CMS EP)

[observation: templateId 2.16.840.1.113883.10.20.27.3.24 (open)]

**Table 14: Aggregate Count (CMS EP) Contexts**

Contained By	Contains
<a href="#">Measure Data (CMS EP)</a> (required) <a href="#">Reporting Stratum (CMS EP)</a> (required) <a href="#">Race Supplemental Data Element (CMS EP)</a> (required) <a href="#">Ethnicity Supplemental Data Element (CMS EP)</a> (required) <a href="#">Sex Supplemental Data Element (CMS EP)</a> (required) <a href="#">Payer Supplemental Data Element (CMS EP)</a> (required)	

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

**Table 15: Aggregate Count (CMS EP) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Fixed Value
observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.24']					
@classCode	1..1	SHALL		<a href="#">17563</a>	2.16.840.1.113883.5.6 (HL7ActClass) = OBS

XPath	Card.	Verb	Data Type	CONF#	Fixed Value
@moodCode	1..1	SHALL		<a href="#">17564</a>	2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		<a href="#">711262</a>	
@root	1..1	SHALL		<a href="#">711263</a>	2.16.840.1.113883.10.20.27.3.24
templateId	1..1	SHALL		<a href="#">17565</a>	
@root	1..1	SHALL		<a href="#">18095</a>	2.16.840.1.113883.10.20.27.3.3
code	1..1	SHALL		<a href="#">17566</a>	
@code	1..1	SHALL		<a href="#">19508</a>	2.16.840.1.113883.5.4 (ActCode) = MSRAGG
statusCode	1..1	SHALL		<a href="#">711244</a>	
@code	1..1	SHALL		<a href="#">711245</a>	2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	INT	<a href="#">17567</a>	
@value	1..1	SHALL		<a href="#">17568</a>	
methodCode	1..1	SHALL		<a href="#">19509</a>	
@code	1..1	SHALL		<a href="#">19510</a>	2.16.840.1.113883.5.84 (ObservationMethod) = COUNT

1. Conforms to Aggregate Count template (2.16.840.1.113883.10.20.27.3.3).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass 2.16.840.1.113883.5.6 **STATIC**) (CONF:17563).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: ActMood 2.16.840.1.113883.5.1001 **STATIC**) (CONF:17564).
4. **SHALL** contain exactly one [1..1] templateId (CONF:711262) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.24" (CONF:711263).
5. **SHALL** contain exactly one [1..1] templateId (CONF:17565) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.3" (CONF:18095).  
Note: Aggregate Count templateId
6. **SHALL** contain exactly one [1..1] code (CONF:17566).
  - a. This code **SHALL** contain exactly one [1..1] @code="MSRAGG" rate aggregation (CodeSystem: ActCode 2.16.840.1.113883.5.4) (CONF:19508).
7. **SHALL** contain exactly one [1..1] statusCode (CONF:711244).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14) (CONF:711245).
8. **SHALL** contain exactly one [1..1] value with @xsi:type="INT" (CONF:17567).
  - a. This value **SHALL** contain exactly one [1..1] @value (CONF:17568).

9. **SHALL** contain exactly one [1..1] `methodCode` (CONF:19509).
  - a. This `methodCode` **SHALL** contain exactly one [1..1] `@code="COUNT"` `Count` (CodeSystem: ObservationMethod 2.16.840.1.113883.5.84) (CONF:19510).

**Figure 29: Aggregate Count (CMS EP) 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 EP) 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>
```

### 8.3.2 Continuous Variable Measure Value (CMS EP)

[observation: templateId 2.16.840.1.113883.10.20.27.3.26 (open)]

**Table 16: Continuous Variable Measure Value (CMS EP) Contexts**

Contained By	Contains
<a href="#">Measure Data (CMS EP)</a> (optional)	
<a href="#">Reporting Stratum (CMS EP)</a> (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 17: Continuous Variable Measure Value (CMS EP) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Fixed Value
observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.26']					
@classCode	1..1	SHALL		<a href="#">17569</a>	2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">17570</a>	2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		<a href="#">711264</a>	
@root	1..1	SHALL		<a href="#">711265</a>	2.16.840.1.113883.10.20.27.3.26
templateId	1..1	SHALL		<a href="#">18096</a>	

XPath	Card.	Verb	Data Type	CONF#	Fixed Value
@root	1..1	SHALL		<a href="#">18097</a>	2.16.840.1.113883.10.20.27.3.2
code	1..1	SHALL		<a href="#">17571</a>	
statusCode	1..1	SHALL		<a href="#">711241</a>	
@code	1..1	SHALL		<a href="#">711242</a>	2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL		<a href="#">17572</a>	
methodCode	1..1	SHALL		<a href="#">18242</a>	2.16.840.1.113883.1.11.20450 (ObservationMethodAggregate)
reference	1..1	SHALL		<a href="#">18243</a>	
externalObservation	1..1	SHALL		<a href="#">18244</a>	
id	1..1	SHALL		<a href="#">711205</a>	

1. Conforms to Continuous Variable Measure Value template (2.16.840.1.113883.10.20.27.3.2).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass 2.16.840.1.113883.5.6 **STATIC**) (CONF:17569).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: ActMood 2.16.840.1.113883.5.1001 **STATIC**) (CONF:17570).
4. **SHALL** contain exactly one [1..1] templateId (CONF:711264) such that it
  - a. **SHALL** contain exactly one [1..1]
    - @root="2.16.840.1.113883.10.20.27.3.26" (CONF:711265).
5. **SHALL** contain exactly one [1..1] templateId (CONF:18096) such that it
  - a. **SHALL** contain exactly one [1..1]
    - @root="2.16.840.1.113883.10.20.27.3.2" (CONF:18097).
    - Note: Continuous Variable Measure Value templateId
6. **SHALL** contain exactly one [1..1] code (CONF:17571).
  - a. This code element **SHALL** equal the code element in that eMeasure's measure observation definition (CONF:711243).
7. **SHALL** contain exactly one [1..1] statusCode (CONF:711241).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14) (CONF:711242).
8. **SHALL** contain exactly one [1..1] value (CONF:17572).
9. **SHALL** contain exactly one [1..1] methodCode, which **SHALL** be selected from ValueSet observationMethodAggregate 2.16.840.1.113883.1.11.20450 **STATIC** (CONF:18242).
10. **SHALL** contain exactly one [1..1] reference (CONF:18243).
  - a. This reference **SHALL** contain exactly one [1..1] externalObservation (CONF:18244).
    - i. This externalObservation **SHALL** contain exactly one [1..1] id (CONF:711205).
      - Note: This is the id in the eMeasure's measure observation definition.

**Figure 30: Continuous Variable Measure Value (CMS EP) 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 EP) 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>
```

### 8.3.3 Ethnicity Supplemental Data Element (CMS EP)

[observation: templateId 2.16.840.1.113883.10.20.27.3.22 (open)]

**Table 18: Ethnicity Supplemental Data Element (CMS EP) Contexts**

Contained By	Contains
<a href="#">Measure Data (CMS EP)</a> (required)	<a href="#">Aggregate Count (CMS EP)</a>

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 EP 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 19: Ethnicity Supplemental Data Element (CMS EP) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Fixed Value
observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.22']					
@classCode	1..1	SHALL		<a href="#">18216</a>	2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">18217</a>	2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		<a href="#">711253</a>	
@root	1..1	SHALL		<a href="#">711254</a>	2.16.840.1.113883.10.20.27.3.22
templateId	1..1	SHALL		<a href="#">18218</a>	
@root	1..1	SHALL		<a href="#">18219</a>	2.16.840.1.113883.10.20.27.3.7

XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL		<a href="#">18220</a>	
@code	1..1	SHALL		<a href="#">18221</a>	2.16.840.1.113883.6.96 (SNOMED CT) = 364699009
statusCode	1..1	SHALL		<a href="#">18118</a>	
@code	1..1	SHALL		<a href="#">18119</a>	2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">18222</a>	2.16.840.1.114222.4.11.837 (EthnicityGroup)
entryRelationship	1..1	SHALL		<a href="#">18120</a>	
@typeCode	1..1	SHALL		<a href="#">18121</a>	2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">18122</a>	true
observation	1..1	SHALL		<a href="#">711201</a>	

1. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass 2.16.840.1.113883.5.6 **STATIC**) (CONF:18216).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: ActMood 2.16.840.1.113883.5.1001 **STATIC**) (CONF:18217).
3. **SHALL** contain exactly one [1..1] templateId (CONF:711253) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.22" (CONF:711254).
4. **SHALL** contain exactly one [1..1] templateId (CONF:18218) such that it
  - a. **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
5. **SHALL** contain exactly one [1..1] code (CONF:18220).
  - a. This code **SHALL** contain exactly one [1..1] @code="364699009" Ethnic Group (CodeSystem: SNOMED CT 2.16.840.1.113883.6.96) (CONF:18221).
6. **SHALL** contain exactly one [1..1] statusCode (CONF:18118).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14 **STATIC**) (CONF:18119).
7. **SHALL** contain exactly one [1..1] value with @xsi:type="CD", where the code **SHALL** be selected from ValueSet **EthnicityGroup** 2.16.840.1.114222.4.11.837 **DYNAMIC** (CONF:18222).
8. **SHALL** contain exactly one [1..1] entryRelationship (CONF:18120) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType 2.16.840.1.113883.5.1002 **STATIC**) (CONF:18121).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="true" (CONF:18122).
  - c. **SHALL** contain exactly one [1..1] [Aggregate Count \(CMS EP\)](#) (templateId:2.16.840.1.113883.10.20.27.3.24) (CONF:711201).

**Figure 31: Ethnicity Supplemental Data Element (CMS EP) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Ethnicity Supplemental Data Element template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.7"/>
  <!-- Ethnicity Supplemental Data Element (CMS EP) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.22"/>
  <code code="364699009" displayName="Ethnic Group"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED-CT"/>
  <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 EP) -->
  <entryRelationship typeCode="SUBJ" inversionInd="true">
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </entryRelationship>
</observation>
```

### 8.3.4 Measure Data (CMS EP)

[observation: templateId 2.16.840.1.113883.10.20.27.3.16 (open)]

**Table 20: Measure Data (CMS EP) Contexts**

Contained By	Contains
<a href="#">Measure Reference and Results (CMS EP)</a> (required)	<a href="#">Aggregate Count (CMS EP)</a> <a href="#">Continuous Variable Measure Value (CMS EP)</a> <a href="#">Ethnicity Supplemental Data Element (CMS EP)</a> <a href="#">Payer Supplemental Data Element (CMS EP)</a> <a href="#">Race Supplemental Data Element (CMS EP)</a> <a href="#">Reporting Stratum (CMS EP)</a> <a href="#">Sex Supplemental Data Element (CMS EP)</a>

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 patient population (IPP), numerator, and denominator, along with denominator exclusions and denominator exceptions. It is also possible to have eMeasures with multiple population groups (a population group is a set of IPP, numerator, denominator, etc.), and eMeasures with multiple denominators and numerators (for example, an eMeasure with 3 denominators and 2 numerators will require a QRDA Category III report with 6 sets of data). QRDA Category III reports were designed to allow the representation of data sets that map to all of these types of multiple populations.

**Table 21: Measure Data (CMS EP) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Fixed Value
observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.16']					
@classCode	1..1	SHALL		<a href="#">17615</a>	2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">17616</a>	2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		<a href="#">711266</a>	
@root	1..1	SHALL		<a href="#">711267</a>	2.16.840.1.113883.10.20.27.3.16
templateId	1..1	SHALL		<a href="#">17912</a>	
@root	1..1	SHALL		<a href="#">17913</a>	2.16.840.1.113883.10.20.27.3.5
code	1..1	SHALL		<a href="#">17617</a>	
@code	1..1	SHALL		<a href="#">18198</a>	2.16.840.1.113883.5.4 (ActCode) = ASSERTION
statusCode	1..1	SHALL		<a href="#">18199</a>	2.16.840.1.113883.5.14 (ActStatus)
@code	1..1	SHALL		<a href="#">19555</a>	2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">17618</a>	2.16.840.1.113883.1.11.20369 (ObservationPopulationInclusion)
entryRelationship	1..1	SHALL		<a href="#">17619</a>	
@typeCode	1..1	SHALL		<a href="#">17910</a>	SUBJ
@inversionInd	1..1	SHALL		<a href="#">17911</a>	true
observation	1..1	SHALL		<a href="#">711198</a>	
entryRelationship	0..*	MAY		<a href="#">17918</a>	
@typeCode	1..1	SHALL		<a href="#">17919</a>	COMP
observation	1..1	SHALL		<a href="#">711180</a>	
entryRelationship	1..*	SHALL		<a href="#">711190</a>	
@typeCode	1..1	SHALL		<a href="#">18137</a>	2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">711181</a>	
entryRelationship	1..*	SHALL		<a href="#">711191</a>	
@typeCode	1..1	SHALL		<a href="#">18144</a>	2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP

XPath	Card.	Verb	Data Type	CONF#	Fixed Value
observation	1..1	SHALL		<a href="#">711182</a>	
entryRelationship	1..*	SHALL		<a href="#">711192</a>	
@typeCode	1..1	SHALL		<a href="#">18145</a>	2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">711183</a>	
entryRelationship	1..*	SHALL		<a href="#">711193</a>	
@typeCode	1..1	SHALL		<a href="#">18146</a>	2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">711184</a>	
entryRelationship	0..*	MAY		<a href="#">18143</a>	
@typeCode	1..1	SHALL		<a href="#">18148</a>	2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">711212</a>	
reference	1..1	SHALL		<a href="#">18239</a>	
external Observation	1..1	SHALL		<a href="#">18240</a>	
id	1..1	SHALL		<a href="#">711233</a>	

1. Conforms to Measure Data template (2.16.840.1.113883.10.20.27.3.5).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass 2.16.840.1.113883.5.6 **STATIC**) (CONF:17615).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: ActMood 2.16.840.1.113883.5.1001 **STATIC**) (CONF:17616).
4. **SHALL** contain exactly one [1..1] templateId (CONF:711266) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.16" (CONF:711267).
5. **SHALL** contain exactly one [1..1] templateId (CONF:17912) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.5" (CONF:17913).  
Note: Measure Data templateId
6. **SHALL** contain exactly one [1..1] code (CONF:17617).
  - a. This code **SHALL** contain exactly one [1..1] @code="ASSERTION" Assertion (CodeSystem: ActCode 2.16.840.1.113883.5.4 **STATIC**) (CONF:18198).
7. **SHALL** contain exactly one [1..1] statusCode (CodeSystem: ActStatus 2.16.840.1.113883.5.14 **STATIC**) (CONF:18199).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14) (CONF:19555).

8. **SHALL** contain exactly one [1..1] **value** with `@xsi:type="CD"`, where the code **SHOULD** be selected from ValueSet `ObservationPopulationInclusion 2.16.840.1.113883.1.11.20369 DYNAMIC` (CONF:17618).
9. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:17619) such that it
  - a. **SHALL** contain exactly one [1..1] `@typeCode="SUBJ"` (CONF:17910).
  - b. **SHALL** contain exactly one [1..1] `@inversionInd="true"` (CONF:17911).
  - c. **SHALL** contain exactly one [1..1] [Aggregate Count \(CMS EP\)](#) (templateId:2.16.840.1.113883.10.20.27.3.24) (CONF:711198).
10. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:17918) such that it
  - a. **SHALL** contain exactly one [1..1] `@typeCode="COMP"` (CONF:17919).
  - b. **SHALL** contain exactly one [1..1] [Reporting Stratum \(CMS EP\)](#) (templateId:2.16.840.1.113883.10.20.27.3.20) (CONF:711180).
11. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:711190) such that it
  - a. **SHALL** contain exactly one [1..1] `@typeCode="COMP"` (CodeSystem: HL7ActRelationshipType 2.16.840.1.113883.5.1002 **STATIC**) (CONF:18137).
  - b. **SHALL** contain exactly one [1..1] [Sex Supplemental Data Element \(CMS EP\)](#) (templateId:2.16.840.1.113883.10.20.27.3.21) (CONF:711181).
12. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:711191) such that it
  - a. **SHALL** contain exactly one [1..1] `@typeCode="COMP"` (CodeSystem: HL7ActRelationshipType 2.16.840.1.113883.5.1002 **STATIC**) (CONF:18144).
  - b. **SHALL** contain exactly one [1..1] [Ethnicity Supplemental Data Element \(CMS EP\)](#) (templateId:2.16.840.1.113883.10.20.27.3.22) (CONF:711182).
13. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:711192) such that it
  - a. **SHALL** contain exactly one [1..1] `@typeCode="COMP"` (CodeSystem: HL7ActRelationshipType 2.16.840.1.113883.5.1002 **STATIC**) (CONF:18145).
  - b. **SHALL** contain exactly one [1..1] [Race Supplemental Data Element \(CMS EP\)](#) (templateId:2.16.840.1.113883.10.20.27.3.19) (CONF:711183).
14. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:711193) such that it
  - a. **SHALL** contain exactly one [1..1] `@typeCode="COMP"` (CodeSystem: HL7ActRelationshipType 2.16.840.1.113883.5.1002 **STATIC**) (CONF:18146).
  - b. **SHALL** contain exactly one [1..1] [Payer Supplemental Data Element \(CMS EP\)](#) (templateId:2.16.840.1.113883.10.20.27.3.18) (CONF:711184).

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

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

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

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

**Figure 32: Measure Data (CMS EP) Example**

```

<observation classCode="OBS" moodCode="EVN">
  <!-- Measure Data template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.5"/>
  <!-- Measure Data (CMS EP) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.16"/>
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
    displayName="Assertion" codeSystemName="ActCode"/>
  <statusCode code="completed"/>
  <value xsi:type="CD" code="IPP"
    codeSystem="2.16.840.1.113883.5.1063"
    displayName="initial patient population"
    codeSystemName="ObservationValue"/>
  <!-- Aggregate Count (CMS EP) -->
  <entryRelationship typeCode="SUBJ" inversionInd="true">
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </entryRelationship>
  <!-- Sex Supplemental Data Element (CMS EP) -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </entryRelationship>
  <!-- Ethnicity Supplemental Data Element (CMS EP) -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </entryRelationship>
  <!-- Race Supplemental Data Element (CMS EP) -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </entryRelationship>
  <!-- Payer Supplemental Data Element (CMS EP) -->
  <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 IPP -->
    </externalObservation>
  </reference>
</observation>

```

### 8.3.5 Measure Reference and Results (CMS EP)

[organizer: templateId 2.16.840.1.113883.10.20.27.3.17 (open)]

**Table 22: Measure Reference and Results (CMS EP) Contexts**

Contained By	Contains
<a href="#">QRDA Category III Measure Section (CMS EP)</a> (required)	<a href="#">Measure Data (CMS EP)</a> <a href="#">Performance Rate for Proportion Measure (CMS EP)</a>

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 23: Measure Reference and Results (CMS EP) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Fixed Value
organizer[templateId/@root = '2.16.840.1.113883.10.20.27.3.17']					
@classCode	1..1	SHALL		<a href="#">17887</a>	2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		<a href="#">17888</a>	2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		<a href="#">711268</a>	
@root	1..1	SHALL		<a href="#">711269</a>	2.16.840.1.113883.10.20.27.3.17
templateId	1..1	SHALL		<a href="#">19532</a>	
@root	1..1	SHALL		<a href="#">19533</a>	2.16.840.1.113883.10.20.24.3.98
templateId	1..1	SHALL		<a href="#">17908</a>	
@root	1..1	SHALL		<a href="#">17909</a>	2.16.840.1.113883.10.20.27.3.1
statusCode	1..1	SHALL		<a href="#">17889</a>	
@code	1..1	SHALL		<a href="#">19552</a>	2.16.840.1.113883.5.14 (ActStatus) = completed
reference	1..1	SHALL		<a href="#">17890</a>	
@typeCode	1..1	SHALL		<a href="#">17891</a>	REFR
external Document	1..1	SHALL		<a href="#">17892</a>	2.16.840.1.113883.5.6 (HL7ActClass)
@classCode	1..1	SHALL		<a href="#">19548</a>	2.16.840.1.113883.5.6 (HL7ActClass)

XPath	Card.	Verb	Data Type	CONF#	Fixed Value
id	1..1	SHALL		<a href="#">18192</a>	
@root	1..1	SHALL		<a href="#">18193</a>	2.16.840.1.113883.4.738
@extension	1..1	SHALL		<a href="#">21159</a>	
code	0..1	SHOULD		<a href="#">17896</a>	2.16.840.1.113883.6.1 (LOINC)
@code	1..1	SHALL		<a href="#">19553</a>	2.16.840.1.113883.6.1 (LOINC) = 57024-2
text	0..1	SHOULD		<a href="#">17897</a>	
component	0..*	MAY		<a href="#">17903</a>	
observation	1..1	SHALL		<a href="#">711213</a>	
component	1..*	SHALL		<a href="#">18425</a>	
observation	1..1	SHALL		<a href="#">18428</a>	

1. Conforms to Measure Reference and Results template (2.16.840.1.113883.10.20.27.3.1).
2. **SHALL** contain exactly one [1..1] @classCode="CLUSTER" (CodeSystem: HL7ActClass 2.16.840.1.113883.5.6 **STATIC**) (CONF:17887).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: ActMood 2.16.840.1.113883.5.1001 **STATIC**) (CONF:17888).
4. **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).
5. **SHALL** contain exactly one [1..1] templateId (CONF:19532) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.98" (CONF:19533).  
Note: Measure Reference templateId
6. **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" (CONF:17909).  
Note: Measure Reference and Results templateId
7. **SHALL** contain exactly one [1..1] statusCode (CONF:17889).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14) (CONF:19552).
8. **SHALL** contain exactly one [1..1] reference (CONF:17890) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" (CONF:17891).
  - b. **SHALL** contain exactly one [1..1] externalDocument (CodeSystem: HL7ActClass 2.16.840.1.113883.5.6 **STATIC**) (CONF:17892).
    - i. This externalDocument **SHALL** contain exactly one [1..1] @classCode="DOC" Document (CodeSystem: HL7ActClass 2.16.840.1.113883.5.6) (CONF:19548).

- ii. This externalDocument **SHALL** contain exactly one [1..1] **id** (CONF:18192) such that it
  - 1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.4.738" (CONF: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:21159).  
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 2.16.840.1.113883.6.1 **STATIC**) (CONF:17896).
  - 1. The code, if present, **SHALL** contain exactly one [1..1] **@code**="57024-2" Health Quality Measure Document (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF: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:17897).

The Performance Rate for Proportion Measure (CMS EP) template is required for the CPC Program.

The Performance Rate for Proportion Measure (CMS EP) template is required for the PQRS Program.

- 9. **MAY** contain zero or more [0..\*] **component** (CONF:17903) such that it
  - a. **SHALL** contain exactly one [1..1] Performance Rate for Proportion Measure (CMS EP) (templateId:2.16.840.1.113883.10.20.27.3.25) (CONF:711213).
- 10. **SHALL** contain at least one [1..\*] **component** (CONF:18425) such that it
  - a. **SHALL** contain exactly one [1..1] Measure Data (CMS EP) (templateId:2.16.840.1.113883.10.20.27.3.16) (CONF:18428).

**Figure 33: Measure Reference and Results (CMS EP) 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 template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.1" />
  <!-- Measure Reference and Results (CMS EP) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.17" />
  <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 EP) -->
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </component>
</organizer>

```

### 8.3.6 Payer Supplemental Data Element (CMS EP)

[observation: templateId 2.16.840.1.113883.10.20.27.3.18 (open)]

**Table 24: Payer Supplemental Data Element (CMS EP) Contexts**

Contained By	Contains
<a href="#">Measure Data (CMS EP)</a> (required)	<a href="#">Aggregate Count (CMS EP)</a>

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 EP 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 25: Payer Supplemental Data Element (CMS EP) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Fixed Value
observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.18']					
@classCode	1..1	SHALL		<a href="#">21155</a>	2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">21156</a>	2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		<a href="#">711270</a>	
@root	1..1	SHALL		<a href="#">711271</a>	2.16.840.1.113883.10.20.27.3.18
templateId	1..1	SHALL		<a href="#">12561</a>	
@root	1..1	SHALL		<a href="#">12562</a>	2.16.840.1.113883.10.20.24.3.55
id	1..*	SHALL		<a href="#">12564</a>	
code	1..1	SHALL		<a href="#">12565</a>	
@code	1..1	SHALL		<a href="#">14029</a>	2.16.840.1.113883.6.1 (LOINC) = 48768-6
statusCode	1..1	SHALL		<a href="#">18106</a>	
@code	1..1	SHALL		<a href="#">18107</a>	2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">711196</a>	
translation	1..1	SHALL		<a href="#">711230</a>	
@code	1..1	SHALL		<a href="#">711231</a>	2.16.840.1.113883.3.249.14.102 (CMS Payer Groupings)
@nullFlavor	1..1	SHALL		<a href="#">711229</a>	OTH
entryRelationship	1..1	SHALL		<a href="#">18108</a>	
@typeCode	1..1	SHALL		<a href="#">18109</a>	2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">18110</a>	true
observation	1..1	SHALL		<a href="#">711199</a>	

1. Conforms to Payer Supplemental Data Element template (2.16.840.1.113883.10.20.27.3.9).
2. **SHALL** contain exactly one [1..1] `@classCode="OBS"` (CodeSystem: HL7ActClass 2.16.840.1.113883.5.6 **STATIC**) (CONF:21155).
3. **SHALL** contain exactly one [1..1] `@moodCode="EVN"` (CodeSystem: ActMood 2.16.840.1.113883.5.1001 **STATIC**) (CONF:21156).
4. **SHALL** contain exactly one [1..1] `templateId` (CONF:711270) such that it
  - a. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.27.3.18"` (CONF:711271).
5. **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
6. **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
7. **SHALL** contain at least one [1..\*] `id` (CONF:12564).
8. **SHALL** contain exactly one [1..1] `code` (CONF:12565).
  - a. This code **SHALL** contain exactly one [1..1] `@code="48768-6"` Payment Source (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:14029).
9. **SHALL** contain exactly one [1..1] `statusCode` (CONF:18106).
  - a. This `statusCode` **SHALL** contain exactly one [1..1] `@code="completed"` Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14 **STATIC**) (CONF:18107).
10. **SHALL** contain exactly one [1..1] `value` with `@xsi:type="CD"` (CONF:711196).
  - a. This value **SHALL** contain exactly one [1..1] `translation` (CONF:711230).
    - i. 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:711231).
  - b. This value **SHALL** contain exactly one [1..1] `@nullFlavor="OTH"` (CONF:711229).
11. **SHALL** contain exactly one [1..1] `entryRelationship` (CONF:18108) such that it
  - a. **SHALL** contain exactly one [1..1] `@typeCode="SUBJ"` Has Subject (CodeSystem: HL7ActRelationshipType 2.16.840.1.113883.5.1002 **STATIC**) (CONF:18109).
  - b. **SHALL** contain exactly one [1..1] `@inversionInd="true"` (CONF:18110).
  - c. **SHALL** contain exactly one [1..1] [Aggregate Count \(CMS EP\)](#) (`templateId:2.16.840.1.113883.10.20.27.3.24`) (CONF:711199).

**Table 26: 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:			
<ul style="list-style-type: none"> <li>• Payer Grouping A: Medicare (1)</li> <li>• Payer Grouping B: Medicaid (2)</li> <li>• Payer Grouping C: Private Health Insurance (5), Blue Cross/Blue Shield (6)</li> <li>• Payer Grouping D: Other Government (3), Department of Corrections (4), Managed Care Unspecified (7), No Payment Listed (8), Miscellaneous/Other (9)</li> </ul>			
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 34: Payer Supplemental Data Element (CMS EP) Example**

```

<observation classCode="OBS" moodCode="EVN">
  <!-- Payer Characteristic Payer template ID -->
  <templateId root="2.16.840.1.113883.10.20.24.3.55"/>
  <!-- Payer Supplemental Data Element template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.9"/>
  <!-- Payer Supplemental Data Element (CMS EP) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.18"/>
  <id nullFlavor="NA"/>
  <code code="48768-6" displayName="Payment source"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="SNOMED-CT"/>
  <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 EP) -->
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </entryRelationship>
</observation>

```

### 8.3.7 Performance Rate for Proportion Measure (CMS EP)

[observation: templateId 2.16.840.1.113883.10.20.27.3.25 (open)]

**Table 27: Performance Rate for Proportion Measure (CMS EP) Contexts**

Contained By	Contains
<a href="#">Measure Reference and Results (CMS EP)</a> (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) / (DENOM – DENOM EXCL – DENOM EXCEP).

**Table 28: Performance Rate for Proportion Measure (CMS EP) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Fixed Value
observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.25']					
@classCode	1..1	SHALL		<a href="#">18395</a>	2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">18396</a>	2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		<a href="#">711255</a>	
@root	1..1	SHALL		<a href="#">711256</a>	2.16.840.1.113883.10.20.27.3.25
templateId	1..1	SHALL		<a href="#">19649</a>	
@root	1..1	SHALL		<a href="#">19650</a>	2.16.840.1.113883.10.20.27.3.14
code	1..1	SHALL		<a href="#">18397</a>	
@code	1..1	SHALL		<a href="#">18398</a>	2.16.840.1.113883.6.1 (LOINC) = 72510-1
statusCode	1..1	SHALL		<a href="#">18421</a>	
@code	1..1	SHALL		<a href="#">18422</a>	2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	REAL	<a href="#">18399</a>	
reference	1..1	SHALL		<a href="#">711203</a>	
@typeCode	1..1	SHALL		<a href="#">19652</a>	2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
external Observation	1..1	SHALL		<a href="#">19653</a>	
@classCode	1..1	SHALL		<a href="#">19654</a>	2.16.840.1.113883.5.6 (HL7ActClass)
id	1..1	SHALL		<a href="#">711204</a>	

XPath	Card.	Verb	Data Type	CONF#	Fixed Value
@root	1..1	SHALL		<a href="#">19656</a>	
code	1..1	SHALL		<a href="#">19657</a>	
@code	1..1	SHALL		<a href="#">19658</a>	2.16.840.1.113883.5.1063 (ObservationValue) = NUMER

1. Conforms to Performance Rate for Proportion Measure template (2.16.840.1.113883.10.20.27.3.14).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass 2.16.840.1.113883.5.6 **STATIC**) (CONF:18395).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: ActMood 2.16.840.1.113883.5.1001 **STATIC**) (CONF:18396).
4. **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).
5. **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).  
Note: Performance Rate for Proportion Measure templateId
6. **SHALL** contain exactly one [1..1] code (CONF:18397).
  - a. This code **SHALL** contain exactly one [1..1] @code="72510-1" Performance Rate (CodeSystem: LOINC 2.16.840.1.113883.6.1 **STATIC**) (CONF:18398).
7. **SHALL** contain exactly one [1..1] statusCode (CONF:18421).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14 **STATIC**) (CONF:18422).
8. **SHALL** contain exactly one [1..1] value with @xsi:type="REAL" (CONF:18399).  
This is a reference to the specific Numerator included in the calculation.
9. **SHALL** contain exactly one [1..1] reference (CONF:711203).
  - a. This reference **SHALL** contain exactly one [1..1] @typeCode="REFR" refers to (CodeSystem: HL7ActRelationshipType 2.16.840.1.113883.5.1002) (CONF:19652).
  - b. This reference **SHALL** contain exactly one [1..1] externalObservation (CONF:19653).
    - i. This externalObservation **SHALL** contain exactly one [1..1] @classCode (CodeSystem: HL7ActClass 2.16.840.1.113883.5.6) (CONF:19654).
    - ii. This externalObservation **SHALL** contain exactly one [1..1] id (CONF:711204).
      1. This id **SHALL** contain exactly one [1..1] @root (CONF:19656).  
Note: This is the ID of the numerator in the referenced eMeasure.
    - iii. This externalObservation **SHALL** contain exactly one [1..1] code (CONF:19657).

1. This code **SHALL** contain exactly one [1..1] @code="NUMER" Numerator (CodeSystem: ObservationValue 2.16.840.1.113883.5.1063) (CONF:19658).

**Figure 35: Performance Rate for Proportion Measure (CMS EP) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Performance Rate for Proportion Measure template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.14"/>
  <!-- Performance Rate for Proportion Measure (CMS EP)
  template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.25"/>
  <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="0.833"/>
  <!-- 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="17D7EEFE-C12C-4020-BA68-545A3FFC3598"/>
      <code code="NUMER" displayName="Numerator"
        codeSystem="2.16.840.1.113883.5.1063"
        codeSystemName="ObservationValue"/>
    </externalObservation>
  </reference>
</observation>
```

### 8.3.8 Race Supplemental Data Element (CMS EP)

[observation: templateId 2.16.840.1.113883.10.20.27.3.19 (open)]

**Table 29: Race Supplemental Data Element (CMS EP) Contexts**

Contained By	Contains
<a href="#">Measure Data (CMS EP)</a> (required)	<a href="#">Aggregate Count (CMS EP)</a>

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 EP 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 30: Race Supplemental Data Element (CMS EP) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Fixed Value
observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.19']					
@classCode	1..1	SHALL		<a href="#">18223</a>	2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">18224</a>	2.16.840.1.113883.5.1001 (ActMood) = EVN

XPath	Card.	Verb	Data Type	CONF#	Fixed Value
templateId	1..1	SHALL		<a href="#">711257</a>	
@root	1..1	SHALL		<a href="#">711258</a>	2.16.840.1.113883.10.20.27.3.19
templateId	1..1	SHALL		<a href="#">18225</a>	
@root	1..1	SHALL		<a href="#">18226</a>	2.16.840.1.113883.10.20.27.3.8
code	1..1	SHALL		<a href="#">18227</a>	
@code	1..1	SHALL		<a href="#">18228</a>	2.16.840.1.113883.6.96 (SNOMED CT) = 103579009
statusCode	1..1	SHALL		<a href="#">18112</a>	
@code	1..1	SHALL		<a href="#">18113</a>	2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">18229</a>	2.16.840.1.114222.4.11.836 (RaceCategory)
entryRelationship	1..1	SHALL		<a href="#">18114</a>	
@typeCode	1..1	SHALL		<a href="#">18115</a>	2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">18116</a>	true
observation	1..1	SHALL		<a href="#">711200</a>	

1. Conforms to Race Supplemental Data Element template (2.16.840.1.113883.10.20.27.3.8).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass 2.16.840.1.113883.5.6 **STATIC**) (CONF:18223).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: ActMood 2.16.840.1.113883.5.1001 **STATIC**) (CONF:18224).
4. **SHALL** contain exactly one [1..1] templateId (CONF:711257) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.19" (CONF:711258).
5. **SHALL** contain exactly one [1..1] templateId (CONF:18225) such that it
  - a. **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
6. **SHALL** contain exactly one [1..1] code (CONF:18227).
  - a. This code **SHALL** contain exactly one [1..1] @code="103579009" Race (CodeSystem: SNOMED CT 2.16.840.1.113883.6.96) (CONF:18228).
7. **SHALL** contain exactly one [1..1] statusCode (CONF:18112).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14 **STATIC**) (CONF:18113).

- 8. **SHALL** contain exactly one [1..1] **value** with `@xsi:type="CD"`, where the code **SHALL** be selected from ValueSet **RaceCategory** 2.16.840.1.114222.4.11.836 **DYNAMIC** (CONF:18229).
- 9. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:18114) such that it
  - a. **SHALL** contain exactly one [1..1] `@typeCode="SUBJ"` Has Subject (CodeSystem: HL7ActRelationshipType 2.16.840.1.113883.5.1002 **STATIC**) (CONF:18115).
  - b. **SHALL** contain exactly one [1..1] `@inversionInd="true"` (CONF:18116).
  - c. **SHALL** contain exactly one [1..1] Aggregate Count (CMS EP) (templateId:2.16.840.1.113883.10.20.27.3.24) (CONF:711200).

**Figure 36: Race Supplemental Data Element (CMS EP) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Race Supplemental Data Element template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.8"/>
  <!-- Race Supplemental Data Element (CMS EP) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.19"/>
  <code code="103579009"
    displayName="Race"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED-CT"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    code="2054-5"
    displayName="Black or African American"
    codeSystem="2.16.840.1.113883.6.238"
    codeSystemName="Race & Ethnicity - CDC"/>
  <entryRelationship typeCode="SUBJ" inversionInd="true">
    <!-- Aggregate Count (CMS EP) -->
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </entryRelationship>
</observation>
```

### 8.3.9 Reporting Parameters Act (CMS EP)

[act: templateId 2.16.840.1.113883.10.20.27.3.23 (open)]

**Table 31: Reporting Parameters Act (CMS EP) Contexts**

Contained By	Contains
<a href="#">QRDA Category III Reporting Parameters Section (CMS EP)</a> (required)	

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

**Table 32: Reporting Parameters Act (CMS EP) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Fixed Value
act[templateId/@root = '2.16.840.1.113883.10.20.27.3.23']					
@classCode	1..1	SHALL		<a href="#">3269</a>	2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">3270</a>	2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		<a href="#">711272</a>	
@root	1..1	SHALL		<a href="#">711273</a>	2.16.840.1.113883.10.20.27.3.23
templateId	1..1	SHALL		<a href="#">18098</a>	
@root	1..1	SHALL		<a href="#">18099</a>	2.16.840.1.113883.10.20.17.3.8
code	1..1	SHALL		<a href="#">3272</a>	2.16.840.1.113883.6.96 (SNOMED CT) = 252116004
effectiveTime	1..1	SHALL		<a href="#">3273</a>	
low	1..1	SHALL		<a href="#">3274</a>	
high	1..1	SHALL		<a href="#">3275</a>	

1. Conforms to Reporting Parameters Act template (2.16.840.1.113883.10.20.17.3.8).
2. **SHALL** contain exactly one [1..1] @classCode="ACT" (CodeSystem: HL7ActClass 2.16.840.1.113883.5.6 **STATIC**) (CONF:3269).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: ActMood 2.16.840.1.113883.5.1001 **STATIC**) (CONF:3270).
4. **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).
5. **SHALL** contain exactly one [1..1] templateId (CONF:18098) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.17.3.8" (CONF:18099).  
Note: Reporting Parameters Act templateId
6. **SHALL** contain exactly one [1..1] code="252116004" Observation Parameters (CodeSystem: SNOMED CT 2.16.840.1.113883.6.96 **STATIC**) (CONF:3272).
7. **SHALL** contain exactly one [1..1] effectiveTime (CONF:3273).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] low (CONF:3274).
    - i. **SHALL** be precise to day (CONF:711288).
  - b. This effectiveTime **SHALL** contain exactly one [1..1] high (CONF:3275).
    - i. **SHALL** be precise to day (CONF:711289).

**Figure 37: Reporting Parameters Act (CMS EP) Example**

```
<act classCode="ACT" moodCode="EVN">
  <!-- Reporting Parameters Act template ID -->
  <templateId root="2.16.840.1.113883.10.20.17.3.8"/>
  <!-- Reporting Parameters Act (CMS EP) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.23"/>
  <id root="55a43e20-6463-46eb-81c3-9a3a1ad41225"/>
  <code code="252116004"
        codeSystem="2.16.840.1.113883.6.96"
        displayName="Observation Parameters" />
  <effectiveTime>
    <!-- The low value is the start date of the reporting period -->
    <low value="20140101"/>
    <!-- The high value is the end date of the reporting period -->
    <high value="20141231"/>
  </effectiveTime>
</act>
```

### 8.3.10 Reporting Stratum (CMS EP)

[observation: templateId 2.16.840.1.113883.10.20.27.3.20 (open)]

**Table 33: Reporting Stratum (CMS EP) Contexts**

Contained By	Contains
<a href="#">Measure Data (CMS EP)</a> (optional)	<a href="#">Aggregate Count (CMS EP)</a> <a href="#">Continuous Variable Measure Value (CMS EP)</a>

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 EP program reporting, even if the count is zero. Each stratum identified in the referenced eMeasure(s), must be reported for each population.

**Table 34: Reporting Stratum (CMS EP) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Fixed Value
observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.20']					
@classCode	1..1	SHALL		<a href="#">17575</a>	2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">17576</a>	2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		<a href="#">711274</a>	
@root	1..1	SHALL		<a href="#">711275</a>	2.16.840.1.113883.10.20.27.3.20
templateId	1..1	SHALL		<a href="#">18093</a>	
@root	1..1	SHALL		<a href="#">18094</a>	2.16.840.1.113883.10.20.27.3.4
code	1..1	SHALL		<a href="#">17577</a>	
@code	1..1	SHALL		<a href="#">17578</a>	2.16.840.1.113883.5.4 (ActCode) = ASSERTION
statusCode	1..1	SHALL		<a href="#">17579</a>	
@code	1..1	SHALL		<a href="#">18201</a>	2.16.840.1.113883.5.14 (ActStatus) = completed
value	0..1	SHOULD		<a href="#">17580</a>	
entryRelationship	1..1	SHALL		<a href="#">17581</a>	
@typeCode	1..1	SHALL		<a href="#">17582</a>	SUBJ
@inversionInd	1..1	SHALL		<a href="#">17583</a>	true
observation	1..1	SHALL		<a href="#">711197</a>	
entryRelationship	0..*	MAY		<a href="#">19511</a>	
observation	1..1	SHALL		<a href="#">711211</a>	
reference	1..1	SHALL		<a href="#">18204</a>	
@typeCode	1..1	SHALL		<a href="#">18205</a>	2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
external Observation	1..1	SHALL		<a href="#">18206</a>	
id	1..1	SHALL		<a href="#">711210</a>	

1. **Conforms to Reporting Stratum template**  
(2.16.840.1.113883.10.20.27.3.4).
2. **SHALL** contain exactly one [1..1] `@classCode="OBS"` (CodeSystem: HL7ActClass 2.16.840.1.113883.5.6 **STATIC**) (CONF:17575).
3. **SHALL** contain exactly one [1..1] `@moodCode="EVN"` (CodeSystem: ActMood 2.16.840.1.113883.5.1001 **STATIC**) (CONF:17576).
4. **SHALL** contain exactly one [1..1] `templateId` (CONF:711274) such that it
  - a. **SHALL** contain exactly one [1..1]  
`@root="2.16.840.1.113883.10.20.27.3.20"` (CONF:711275).
5. **SHALL** contain exactly one [1..1] `templateId` (CONF:18093) such that it
  - a. **SHALL** contain exactly one [1..1]  
`@root="2.16.840.1.113883.10.20.27.3.4"` (CONF:18094).  
Note: Reporting Stratum templateId
6. **SHALL** contain exactly one [1..1] `code` (CONF:17577).
  - a. This code **SHALL** contain exactly one [1..1] `@code="ASSERTION"` Assertion (CodeSystem: ActCode 2.16.840.1.113883.5.4 **STATIC**) (CONF:17578).
7. **SHALL** contain exactly one [1..1] `statusCode` (CONF:17579).
  - a. This `statusCode` **SHALL** contain exactly one [1..1] `@code="completed"` Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14 **STATIC**) (CONF:18201).
8. **SHOULD** contain zero or one [0..1] `value` (CONF: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:711232).
9. **SHALL** contain exactly one [1..1] `entryRelationship` (CONF:17581) such that it
  - a. **SHALL** contain exactly one [1..1] `@typeCode="SUBJ"` (CONF:17582).
  - b. **SHALL** contain exactly one [1..1] `@inversionInd="true"` (CONF:17583).
  - c. **SHALL** contain exactly one [1..1] Aggregate Count (CMS EP)  
(`templateId:2.16.840.1.113883.10.20.27.3.24`) (CONF: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:19511) such that it
  - a. **SHALL** contain exactly one [1..1] Continuous Variable Measure Value (CMS EP)  
(`templateId:2.16.840.1.113883.10.20.27.3.26`) (CONF:711211).
11. **SHALL** contain exactly one [1..1] `reference` (CONF:18204).
  - a. This reference **SHALL** contain exactly one [1..1] `@typeCode="REFR"` (CodeSystem: HL7ActRelationshipType 2.16.840.1.113883.5.1002 **STATIC**) (CONF:18205).
  - b. This reference **SHALL** contain exactly one [1..1] `externalObservation` (CONF:18206).
    - i. This `externalObservation` **SHALL** contain exactly one [1..1] `id` (CONF:711210).  
Note: This is the ID of the stratum in the referenced eMeasure.

**Figure 38: Reporting Stratum (CMS EP) 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 EP) 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 EP) -->
    <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>
```

### 8.3.11 Sex Supplemental Data Element (CMS EP)

[observation: templateId 2.16.840.1.113883.10.20.27.3.21 (open)]

**Table 35: Sex Supplemental Data Element (CMS EP) Contexts**

Contained By	Contains
<a href="#">Measure Data (CMS EP)</a> (required)	<a href="#">Aggregate Count (CMS EP)</a>

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 EP 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 36: Sex Supplemental Data Element (CMS EP) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Fixed Value
observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.21']					
@classCode	1..1	SHALL		<a href="#">18230</a>	2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">18231</a>	2.16.840.1.113883.5.1001 (ActMood) = EVN

XPath	Card.	Verb	Data Type	CONF#	Fixed Value
templateId	1..1	SHALL		<a href="#">711259</a>	
@root	1..1	SHALL		<a href="#">711260</a>	2.16.840.1.113883.10.20.27.3.21
templateId	1..1	SHALL		<a href="#">18232</a>	
@root	1..1	SHALL		<a href="#">18233</a>	2.16.840.1.113883.10.20.27.3.6
code	1..1	SHALL		<a href="#">18234</a>	
@code	1..1	SHALL		<a href="#">18235</a>	2.16.840.1.113883.6.96 (SNOMED CT) = 184100006
statusCode	1..1	SHALL		<a href="#">18124</a>	
@code	1..1	SHALL		<a href="#">18125</a>	2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">18236</a>	2.16.840.1.113883.1.11.1 (Administrative Gender (HL7 V3))
entryRelationship	1..1	SHALL		<a href="#">18126</a>	
@typeCode	1..1	SHALL		<a href="#">18127</a>	2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">18128</a>	true
observation	1..1	SHALL		<a href="#">711202</a>	

1. Conforms to Sex Supplemental Data Element template (2.16.840.1.113883.10.20.27.3.6).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass 2.16.840.1.113883.5.6 **STATIC**) (CONF:18230).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: ActMood 2.16.840.1.113883.5.1001 **STATIC**) (CONF:18231).
4. **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).
5. **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
6. **SHALL** contain exactly one [1..1] code (CONF:18234).
  - a. This code **SHALL** contain exactly one [1..1] @code="184100006" Patient sex (CodeSystem: SNOMED CT 2.16.840.1.113883.6.96 **STATIC**) (CONF:18235).
7. **SHALL** contain exactly one [1..1] statusCode (CONF:18124).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14 **STATIC**) (CONF:18125).

8. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"**, where the code **SHALL** be selected from ValueSet **Administrative Gender (HL7 V3)** 2.16.840.1.113883.1.11.1 **DYNAMIC** (CONF:18236).
  - a. 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).
9. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:18126) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** Has Subject (CodeSystem: HL7ActRelationshipType 2.16.840.1.113883.5.1002 **STATIC**) (CONF:18127).
  - b. **SHALL** contain exactly one [1..1] **@inversionInd="true"** (CONF:18128).
  - c. **SHALL** contain exactly one [1..1] **Aggregate Count (CMS EP)** (templateId:2.16.840.1.113883.10.20.27.3.24) (CONF:711202).

**Figure 39: Sex Supplemental Data Element (CMS EP) Example**

```

<observation classCode="OBS" moodCode="EVN">
  <!-- Sex Supplemental Data Element template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.6"/>
  <!-- Sex Supplemental Data Element (CMS EP) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.21"/>
  <code code="184100006"
    displayName="patient sex"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED-CT"/>
  <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 EP) -->
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </entryRelationship>
</observation>

```

# APPENDIX

## 9. Troubleshooting and Support

### 9.1 Resources

The following provide additional information:

- **eCQM Library** contains resources for eCQMs including Measure Logic Guidance: [http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/eCQM\\_Library.html](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: <http://oncprojecttracking.org/secure/Dashboard.jspa>

### 9.2 Support

Contact	Org.	Phone	Email	Role	Responsibility
CMS IT Service Desk	CMS	(410) 786-2580 (800) 562-1963	<a href="mailto:CMS.IT.Service.Desk@cms.hhs.gov">CMS.IT.Service.Desk@cms.hhs.gov</a>	Help desk support	1 <sup>st</sup> level user support & problem reporting
QNet Help Desk	QualityNet	(866) 288-8912	<a href="mailto:qnetsupport@hcqis.org">qnetsupport@hcqis.org</a>	Help desk support	1 <sup>st</sup> level user support & problem reporting
CPC Help Desk	CPC / Telligen	(800) 381-4724	<a href="mailto:cpcisupport@telligen.org">cpcisupport@telligen.org</a>	Help desk support	CPC support & problem reporting

### 9.3 Errata or Enhancement Requests

Table 37: Errata or Enhancement Request Location

Contact	Organization	URL	Purpose
HL7 QRDA I, DSTU Release 2 Comments page	HL7	<a href="http://www.hl7.org/dstucomments/showdetail.cfm?dstuid=80">http://www.hl7.org/dstucomments/showdetail.cfm?dstuid=80</a>	Document errors or enhancement request to the HL7 standard.
HL7 QRDA III, DSTU Release 1 Comments page	HL7	<a href="http://www.hl7.org/dstucomments/showdetail.cfm?dstuid=90">http://www.hl7.org/dstucomments/showdetail.cfm?dstuid=90</a>	Document errors or enhancement request to the HL7 standard.

## 10. QRDA-I DSTU R2 Supplemental Implementation Guide Changes to Base Standard

This table lists all changes made to QRDA-I for Part A of this 2015 guide. The "Base Standard" is the *HL7 Implementation Guide for CDA Release 2: Quality Report Document Architecture, Category I, DSTU Release 2, (US Realm), Draft Standard for Trial Use—July 2012* including updates to non-normative content for errata approved as of July, 2014.

**Table 38: Changes Made to the QRDA-I Base Standard**

CONF. #	Section	Base Standard	Changed To
CMS_0001	5.1.1	n/a	Conforms to QDM-Based QRDA template (2.16.840.1.113883.10.20.24.1.2). <b>SHALL</b> contain exactly one [1..1] <code>templateId</code> (CONF: CMS_0001) such that it
CMS_0002	5.1.1	n/a	<b>SHALL</b> contain exactly one [1..1] <code>@root="2.16.840.1.113883.10.20.24.1.3"</code> (CONF: CMS_0002).
CMS_0010	5.1.1	n/a	This <code>languageCode</code> <b>SHALL</b> contain exactly one [1..1] <code>@code="en"</code> English (CodeSystem: Language 2.16.840.1.113883.6.121) (CMS_0010).
CMS_0003	5.1.1	<b>MAY</b> contain zero or more [0..*] <code>participant</code> (CONF:10003).	<b>MAY</b> contain zero or more [0..*] <code>participant</code> (CONF:CMS_0003) such that it
CMS_0004 CMS_0005 CMS_0006	5.1.1	n/a	<b>SHALL</b> contain exactly one [1..1] <code>associatedEntity</code> (CONF: CMS_0004) <ul style="list-style-type: none"> <li>This <code>associatedEntity</code> <b>MAY</b> contain zero or one [0..1] <code>id</code> (CONF: CMS_0005) such that it</li> <li><b>SHALL</b> contain exactly one [1..1] <code>@root='2.16.840.1.113883.3.2074.1'</code> CMS EHR Certification Number (formerly known as Office of the National Coordinator Certification Number) and the value of <code>@extension</code> is the Certification Number (CONF: CMS_0006).</li> </ul>
CMS_0007	5.1.2	n/a	<b>SHALL</b> contain exactly one [1..1] Patient Identifier Number (CONF: CMS_0007)

CONF. #	Section	Base Standard	Changed To
CMS_0008	5.1.2	<b>SHOULD</b> contain zero or one [0..1] <b>postalCode</b> (ValueSet: PostalCodeValueSet 2.16.840.1.113883.3.88.12.80.2 <b>DYNAMIC</b> ) (CONF:7294).	<b>SHOULD</b> contain zero or one [0..1] <b>postalCode</b> (CONF:CMS_0008).
CMS_0009	5.1.2	<b>SHOULD</b> contain zero or one [0..1] <b>country</b> , where the @code <b>SHALL</b> be selected from ValueSet CountryValueSet 2.16.840.1.113883.3.88.12.80.63 <b>DYNAMIC</b> (CONF:7295).	<b>SHOULD</b> contain zero or one [0..1] <b>country</b> (CONF:CMS_0009).
CMS_0011	5.1.2	This patient <b>SHALL</b> contain exactly one [1..1] <b>administrativeGenderCode</b> , which <b>SHALL</b> be selected from ValueSet 2.16.840.1.113883.1.11.1 (Administrative Gender Value Set) <b>DYNAMIC</b> (CONF:6394).	This patient <b>SHALL</b> contain exactly one [1..1] <b>administrativeGenderCode</b> , which <b>SHALL</b> be selected from either ValueSet <b>ONC Administrative Sex</b> 2.16.840.1.113762.1.4.1 or ValueSet <b>Administrative Gender (HL7 V3)</b> 2.16.840.1.113883.1.11.1 <b>DYNAMIC</b> (CONF: CMS_0011).
CMS_0012	5.1.2	<b>SHOULD</b> be precise to day (CONF:5300)	<b>SHALL</b> be precise to day (CONF: CMS_0012)
CMS_0013	5.1.2	This patient <b>MAY</b> contain zero or one [0..1] <b>raceCode</b> , which <b>SHALL</b> be selected from ValueSet Race 2.16.840.1.113883.1.11.14 914 <b>DYNAMIC</b> (CONF:5322).	This patient <b>SHALL</b> contain exactly one [1..1] <b>raceCode</b> , which <b>SHALL</b> be selected from ValueSet Race 2.16.840.1.114222.4.11.83 6 <b>DYNAMIC</b> (CONF: CMS_0013)
CMS_0014	5.1.2	This patient <b>MAY</b> contain zero or more [0..*] <b>sdtc:raceCode</b> , where the @code <b>SHALL</b> be selected from ValueSet Race Value Set 2.16.840.1.113883.1.11.14 914 <b>DYNAMIC</b> (CONF:7263).	This patient <b>MAY</b> contain zero or more [0..*] <b>sdtc:raceCode</b> , where the @code <b>SHALL</b> be selected from ValueSet Race 2.16.840.1.114222.4.11.83 6 <b>DYNAMIC</b> (CONF: CMS_0014).
CMS_0015	5.1.2	This patient <b>MAY</b> contain zero or one [0..1] <b>ethnicGroupCode</b> , which <b>SHALL</b> be selected from ValueSet EthnicityGroup 2.16.840.1.114222.4.11.83 7 <b>DYNAMIC</b> (CONF:5323).	This patient <b>SHALL</b> contain exactly one [1..1] <b>ethnicGroupCode</b> , which <b>SHALL</b> be selected from ValueSet Ethnicity Group 2.16.840.1.114222.4.11.83 7 <b>DYNAMIC</b> (CONF: CMS_0015).
CMS_0016	5.1.3	This <b>representedCustodianOrganization</b> <b>SHOULD</b> contain zero or one [0..1] <b>id</b> (CONF:26958) such that it	This <b>representedCustodianOrganization</b> <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF:CMS_0016) such that it  (Applicable only for HQR)

CONF. #	Section	Base Standard	Changed To
CMS_0017	5.1.4	<b>MAY</b> contain zero or one [0..1] <code>documentationOf</code> (CONF:16579)	<b>SHALL</b> contain exactly one [1..1] <code>documentationOf</code> (CONF: CMS_0017)
CMS_0018	5.1.4	This assignedEntity <b>SHOULD</b> contain exactly at least one [0..1] <code>id</code> (CONF:16587) such that it	This assignedEntity <b>SHALL</b> contain exactly one [1..1] <code>id</code> (CONF:CMS_0018) such that it
CMS_0019 CMS_0020	5.1.4	n/a	This assignedEntity <b>MAY</b> contain zero or one [0..1] <code>assignedPerson</code> (CONF:CMS_0019)  This assignedPerson <b>MAY</b> contain zero or one [0..1] <code>name</code> (CONF:CMS_0020)
CMS_0021	5.1.4	This representedOrganization <b>SHOULD</b> contain zero or one [0..1] <code>id</code> (CONF:16592) such that it	This representedOrganization <b>SHALL</b> contain exactly one [1..1] <code>id</code> (CONF: CMS_0021) such that it
CMS_0022	5.1.4	n/a	This representedOrganization <b>MAY</b> contain zero or one [0..1] <code>name</code> (CMS_0022)
CMS_0023	5.1.5	<b>MAY</b> contain zero or more [0..*] <code>informationRecipient</code> (CONF:16703).	<b>SHALL</b> contain exactly one [1..1] <code>informationRecipient</code> (CONF: CMS_0023).
CMS_0024	5.1.5	This intendedRecipient <b>SHALL</b> contain at least one [1..*] <code>id</code> (CONF:16705) such that	This intendedRecipient <b>SHALL</b> contain exactly one [1..1] <code>id</code> (CONF: CMS_0024) such that
CMS_0025 CMS_0026	5.1.4	n/a	This intendedRecipient <b>SHALL</b> contain exactly one [1..1] <code>id</code> (CONF: CMS_0025) such that <ul style="list-style-type: none"> <li>It <b>SHALL</b> contain exactly one [1..1] <code>@root='2.16.840.1.113.883.3.249.7'</code> (CONF: CMS_0026)</li> </ul> It <b>SHALL</b> contain exactly one [1..1] <code>@extension</code> , the value of <code>@extension</code> is CMS Program Name (CONF: CMS_0025).
CMS_0027	5.2.2	n/a	<b>SHALL</b> be precise to day (CONF:CMS_0027)
CMS_0028	5.2.2	n/a	<b>SHALL</b> be precise to day (CONF:CMS_0028)
CMS_0029	5.2.3	<b>SHOULD</b> contain zero or more [0..*] <code>entry</code> (CONF:12833)	<b>SHALL</b> contain at least one [1..*] <code>entry</code> (CONF: CMS_0029)

## 10.1 Program Specific Constraints

This table lists program specific constraints made to QRDA-I in Part A of this guide.

**Table 39: Program Specific Constraints to QRDA-I**

CONF. #	Section	Data Element/ Section	Description
16858	5.1.2	Medicare HIC Number	This data element is required for Pioneer ACO. This data element is required for PQRS and HQR, if the payer is Medicare.
CMS_0016	5.1.3	CMS Certification Number (CCN)	This data element is required for HQR only.
CMS_0017	5.1.4	National Provider Identification (NPI) Number	This data element is optional for GPROs and HQR by setting <id @root='2.16.840.1.113883.4.6' @nullFlavor='NA'/>.
CMS_0018 CMS_0019	5.1.4	Provider Name (Given and Family)	This data element is optional for Pioneer ACO and for HQR.
CMS_0021	5.1.4	Tax Identification Number (TIN)	This data element is optional for HQR.
CMS_0022	5.1.4	Clinic Name	This data element is optional for Pioneer ACO and for HQR.

## 10.2 Validation Rules for EP

The format of Medicare Health Insurance Claim (HIC) numbers shall meet the following requirements. (Note: this specified format validation rule is for EP only.)

- (a) No embedded dashes or spaces.
- (b) Must be alphanumeric.
- (c) Alpha characters must be upper case.
- (d) Length can't be > 12 or < 7.
- (e) If alphanumeric, all numbers cannot be 9s.
- (f) If length 7: must be 1 alpha + 6 numeric.
- (g) If length 8: must be 2 alpha + 6 numeric.
- (h) If length 9: must be 3 alpha + 6 numeric.
- (i) If length 10: can either be 1 alpha + 9 numeric, or 9 numeric + 1 alpha.
- (j) If length 11: must be 2 alpha + 9 numeric, or 9 numeric + 1 alpha + 1 numeric, or 9 numeric + 2 alpha.
- (k) If length 12: must be 3 alpha + 9 numeric.

## 11. QRDA-III DSTU R1 Supplemental Implementation Guide Changes to Base Standard

This table lists all changes made to QRDA-III for Part B of this 2015 guide. The "Base Standard" is the *HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture, Category III, DSTU Release 1, (US Realm), Draft Standard for Trial Use—November 2012*, and its 2014 errata update.

**Table 40: Changes Made to the QRDA-III Base Standard**

CONF. #	Section	Base Standard	Changed To
711280	8.1	n/a	<b>SHALL</b> contain exactly one [1..1] <b>templateId</b> (CONF:711280) such that it
711281	8.1	n/a	<b>SHALL</b> contain exactly one [1..1] <b>@root="2.16.840.1.113883.10.20.27.1.2"</b> (CONF:711281).
711174 / 711246	8.1	<b>SHALL</b> contain exactly one [1..1] <b>confidentialityCode</b> , which <b>SHOULD</b> be selected from ValueSet HL7 BasicConfidentialityKind 2.16.840.1.113883.1.11.169 26 <b>STATIC</b> 2010-04-21 (CONF:17238).	<b>SHALL</b> contain exactly one [1..1] <b>confidentialityCode</b> (CONF:711174).  This confidentialityCode <b>SHALL</b> contain exactly one [1..1] <b>@code="N"</b> Normal (CodeSystem: ConfidentialityCode 2.16.840.1.113883.5.25 <b>STATIC</b> ) (CONF:711246).
711247	8.1	This languageCode <b>SHALL</b> contain exactly one [1..1] <b>@code</b> , which <b>SHALL</b> be selected from ValueSet Language 2.16.840.1.113883.1.11.115 26 <b>DYNAMIC</b> (CONF:19669).	This languageCode <b>SHALL</b> contain exactly one [1..1] <b>@code="en"</b> English (CodeSystem: Language 2.16.840.1.113883.6.121) (CONF:711247).
711240	8.1.2	n/a	This assignedAuthor <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF:711240).
711158	8.1.4	n/a	<b>SHALL</b> contain exactly one [1..1] <b>informationRecipient</b> (CONF:711158).
711159	8.1.4	n/a	This informationRecipient <b>SHALL</b> contain exactly one [1..1] <b>intendedRecipient</b> (CONF:711159).
711160	8.1.4	n/a	This intendedRecipient <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF:711160).

CONF. #	Section	Base Standard	Changed To
711161	8.1.4	n/a	The id/@root specifies that this identifier represents a CMS Program.  This id <b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.3.249.7" CMS Program (CONF:711161).
711162	8.1.4	n/a	The id/@extension contains the CMS Program the report is being submitted to.  This id <b>SHALL</b> contain exactly one [1..1] @extension, which <b>SHALL</b> be selected from ValueSet <a href="#">CMS Program Name</a> 2.16.840.1.113883.3.249.14.101 <b>STATIC</b> (CONF:711162).
7111248	8.1.4	n/a	If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="CPC", then ClinicalDocument/participant/@typeCode="LOC" <b>SHALL</b> be present (CONF:711248).
17225	8.1.5	<b>SHALL</b> contain exactly one [1..1] legalAuthenticator (CONF:17225).	<b>SHALL</b> contain exactly one [1..1] legalAuthenticator (CONF:17225). Note: If a Data Submission Vendor (DSV) is used, the DSV is the legalAuthenticator.
18167	8.1.5	This legalAuthenticator <b>SHALL</b> contain exactly one [1..1] time (CONF:18167).	This legalAuthenticator <b>SHALL</b> contain exactly one [1..1] time (CONF:18167). Note: This value is when the document was signed.
19670	8.1.5	This legalAuthenticator <b>SHALL</b> contain exactly one [1..1] assignedEntity (CONF:19670).	When the legalAuthenticator is a DSV, the representedOrganization/id is the DSV TIN.  The representedOrganization, if present, <b>SHALL</b> contain at least one [1..*] id (CONF:19670).
711150	8.1.7	n/a	<b>MAY</b> contain zero or one [0..1] participant (CONF:711150) such that it

CONF. #	Section	Base Standard	Changed To
711151	8.1.7	n/a	<b>SHALL</b> contain exactly one [1..1] <code>@typeCode="LOC"</code> Location (CodeSystem: HL7ParticipationType 2.16.840.1.113883.5.90) (CONF:711151).
711152	8.1.7	n/a	<b>SHALL</b> contain exactly one [1..1] <code>associatedEntity</code> (CONF:711152).
711153	8.1.7	n/a	This <code>associatedEntity</code> <b>SHALL</b> contain exactly one [1..1] <code>@classCode="SDLOC"</code> Service Delivery Location (CodeSystem: RoleClass 2.16.840.1.113883.5.110) (CONF:711153).
711154	8.1.7	n/a	This <code>associatedEntity</code> <b>SHALL</b> contain exactly one [1..1] <code>id</code> (CONF:711154).
711155	8.1.7	n/a	This <code>id</code> <b>SHALL</b> contain exactly one [1..1] <code>@root="2.16.840.1.113883.3.249.5.1"</code> CPC Practice Site (CONF:711155).
711156	8.1.7	n/a	This <code>id</code> <b>SHALL</b> contain exactly one [1..1] <code>@extension</code> (CONF:711156). Note: This is the CPC Practice Site ID assigned to the CPC Practice Site.
711218	8.1.7	n/a	This <code>associatedEntity</code> <b>SHALL</b> contain exactly one [1..1] <code>code</code> (CONF:711218).
711219	8.1.7	n/a	This <code>code</code> <b>SHALL</b> contain exactly one [1..1] <code>@code="394730007"</code> Healthcare Related Organization (CodeSystem: SNOMED CT 2.16.840.1.113883.6.96) (CONF:711219).
711157	8.1.7	n/a	This <code>associatedEntity</code> <b>SHALL</b> contain exactly one [1..1] <code>addr</code> (CONF:711157).
7111214	8.1.8	<b>MAY</b> contain zero or one [0..1] <code>documentationOf</code> (CONF:18170).	<b>SHALL</b> contain exactly one [1..1] <code>documentationOf</code> (CONF:711214).

CONF. #	Section	Base Standard	Changed To
711220	8.1.8	This serviceEvent <b>SHALL</b> contain at least one [1..*] performer (CONF:18173).	This serviceEvent <b>SHALL</b> contain at least one [1..*] performer (CONF:711220). Note: All providers seeking credit for CMS program reporting are listed as performers. For CPC reporting, only CPC Practice Site providers are listed as performers.
711167	8.1.8	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 <b>SHALL</b> contain exactly one [1..1] id (CONF:18177) such that it	The assignedEntity id/@root =' 2.16.840.1.113883.4.6' coupled with the id/@extension represents the individual provider's National Provider Identification number (NPI). NPI is required except for the Group Practice Reporting Option (GPRO). For GPRO, id/@root=' 2.16.840.1.113883.4.6' is coupled with @nullFlavor="NA", and @extension shall be omitted.  This assignedEntity <b>SHALL</b> contain exactly one [1..1] id (CONF:711167) such that it
711249	8.1.8	n/a	<b>MAY</b> contain zero or one [0..1] @nullFlavor="NA" (CONF:711249). Note: @nullFlavor is only present for PQRS GPRO reporting.
711169	8.1.8	<b>MAY</b> contain zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider ID (CONF:18178).	<b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.4.6" National Provider ID (CONF:711169). Note: This value specifies that the id is the provider's National Provider Identifier (NPI).
711170	8.1.8	<b>MAY</b> contain zero or one [0..1] @extension (CONF:18247).	<b>SHALL</b> contain exactly one [1..1] @extension (CONF:711170). Note: This is the provider's NPI, it is only present when this is not PQRS GPRO reporting.
711168	8.1.8	This representedOrganization <b>MAY</b> contain zero or one [0..1] id (CONF:18181) such that it	This representedOrganization <b>SHALL</b> contain exactly one [1..1] id (CONF:711168) such that it
711171	8.1.8	<b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.4.2" Tax ID Number (CONF:18182).	<b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.4.2" Tax ID Number (CONF:711171). Note: This value specifies that this id is the organization's Tax Identification Number (TIN).

CONF. #	Section	Base Standard	Changed To
711172	8.1.8	<b>SHALL</b> contain exactly one [1..1] @extension (CONF:18190).	<b>SHALL</b> contain exactly one [1..1] @extension (CONF:711172).
711141	8.1.10	<b>SHALL</b> contain exactly one [1..1] <b>QRDA Category III Reporting Parameters Section</b> (templateId:2.16.840.1.113.883.10.20.27.2.2) (CONF:17282).	<b>SHALL</b> contain exactly one [1..1] <u><a href="#">QRDA Category III Reporting Parameters Section (CMS EP)</a></u> (templateId:2.16.840.1.113.883.10.20.27.2.6) (CONF:711141).
711142	8.1.10	<b>SHALL</b> contain exactly one [1..1] <b>QRDA Category III Measure Section</b> (templateId:2.16.840.1.113.883.10.20.27.2.1) (CONF:17301).	<b>SHALL</b> contain exactly one [1..1] <u><a href="#">QRDA Category III Measure Section (CMS EP)</a></u> (templateId:2.16.840.1.113.883.10.20.27.2.3) (CONF:711142).
711276	8.2.1	n/a	<b>SHALL</b> contain exactly one [1..1] templateId (CONF:711276) such that it
711277	8.2.1	n/a	<b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.2.3" (CONF:711277).
711283	8.2.1	n/a	<b>SHALL</b> contain at least one [1..*] entry (CONF:711283) such that it
711284	8.2.1	n/a	<b>SHALL</b> contain exactly one [1..1] <u><a href="#">Measure Reference and Results (CMS EP)</a></u> (templateId:2.16.840.1.113.883.10.20.27.3.17) (CONF:711284).
711278	8.2.2	n/a	<b>SHALL</b> contain exactly one [1..1] templateId (CONF:711278) such that it
711279	8.2.2	n/a	<b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.2.6" (CONF:711279).
711285	8.2.2	n/a	<b>SHALL</b> contain exactly one [1..1] entry (CONF:711285) such that it
711286	8.2.2	n/a	<b>SHALL</b> contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType 2.16.840.1.113883.5.1002 <b>STATIC</b> ) (CONF:711286).

CONF. #	Section	Base Standard	Changed To
711175	8.2.2	n/a	<b>SHALL</b> contain exactly one [1..1] <a href="#">Reporting Parameters Act (CMS EP)</a> (templateId:2.16.840.1.113883.10.20.27.3.23) (CONF:711175).
711262	8.3.1	n/a	<b>SHALL</b> contain exactly one [1..1] <b>templateId</b> (CONF:711262) such that it
711263	8.3.1	n/a	<b>SHALL</b> contain exactly one [1..1] <b>@root="2.16.840.1.113883.10.20.27.3.24"</b> (CONF:711263).
711244	8.3.1	n/a	<b>SHALL</b> contain exactly one [1..1] <b>statusCode</b> (CONF:711244).
711245	8.3.1	n/a	This <b>statusCode</b> <b>SHALL</b> contain exactly one [1..1] <b>@code="completed"</b> Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14) (CONF:711245).
711264	8.3.2	n/a	<b>SHALL</b> contain exactly one [1..1] <b>templateId</b> (CONF:711264) such that it
711265	8.3.2	n/a	<b>SHALL</b> contain exactly one [1..1] <b>@root="2.16.840.1.113883.10.20.27.3.26"</b> (CONF:711265).
711243	8.3.2	If this continuous variable measure references an eMeasure, this code element <b>SHALL</b> equal the code element in that eMeasure's measure observation definition (CONF:18256).	This code element <b>SHALL</b> equal the code element in that eMeasure's measure observation definition (CONF:711243).
711241	8.3.2	n/a	<b>SHALL</b> contain exactly one [1..1] <b>statusCode</b> (CONF:711241).
711242	8.3.2	n/a	This <b>statusCode</b> <b>SHALL</b> contain exactly one [1..1] <b>@code="completed"</b> Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14) (CONF:711242).
711205	8.3.2	This externalObservation <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF:18245).  If this reference is to an eMeasure, this <b>id</b> <b>SHALL</b> equal the <b>id</b> in that eMeasure's measure observation definition (CONF:18255).	This externalObservation <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF:711205). Note: This is the <b>id</b> in the eMeasure's measure observation definition.

CONF. #	Section	Base Standard	Changed To
711253	8.3.3	n/a	<b>SHALL</b> contain exactly one [1..1] <code>templateId</code> (CONF:711253) such that it
711254	8.3.3	n/a	<b>SHALL</b> contain exactly one [1..1] <code>@root="2.16.840.1.113883.10.20.27.3.22"</code> (CONF:711254).
711201	8.3.3	<b>SHALL</b> contain exactly one [1..1] <b>Aggregate Count</b> ( <code>templateId:2.16.840.1.113883.10.20.27.3.3</code> ) (CONF:18123).	<b>SHALL</b> contain exactly one [1..1] <u><a href="#">Aggregate Count (CMS EP)</a></u> ( <code>templateId:2.16.840.1.113883.10.20.27.3.24</code> ) (CONF:711201).
711266	8.3.4	n/a	<b>SHALL</b> contain exactly one [1..1] <code>templateId</code> (CONF:711266) such that it
711267	8.3.4	n/a	<b>SHALL</b> contain exactly one [1..1] <code>@root="2.16.840.1.113883.10.20.27.3.16"</code> (CONF:711267).
711198	8.3.4	<b>SHALL</b> contain exactly one [1..1] <b>Aggregate Count</b> ( <code>templateId:2.16.840.1.113883.10.20.27.3.3</code> ) (CONF:17620).	<b>SHALL</b> contain exactly one [1..1] <u><a href="#">Aggregate Count (CMS EP)</a></u> ( <code>templateId:2.16.840.1.113883.10.20.27.3.24</code> ) (CONF:711198).
711180	8.3.4	<b>SHALL</b> contain exactly one [1..1] <b>Reporting Stratum</b> ( <code>templateId:2.16.840.1.113883.10.20.27.3.4</code> ) (CONF:17920).	<b>SHALL</b> contain exactly one [1..1] <u><a href="#">Reporting Stratum (CMS EP)</a></u> ( <code>templateId:2.16.840.1.113883.10.20.27.3.20</code> ) (CONF:711180).
711190	8.3.4	<b>MAY</b> contain zero or more [0..*] <code>entryRelationship</code> (CONF:18136) such that it	<b>SHALL</b> contain at least one [1..*] <code>entryRelationship</code> (CONF:711190) such that it
711181	8.3.4	<b>SHALL</b> contain exactly one [1..1] <b>Sex Supplemental Data Element</b> ( <code>templateId:2.16.840.1.113883.10.20.27.3.6</code> ) (CONF:18138).	<b>SHALL</b> contain exactly one [1..1] <u><a href="#">Sex Supplemental Data Element (CMS EP)</a></u> ( <code>templateId:2.16.840.1.113883.10.20.27.3.21</code> ) (CONF:711181).
711191	8.3.4	<b>MAY</b> contain zero or more [0..*] <code>entryRelationship</code> (CONF:18139) such that it	<b>SHALL</b> contain at least one [1..*] <code>entryRelationship</code> (CONF:711191) such that it
711182	8.3.4	<b>SHALL</b> contain exactly one [1..1] <b>Ethnicity Supplemental Data Element</b> ( <code>templateId:2.16.840.1.113883.10.20.27.3.7</code> ) (CONF:18149).	<b>SHALL</b> contain exactly one [1..1] <u><a href="#">Ethnicity Supplemental Data Element (CMS EP)</a></u> ( <code>templateId:2.16.840.1.113883.10.20.27.3.22</code> ) (CONF:711182).

CONF. #	Section	Base Standard	Changed To
711192	8.3.4	<b>MAY</b> contain zero or more [0..*] <b>entryRelationship</b> (CONF:18140) such that it	<b>SHALL</b> contain at least one [1..*] <b>entryRelationship</b> (CONF:711192) such that it
711183	8.3.4	<b>SHALL</b> contain exactly one [1..1] <b>Race Supplemental Data Element</b> (templateId:2.16.840.1.113.883.10.20.27.3.8) (CONF:18150).	<b>SHALL</b> contain exactly one [1..1] <b><u>Race Supplemental Data Element (CMS EP)</u></b> (templateId:2.16.840.1.113.883.10.20.27.3.19) (CONF:711183).
711193	8.3.4	<b>MAY</b> contain zero or more [0..*] <b>entryRelationship</b> (CONF:18141) such that it	<b>SHALL</b> contain at least one [1..*] <b>entryRelationship</b> (CONF:711193) such that it
711184	8.3.4	<b>SHALL</b> contain exactly one [1..1] <b>Payer Supplemental Data Element</b> (templateId:2.16.840.1.113.883.10.20.27.3.9) (CONF:18151).	<b>SHALL</b> contain exactly one [1..1] <b><u>Payer Supplemental Data Element (CMS EP)</u></b> (templateId:2.16.840.1.113.883.10.20.27.3.18) (CONF:711184).
711212	8.3.4	<b>SHALL</b> contain exactly one [1..1] <b>Continuous Variable Measure Value</b> (templateId:2.16.840.1.113.883.10.20.27.3.2) (CONF:18153).	<b>SHALL</b> contain exactly one [1..1] <b><u>Continuous Variable Measure Value (CMS EP)</u></b> (templateId:2.16.840.1.113.883.10.20.27.3.26) (CONF:711212).
711233	8.3.4	This externalObservation <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF:18241).  If this reference is to an eMeasure, this <b>id</b> <b>SHALL</b> equal the <b>id</b> defined in the corresponding eMeasure population criteria section (CONF:18258).	This externalObservation <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF:711233).  Note: This is the <b>id</b> defined in the corresponding eMeasure population criteria section.
711268	8.3.5	n/a	<b>SHALL</b> contain exactly one [1..1] <b>templateId</b> (CONF:711268) such that it
711269	8.3.5	n/a	<b>SHALL</b> contain exactly one [1..1] <b>@root="2.16.840.1.113883.10.20.27.3.17"</b> (CONF:711269).
711213	8.3.5	<b>SHALL</b> contain exactly one [1..1] <b>Performance Rate for Proportion Measure</b> (templateId:2.16.840.1.113.883.10.20.27.3.14) (CONF:17904).	<b>SHALL</b> contain exactly one [1..1] <b><u>Performance Rate for Proportion Measure (CMS EP)</u></b> (templateId:2.16.840.1.113.883.10.20.27.3.25) (CONF:711213).
18428	8.3.5	<b>SHALL</b> contain exactly one [1..1] <b>Measure Data</b> (templateId:2.16.840.1.113.883.10.20.27.3.5) (CONF:18426).	<b>SHALL</b> contain exactly one [1..1] <b><u>Measure Data (CMS EP)</u></b> (templateId:2.16.840.1.113.883.10.20.27.3.16) (CONF:18428).

CONF. #	Section	Base Standard	Changed To
711270	8.3.6	n/a	<b>SHALL</b> contain exactly one [1..1] <code>templateId</code> (CONF:711270) such that it
711270	8.3.6	n/a	<b>SHALL</b> contain exactly one [1..1] <code>@root="2.16.840.1.113883.10.20.27.3.18"</code> (CONF:711271).
7111230	8.3.6	n/a	This value <b>SHALL</b> contain exactly one [1..1] <code>translation</code> (CONF:711230).
711231	8.3.6	n/a	This translation <b>SHALL</b> contain exactly one [1..1] <code>@code</code> , which <b>SHALL</b> be selected from ValueSet <a href="#">CMS Payer Groupings 2.16.840.1.113883.3.249.14.102</a> (CONF:711231).
711229	8.3.6	n/a	This value <b>SHALL</b> contain exactly one [1..1] <code>@nullFlavor="OTH"</code> (CONF:711229).
711199	8.3.6	<b>SHALL</b> contain exactly one [1..1] <code>Aggregate Count</code> ( <code>templateId:2.16.840.1.113883.10.20.27.3.3</code> ) (CONF:18111).	<b>SHALL</b> contain exactly one [1..1] <a href="#">Aggregate Count (CMS EP)</a> ( <code>templateId:2.16.840.1.113883.10.20.27.3.24</code> ) (CONF:711199).
711255	8.3.7	n/a	<b>SHALL</b> contain exactly one [1..1] <code>templateId</code> (CONF:711255) such that it
711256	8.3.7	n/a	<b>SHALL</b> contain exactly one [1..1] <code>@root="2.16.840.1.113883.10.20.27.3.25"</code> (CONF:711256).
711203	8.3.7	<b>MAY</b> contain zero or one [0..1] <code>reference</code> (CONF:19651).	<b>SHALL</b> contain exactly one [1..1] <code>reference</code> (CONF:711203).
711204	8.3.7	The <code>externalObservationID</code> contains the ID of the numerator in the referenced eMeasure.  This externalObservation <b>SHALL</b> contain exactly one [1..1] <code>id</code> (CONF:19655).	This externalObservation <b>SHALL</b> contain exactly one [1..1] <code>id</code> (CONF:711204).
711257	8.3.8	n/a	<b>SHALL</b> contain exactly one [1..1] <code>templateId</code> (CONF:711257) such that it
711258	8.3.8	n/a	<b>SHALL</b> contain exactly one [1..1] <code>@root="2.16.840.1.113883.10.20.27.3.19"</code> (CONF:711258).

CONF. #	Section	Base Standard	Changed To
711200	8.3.8	<b>SHALL</b> contain exactly one [1..1] <b>Aggregate Count</b> (templateId:2.16.840.1.113883.10.20.27.3.3) (CONF:18117).	<b>SHALL</b> contain exactly one [1..1] <u><b>Aggregate Count (CMS EP)</b></u> (templateId:2.16.840.1.113883.10.20.27.3.24) (CONF:711200).
711272	8.3.9	n/a	<b>SHALL</b> contain exactly one [1..1] <b>templateId</b> (CONF:711272) such that it
711273	8.3.9	n/a	<b>SHALL</b> contain exactly one [1..1] <b>@root="2.16.840.1.113883.10.20.27.3.23"</b> (CONF:711273).
711288	8.3.9	n/a	<b>SHALL</b> be precise to day (CONF:711288).
711289	8.3.9	n/a	<b>SHALL</b> be precise to day (CONF:711289).
711274	8.3.10	n/a	<b>SHALL</b> contain exactly one [1..1] <b>templateId</b> (CONF:711274) such that it
711275	8.3.10	n/a	<b>SHALL</b> contain exactly one [1..1] <b>@root="2.16.840.1.113883.10.20.27.3.20"</b> (CONF:711275).
711232	8.3.10	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 <b>SHALL</b> 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 <b>SHALL</b> be the same as the contents of the observation/code element in the referenced eMeasure (e.g., 2112-8 'Birth date') (CONF:711232).
711197	8.3.10	<b>SHALL</b> contain exactly one [1..1] <b>Aggregate Count</b> (templateId:2.16.840.1.113883.10.20.27.3.3) (CONF:17584).	<b>SHALL</b> contain exactly one [1..1] <u><b>Aggregate Count (CMS EP)</b></u> (templateId:2.16.840.1.113883.10.20.27.3.24) (CONF:711197).
711211	8.3.10	<b>SHALL</b> contain exactly one [1..1] <b>Continuous Variable Measure Value</b> (templateId:2.16.840.1.113883.10.20.27.3.2) (CONF:19513).	<b>SHALL</b> contain exactly one [1..1] <u><b>Continuous Variable Measure Value (CMS EP)</b></u> (templateId:2.16.840.1.113883.10.20.27.3.26) (CONF:711211).

CONF. #	Section	Base Standard	Changed To
711210	8.3.10	<p>If this reference is to an eMeasure, this id equals the referenced stratification id defined in the eMeasure.</p> <p>This externalObservation <b>SHALL</b> contain exactly one [1..1] id (CONF:18207).</p>	<p>This externalObservation <b>SHALL</b> contain exactly one [1..1] id (CONF:711210).                      Note: This is the ID of the stratum in the referenced eMeasure.</p>
711259	8.3.11	n/a	<b>SHALL</b> contain exactly one [1..1] <b>templateId</b> (CONF:711259) such that it
711260	8.3.11	n/a	<b>SHALL</b> contain exactly one [1..1] <b>@root="2.16.840.1.113883.10.20.27.3.21"</b> (CONF:711260).
711261	8.3.11	n/a	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).
711202	8.3.11	<p><b>SHALL</b> contain exactly one [1..1] <b>Aggregate Count</b> (templateId:2.16.840.1.113883.10.20.27.3.3) (CONF:18129).</p>	<p><b>SHALL</b> contain exactly one [1..1] <b><u>Aggregate Count (CMS EP)</u></b> (templateId:2.16.840.1.113883.10.20.27.3.24) (CONF:711202).</p>

## 12. Change Log for 2015 CMS QRDA Supplementary Implementation Guide from the 2014 CMS QRDA-I and CMS QRDA-III Guides

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This appendix summarizes the changes made in this 2015 combined QRDA Supplementary Implementation Guide since the release of the three 2014 CMS QRDA implementation guides: *Hospital Quality Reporting (HQR) Quality Reporting Document Architecture Category I, Release 2, Supplementary Implementation Guide, Version 2.2 (4/21/2014)*, *CMS Eligible Professional Programs Quality Reporting Document Architecture Category I, DSTU Release 2, Supplementary Implementation Guide for 2014, Version 4.0 (4/18/2014)*, and the *CMS Eligible Professional Programs Quality Reporting Document Architecture Category III, Release 1, Implementation Guide for 2014, Version 2.0 (4/18/2014)*.

### 12.1 General Changes

- Combined the three 2014 CMS QRDA implementation guides into one single document.
- Harmonized the two QRDA-I guides for the EP programs and HQR and specified them as a single supplementary implementation guide in Part A.
- Updated applicable conformance statements to reflect the HL7 2014 errata updates to the QRDA-I, R2 and QRDA-III, R1 base standards.
- Added example figures to the QRDA-I supplementary implementation guide.
- Removed entry-level templates from the QRDA-I supplementary implementation guide. Implementers are referred to the base HL7 QRDA-I standard for their specifications.
- Added appendix to annotate the changes from base standards and from earlier guides.

### 12.2 Changes from 2014 QRDA-I HQR Implementation Guide

This table lists the changes made from the *Hospital Quality Reporting (HQR) Quality Reporting Document Architecture Category I, Release 2, Supplementary Implementation Guide, Version 2.2 (4/21/2014)* for this 2015 guide. The changes made as a result of the 2014 errata update to the HL7 QRDA-I, R2 standard are not listed here. Please refer to the change list contained in the 2014 HL7 QRDA-I, R2 errata update package for details.

**Table 41: Changes to 2014 QRDA-I HQR Implementation Guide**

CONF. #	Section	2014 HQR QRDA-I Guide	2015 QRDA-I Guide
CMS_0001 CMS_0002	5.1.1	n/a	<b>SHALL</b> contain exactly one [1..1] <code>templateId</code> (CONF:CMS_0001) such that it  SHALL contain exactly one [1..1] <code>@root="2.16.840.1.113883.10.20.24.1.3"</code> (CONF:CMS_0002).
CMS_0003 CMS_0004 CMS_0005 CMS_0006	5.1.1	This <code>associatedEntity</code> <b>SHOULD</b> contain zero or one [0..1] <code>id</code> (CONF-HR:18305-1) such that it: 1. <b>SHOULD</b> contain exactly one [1..1] <code>@root="2.16.840.1.113883.3.2074.1"</code> CMS EHR certification ID (CONF-HR:18305-1). 2. <b>SHOULD</b> contain exactly one [1..1] <code>@extension</code> CMS EHR certification ID such that it contains fifteen (15) alphanumeric characters (CONF-HR:18305-2).	<b>MAY</b> contain zero or more [0..*] <code>participant</code> (CONF:CMS_0003) such that it  <b>SHALL</b> contain exactly one [1..1] <code>associatedEntity</code> (CONF:CMS_0004)  This <code>associatedEntity</code> <b>MAY</b> contain zero or one [0..1] <code>id</code> (CONF:CMS_0005) such that it  <b>SHALL</b> contain exactly one [1..1] <code>@root='2.16.840.1.113883.3.3.2074.1'</code> CMS EHR Certification Number (formerly known as Office of the National Coordinator Certification Number) and the value of <code>@extension</code> is the Certification Number (CONF: CMS_0006).
16857 16858 CMS_0007	5.1.2	This <code>patientRole</code> <b>SHALL</b> contain exactly one [1..1] <code>id</code> (CONF-HR:16857-1) such that it: 1. <b>SHALL</b> contain exactly one [1..1] <code>@root</code> 2. The <code>@root</code> <b>SHOULD</b> contain zero or one [0..1] value equals to "2.16.840.1.113883.4.572" Medicare HIC number (CONF-HR:16858-1). <b>SHALL</b> contain exactly one [1..1] <code>@extension</code> Patient Id or Medicare HIC number (CONF-HR:16858-2)	This <code>patientRole</code> <b>SHOULD</b> contain zero or one [0..1] <code>id</code> (CONF:16857) such that it  <b>SHALL</b> contain exactly one [1..1] <code>@root='2.16.840.1.113883.4.572'</code> Medicare HIC number (CONF:16858)  This <code>patientRole</code> <b>SHALL</b> contain exactly one [1..1] <code>id</code> such that it  <b>SHALL</b> contain exactly one [1..1] Patient Identifier Number (CONF:CMS_0007)

CONF. #	Section	2014 HQR QRDA-I Guide	2015 QRDA-I Guide
16591 CMS_0021 16593	5.1.4	This representedOrganization <b>SHOULD</b> contain zero or one [0..1] id (CONF:HR:16592-1) such that it: 1. <b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.4.2" Tax ID Number (CONF:16593). 2. <b>SHALL</b> contain exactly one [1..1] @extension Tax ID Number (CONF:16594).	For the HQR, TIN is optional and SHOULD be submitted. If no TIN is submitted for HQR, id/@root='2.16.840.1.113883.4.2' is coupled with @nullFlavor="NA", and @extension SHALL be omitted.  This assignedEntity <b>SHALL</b> contain exactly one [1..1] representedOrganization (CONF:16591).  This representedOrganization <b>SHALL</b> contain exactly one [1..1] id (CONF:CMS_0021) such that it  <b>SHALL</b> contain exactly one [1..1] @root='2.16.840.1.13883.4.2' Tax ID Number (CONF:16593).
CMS_0023 16704 CMS_0024 CMS_0025 CMS_0026	5.1.5	n/a	<b>SHALL</b> contain exactly one [1..1] informationRecipient (CONF:CMS_0023).  The informationRecipient, if present, <b>SHALL</b> contain exactly one [1..1] intendedRecipient (CONF:16704).  This intendedRecipient <b>SHALL</b> contain exactly one [1..1] id (CONF:CMS_0024)  It <b>SHALL</b> contain exactly one [1..1] @root='2.16.840.1.113883.3.249.7' (CONF:CMS_0025)  It <b>SHALL</b> contain exactly one [1..1] @extension, the value of @extension is CMS Program Name, which <b>SHALL</b> be selected from ValueSet <a href="#">QRDA-I CMS Program Name</a> 2.16.840.1.113883.3.249.14.103 <b>STATIC</b> (CONF:CMS_0026).

## 12.3 Changes from 2014 QRDA-I EP Implementation Guide

This table lists the changes made from the *CMS Eligible Professional Programs Quality Reporting Document Architecture Category I, DSTU Release 2, Supplementary Implementation Guide for 2014, Version 4.0 (4/18/2014)* for this 2015 guide. The changes made as a result of the 2014 errata update to the HL7 QRDA-I, R2 standard are not listed here. Please refer to the change list contained in the 2014 HL7 QRDA-I, R2 errata update package for details.

**Table 42: Changes to 2014 QRDA-I EP Implementation Guide**

CONF. #	Section	2014 EP QRDA-I Guide	2015 QRDA-I Guide
7157	5.1.2	<b>SHALL</b> contain exactly one [1..1] <b>given</b> (CONF:7157_P01).	<b>SHALL</b> contain at least one [1..*] <b>given</b> (CONF:7157).
CMS_0026	5.1.5	It <b>SHALL</b> contain exactly one [1..1] <b>@extension</b> , the value of <b>@extension</b> is CMS Program Name (CONF:DECC_P0009).	It <b>SHALL</b> contain exactly one [1..1] <b>@extension</b> , the value of <b>@extension</b> is CMS Program Name, which <b>SHALL</b> be selected from ValueSet <a href="#">QRDA-I CMS Program Name</a> 2.16.840.1.113883.3.249.1 4.103 <b>STATIC</b> (CONF:CMS_0026).

## 12.4 Changes from 2014 QRDA-III EP Implementation Guide

This section lists the changes made from the *CMS Eligible Professional Programs Quality Reporting Document Architecture Category III, Release 1, Implementation Guide for 2014, Version 2.0 (4/18/2014)* for this 2015 guide. The changes made as a result of the 2014 errata update to the HL7 QRDA-III, R1 standard are not listed here. Please refer to the change list contained in the 2014 HL7 QRDA-III, R1 errata update package for details.

- Added language to the Succession Management section to highlight the importance of the CMS program name in the use of submission of succession management.
- Removed value set tables for value sets that are either maintained in the Value Set Authority Center (VSAC) or specified in the HL7 QRDA-III, R1 standard.
- Added language to specify that Performance Rate is required for CPC Program.
- Added language to specify that Performance Rate is required for PQRS Program.

## 13. Acronyms

This section describes acronyms used in this guide.

Acronym	Literal Translation
ACO	Accountable Care Organizations
CAH	Critical Access Hospitals
CCN	CMS Certification Number
CDA	Clinical Document Architecture
CMS	Centers for Medicare & Medicaid Services
CONF	conformance
CPC	Comprehensive Primary Care Initiative
CQM	Clinical Quality Measure
CQM	Clinical Quality Measure
DSTU	Draft Standard for Trial Use
DSV	Data Submission Vendor
eCQM	electronic Clinical Quality Measure
EHR	electronic health record
EP	Eligible Professional
FAP	Final Action Processing
GPRO	Group Practice Reporting Option
GUID	Globally Unique Identifier
HIC	Health Insurance Claim
HL7	Health Level Seven
HL7 V3	Health Level 7 Version 3
HQMF	Health Quality Measures Format
HQR	Hospital Quality Reporting
ID	identifier
IPP	initial patient population
IQR	Inpatient Quality Reporting
LOINC	Logical Observation Identifiers Names and Codes

Acronym	Literal Translation
MU	Meaningful Use
n/a	not applicable
NLM	National Library of Medicine
NPI	National Provider Identification Number
ONC	Office of the National Coordinator for Health Information Technology
PQRS	Physician Quality Reporting System
QDM	Quality Data Model
QRDA	Quality Reporting Data Architecture
QRDA-I	Quality Reporting Data Architecture Category I
QRDA-III	Quality Reporting Data Architecture Category III
TIN	Taxpayer Identification Number
UTC	Coordinated Universal Time
VSAC	Value Set Authority Center
XML	Extensible Markup Language

## 14. Glossary

Term	Definition
Electronic health record (EHR)	Electronic records of patient health information gathered and/or generated in any care delivery setting. This information includes patient demographics, progress notes, medications, vital signs, past medical history, immunizations, laboratory data, and radiology reports. This provides the ability to pass information from care point to care point providing the ability for quality health management by physicians.
eMeasure	A standardized performance measure in the Health Quality Measures Format (HQMF). CMS uses "eCQM" (electronic Clinical Quality Measure) for the eMeasures developed under the Meaningful Use program.
Physician Quality Reporting System (PQRS)	A quality reporting system that includes an incentive payment for eligible professionals who satisfactorily report data on quality measures for covered professional services provided during the specified program year.
XML Path Language (XPath)	This notation provides a mechanism that will be familiar to developers for identifying parts of an XML document. XPath syntax selects nodes from an XML document using a path containing the context of the node(s). The path is constructed from node names and attribute names (prefixed by an '@') and concatenated with a '/' symbol.

## 15. References

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2014 eCQM Specifications for Eligible Hospitals Update April 2014. CMS eCQM Library. [http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/eMeasures\\_EH\\_Hospital.zip](http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/eMeasures_EH_Hospital.zip)

2014 eCQM Specifications for Eligible Professionals Update June 2014. CMS eCQM Library. [http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/2014\\_eCQM\\_EligibleProfessional\\_June2014.zip](http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/2014_eCQM_EligibleProfessional_June2014.zip)

*CMS Eligible Professional Programs Quality Reporting Document Architecture Category I, DSTU Release 2, Supplementary Implementation Guide for 2014, Version 4.0 (4/18/2014).* [http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/QRDA\\_I\\_CMS\\_EP\\_2014\\_v40.zip](http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/QRDA_I_CMS_EP_2014_v40.zip)

*CMS Eligible Professional Programs Quality Reporting Document Architecture Category III, Release 1, Implementation Guide for 2014, Version 2.0 (4/18/2014).* [http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/QRDA\\_III\\_CMS\\_EP\\_2014\\_IG\\_Vol1.zip](http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/QRDA_III_CMS_EP_2014_IG_Vol1.zip)

CMS QRDA Implementation Guide for Eligible Hospital Clinical Quality Measures — *Hospital Quality Reporting (HQR) Quality Reporting Document Architecture Category I, Release 2, Supplementary Implementation Guide for 2014, Version 2.2 (4/21/2014).* [http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/QRDA\\_Guide2014\\_EH\\_CQM\\_Effective\\_July1.pdf](http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/QRDA_Guide2014_EH_CQM_Effective_July1.pdf)

CMS, eCQM Library. [http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/eCQM\\_Library.html](http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/eCQM_Library.html)

*HL7 Implementation Guide for CDA Release 2: Quality Report Document Architecture, Category I (QRDA), DSTU Release 2, (US Realm), (July 2012).* Includes updates to non-normative content for errata approved as of December 21, 2012. [http://www.hl7.org/documentcenter/public/standards/dstu/CDAR2\\_QRDA\\_DSTUR2\\_2012JUL.zip](http://www.hl7.org/documentcenter/public/standards/dstu/CDAR2_QRDA_DSTUR2_2012JUL.zip)

*HL7 Implementation Guide for CDA® Release 2: Quality Reporting Document Architecture, Category III (QRDA-III), DSTU Release 1 (2012).* [http://www.hl7.org/documentcenter/public/standards/dstu/CDAR2\\_QRDA\\_CATIII\\_DSTU\\_R1\\_2012NOV.zip](http://www.hl7.org/documentcenter/public/standards/dstu/CDAR2_QRDA_CATIII_DSTU_R1_2012NOV.zip)

ONC, Electronic Clinical Quality Measure issue reporting system. <http://oncprojecttracking.org/secure/Dashboard.jspa>

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