Centers for Medicare & Medicaid Services

CMS Implementation Guide for Quality Reporting Document Architecture Category III

Eligible Clinicians Programs

Implementation Guide for 2023

Version 1.0

7/21/2022

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1 Introduction

1.1 Overview

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

This QRDA guide contains the Centers for Medicare & Medicaid Services (CMS) supplemental implementation guide to the *HL7 CDA R2 Implmentation Guide: Quality Reporting Document Architecture(QRDA III), Release 1 – US Realm*[1] *(September, 2021)* for the 2023 performance period. This is a normative release approved by American National Standards Institute (ANSI) and HL7. This HL7 base standard is referred to as the HL7 QRDA III R1.

1.2 Organization of the Guide

This implementation guide contains the following chapters:

- Chapter 1: Introduction
- Chapter 2: Conformance Conventions Used in This Guide—describes the formal representation of templates and additional information necessary to understand and correctly implement the content found in this guide
- Chapter 3: Overview
- Chapter 4: QRDA Category III Submission Rules—includes guidelines for submissions under the Primary Care First (PCF) model and the Merit-Based Incentive Payment System (MIPS) Program
- Chapter 5: QRDA Category III Validation—contains the formal definitions for the QRDA Category III report for the CMS Eligible Clinicians Programs:
    - Document-level template that defines the document type and header constraints specific to CMS reporting
    - Section-level templates that define measure reporting and reporting parameters
    - Entry-level templates that define entry templates
- Chapter 6: 2023 Performance Period eCQM Specifications for Eligible Clinicians UUID List
- Chapter 7: Measure Identifiers

APPENDIX

- Chapters 8 -15 provide references, resources, and several change logs including a list of all changes made to the HL7 QRDA III R1 to produce this CMS Implementation Guide

[1] HL7 QRDA III R1. https://www.hl7.org/implement/standards/product_brief.cfm?product_id=286

2 Conformance Conventions Used in This Guide

2.1 Conformance Verbs (Keywords)

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

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

2.2 Cardinality

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

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

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

Figure 1: Constraints Format – only one allowed

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

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

Figure 2: Constraints Format – only one like this allowed

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

2.3 Null Flavor

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

Figure 3: nullFlavor Example

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

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

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

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

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

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

3 Overview

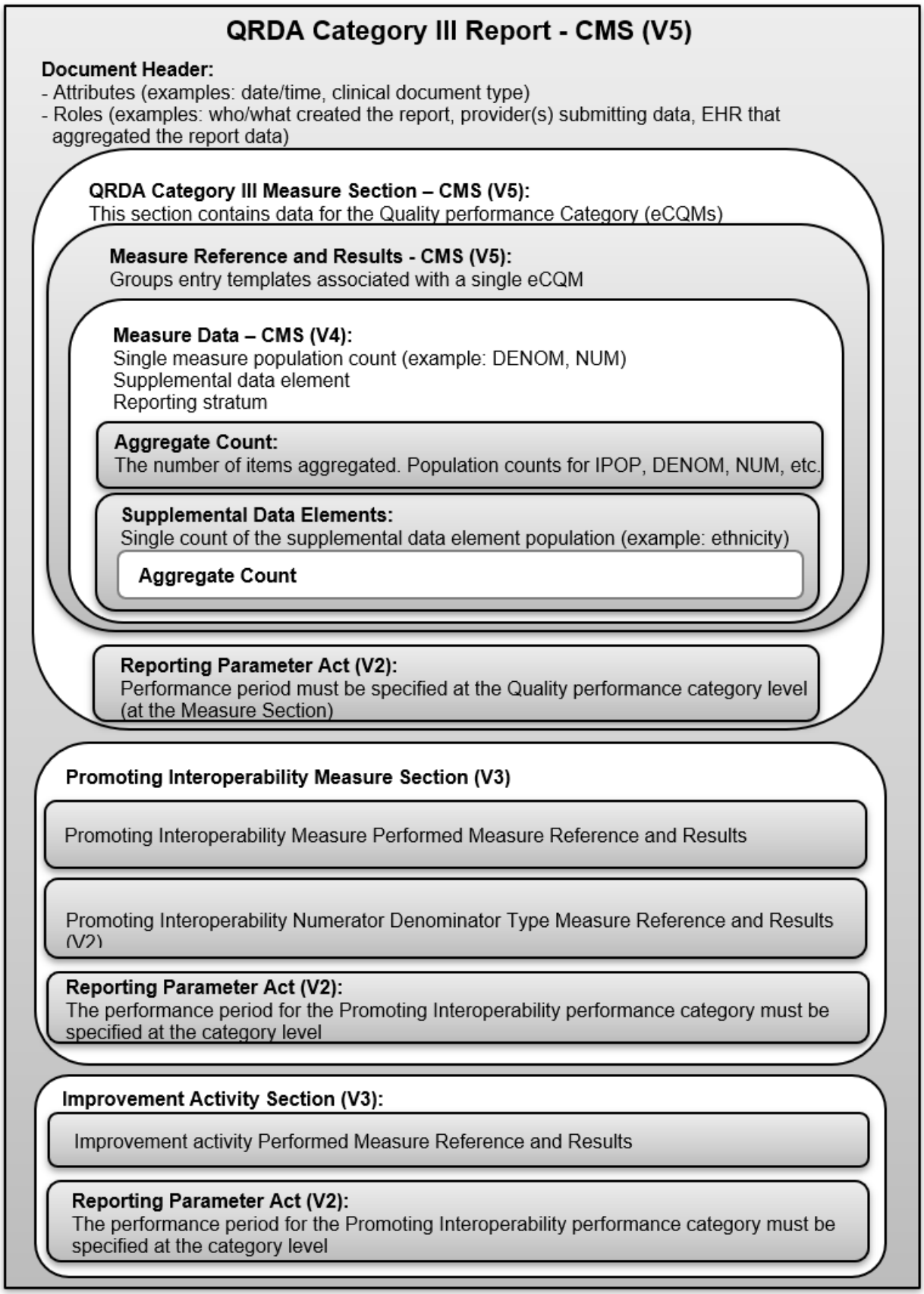
3.1 Background

This guide is a CMS Quality Reporting Document Architecture Category III (QRDA III) implementation guide to the HL7 QRDA III R1. Templates defined in this implementation guide are conformant with HL7 QRDA III R1. The CMS Eligible Clinicians Programs QRDA III templates address aggregate reporting requirements for:

- Primary Care First (PCF)
- Merit-Based Incentive Payment System (MIPS)
    - APM Performance Pathway (APP)

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

Figure 4: QRDA III Report Structure Example



3.2 How to Read This QRDA III Guide

This guide includes the formal template definitions and submission criteria for submitting QRDA III documents to the PCF model and MIPS program. Some of the conformance statements in the HL7 QRDA III R1 have been further constrained to meet the specific requirements from these CMS Eligible Clinicians programs. The "CMS_" prefix (e.g., CMS_1) indicates the new conformance statements. The "_C01" postfix indicates that the conformance statement from the base HL7 QRDA III R1 standard is further constrained in this guide.

This guide only lists the templates specifying CMS-specific reporting requirements from the base HL7 QRDA III R1 standard. For example, Payer Supplemental Data Element – CMS (V3) (`identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.18:2018-05-01`) conforms to Payer Supplemental Data Element (V2) template `(identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.9:2016-02-01)`. The Payer Supplemental Data Element – CMS (V3) template specifies the CMS-specific requirements that further constrain the parent Payer Supplemental Data Element (V2) template. The conformance statements from the parent Payer Supplemental Data Element (V2) template from HL7 QRDA III R1 are not repeated in this guide. Therefore, the base HL7 QRDA III R1 must be referenced in conjunction with this guide.

4 QRDA Category III Submission Rules

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

4.1 Primary Care First (PCF) Submissions

PCF practices must adopt health IT meeting the requirements published by the PCF model. This guide only provides information for QRDA III reporting of eCQMs for the PCF model. More information about health IT and other reporting requirements will be made available to PCF participants prior to the start of the performance year; please contact PCF Support with questions.

The PCF QRDA III file must contain the CMS EHR Certification ID. Nulls will not be allowed and only one CMS EHR Certification ID shall be submitted for PCF quality reporting. Full instructions on how to generate a CMS EHR Certification ID are in the CHPL Public User Guide, https://www.healthit.gov/sites/default/files/policy/chpl_public_user_guide.pdf.

Practices must report all measures at the PCF practice site level, which is identified by the PCF practice ID. PCF practice site-level reporting includes all patients (including all payers and the uninsured) who were seen one or more times at the practice site location during the performance year by one or more clinicians who were active on the PCF Practitioner Roster at any point during the performance year and who meet the criteria as specified in each measure.

Each PCF practice submitting QRDA III files for the 2023 performance period must provide the eCQMs required by the PCF model. If additional eCQMs are reported, they will be ignored.

Improvement Activity data **should not be submitted** in a PCF quality measure QRDA III submission file. Improvement Activity data are not required to be reported for PCF. If Improvement Activity data are submitted for PCF, they will be ignored. Promoting Interoperability data **shall not be submitted** in a PCF quality measure QRDA III submission file. If Promoting Interoperability data are submitted for PCF, PCF will reject the file. If you are submitting Promoting Interoperability or Improvement Activity data for MIPS, see 4.2 Merit-Based Incentive Payment System (MIPS) QRDA III Submissions for more information.

QRDA III submissions for PCF will use the 2023 Performance Period eCQM Specifications for Eligible Clinicians[2] provided in the eCQI Resource Center.

The performance period for the PCF model begins on January 1, 2023 and ends on December 31, 2023.

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

This section describes submission requirements for MIPS individual reporting, group reporting, virtual group reporting, and APM Entity reporting.

[2] eCQI Resource Center, Eligible Clinician eCQMs web page. https://ecqi.healthit.gov/eligible-professional/eligible-clinician-ecqms. Select 2023 Performance Period.

4.2.1 MIPS Individual, Group, and Virtual Group Reporting

MIPS QRDA III submissions for individual, group, and virtual group reporting must contain data for at least one of the following three MIPS performance categories: Quality, Promoting Interoperability, or Improvement Activities. The QRDA III XML format can be used for submissions made via file upload on qpp.cms.gov. Please refer to the Quality Payment Program website for Quality, Promoting Interoperability, and Improvement Activity scoring rules.

Under MIPS, a group is defined as a single Taxpayer Identification Number (TIN) with 2 or more clinicians (including at least one MIPS eligible clinician), as identified by their National Provider Identifiers (NPI), who have reassigned their Medicare billing rights to the TIN. If a MIPS eligible clinician bills Medicare Part B under multiple TINs, such MIPS eligible clinician is required to submit data for each TIN association that he/she exceeds the low-volume threshold as an individual (TIN associations participating in MIPS at the individual level). For TIN associations that are participating in MIPS as a group and exceed the low-volume threshold at the group level, such MIPS eligible clinician will have his/her data included as part of the TIN's aggregated data and group submission.

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

For 2023, MIPS eligible clinicians and groups are required to submit a full year of data for the Quality performance category, 90-days of data for Improvement Activities—unless otherwise specified within the activity, and 90-days of data for the Promoting Interoperability performance categories. For the MIPS eligible clinician participating as an individual, your eCQM populations include all patients (all-payer data) seen by the MIPS eligible clinician during the performance period. For group participation, eCQM populations include all patients (all-payer data). Data submission for both individual MIPS eligible clinicians and groups will occur prior to January 2, 2024, if technically feasible, through March 31, 2024 for the 2023 performance period.

For the 2023 performance period, a CMS EHR Certification ID is required for the Promoting Interoperability performance category. See 5.1.3 Participant (CMS EHR Certification ID) for details. CMS EHR Certification ID is optional for the MIPS Quality performance category.

4.2.2 MIPS APM Entity Reporting

MIPS QRDA III submissions for APM Entity reporting must contain data for at least one of the following two MIPS performance categories: Quality and Improvement Activities. The Promoting Interoperability performance category is not permissible at the APM Entity level. The QRDA III XML format can be used for submissions made via file upload on qpp.cms.gov. Please refer to the Quality Payment Program website for Quality and Improvement Activity scoring rules.

Under MIPS, an APM Entity group is defined as a group of eligible clinicians participating in an APM Entity, as identified by a combination of the APM identifier, APM Entity identifier, TIN, and NPI for each participating eligible clinician.

For 2023, MIPS APM Entity groups are required to submit a full year of data for the Quality performance category and 90-days of data for Improvement Activities—unless otherwise specified within the activity. eCQM populations include all patients (all-payer data). Data

submission for APM Entity groups will occur prior to January 2, 2024, if technically feasible, through March 31, 2024 for the 2023 performance period.

For the 2023 performance period, CMS EHR Certification ID is optional for the MIPS Quality performance category.

4.2.3 APM Performance Pathway (APP)

The APM Performance Pathway (APP) is a MIPS reporting and scoring pathway for MIPS eligible clinicians who are also participants in MIPS Alternative Payment Models (APMs). The APP is a single, pre-determined measure set that MIPS APM participants may report on at the individual, group, and/or APM Entity levels. It's designed to provide reliable and consistent MIPS reporting requirements to reduce reporting burden and encourage continued APM participation. The APP is optional for all MIPS APM participants; however, it is required for all Medicare Shared Savings Program (Shared Savings Program) ACOs.

QRDA III submissions for individuals, groups, or APM Entities reporting through the APP must contain data for the Quality performance category for the specific measures required by the APP. In addition, if submitting the APP at the Group or Individual level, a submission for PI containing the APP Program name is required for APP scoring. Improvement activities can be reported, but all MIPS APM participants who report through the APP will receive a full score for the Improvement Activities performance category.

4.3 Identifiers

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

- Alternative Payment Model (APM) Entity Identifier
  - Required for MIPS APM Entity reporting
  - Required for APP APM Entity reporting
  - For PCF, this is the PCF Practice Identifier assigned by PCF

- National Provider Identifier (NPI)
  - Required for MIPS individual reporting
  - Required for APP individual reporting
  - Not allowed for MIPS group reporting, MIPS virtual group reporting, MIPS APM Entity reporting, APP group reporting, or APP APM Entity reporting
  - Required for PCF reporting

- Tax Identification Number (TIN)
  - Required for MIPS group reporting and MIPS individual reporting
  - Required for APP group reporting and APP individual reporting
  - Not allowed for MIPS APM Entity reporting or APP APM Entity reporting
  - Required for PCF reporting

- Virtual Group Identifier
  - Required for MIPS virtual group reporting
  - Not allowed for MIPS individual reporting, MIPS group reporting, MIPS APM Entity reporting, APP individual reporting, APP group reporting, or APP APM Entity reporting

4.4 Succession Management

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

4.4.1 Final Action Processing Used in Succession Management

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

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

4.4.2 Final Action Processing Rules for MIPS

For group reporting (except for the PCF model), the Final Action Processing rules include the combination of the CMS program name, the TIN, and the submission timestamp. For virtual group reporting, the Final Action Processing rules include the combination of the CMS program name, the Virtual Group Identifier, and the submission timestamp. For individual reporting, the Final Action Processing rules include the combination of the CMS program name, the TIN, the NPI number, and the submission timestamp. For APM Entity reporting, the Final Action Processing rules include the combination of the CMS program name, the APM Entity ID, and the submission timestamp.

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

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

4.4.3 Final Action Processing Rules for PCF

The last file successfully submitted for a PCF practice is used to determine if that PCF practice satisfactorily meets reporting requirements for the program year.

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

4.4.4 Program Identifiers Used in Succession Management

The CMS program name requirement for QRDA III submission is specified in 5.1.1 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) for the 2023 performance period. 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 reports. When submitting a replacement QRDA III report, the replacement QRDA III report **must** contain the same CMS program name as specified in the report that it is intended to replace. The timestamp of the latest file submitted will be used to determine which file is to be analyzed for the specified CMS program, therefore an error in the CMS program name will produce the wrong analysis. For example, if you are submitting a file initially for PCF, find an error, and resubmit the file with another CMS program name (such as MIPS_GROUP), the resubmitted file will only be analyzed for MIPS.

4.5 Time Zone

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

Table 1: Time Zone Validation Rule

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

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

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

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

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

4.6 Performance Period and Performance Rate

The performance period for the PCF model begins on January 1, 2023 and ends on December 31, 2023. If the CMS program name code is "PCF", the Reporting Parameters Act `effectiveTime/low` and `effectiveTime/high` value must be set as the following:

- act[@templateId="`2.16.840.1.113883.10.20.17.3.8`"]/effectiveTime/low/@value="`20230101`"

- act[@templateId="2.16.840.1.113883.10.20.17.3.8"]/effectiveTime/high/@value="20231231"

For the MIPS performance period requirement, please see 4.2 Merit-Based Incentive Payment System (MIPS) QRDA III Submissions and 5.1.5 component.

For the PCF model, performance rate(s) must be reported for eCQMs that are proportion measure-based. This is specified in the following conformance statement:

> If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="PCF", then Performance Rate for Proportion Measure – CMS (V4) **SHALL** be present (CONF:CMS_97).

For MIPS reporting, performance rates for either eCQMs or Promoting Interoperability measures are not required for submissions. If performance rates are provided, they will be ignored by the receiving system.

4.7 Templates Versioning and Validations

Both the base HL7 QRDA III R1 and the CMS QRDA III Implementation Guide have versioned the templates if changes were made to the previous version of the template. Details about CDA templates versioning in general are described in 1.8.2 Template Versioning of the HL7 QRDA III R1 (Volume 1). For example, in the HL7 QRDA III R1, the previous Measure Reference and Results (V3) template is now Measure Reference and Results (V4), its template identifier is "2.16.840.1.113883.10.20.27.3.1:2020-12-01". Both the @root and @extension are required as specified in the IG.

SHALL contain exactly one [1..1] **templateId** (CONF:4484-17908) such that it
a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.27.3.1" (CONF:4484-17909).
b. **SHALL** contain exactly one [1..1] **@extension**="2020-12-01" (CONF:4484-21170).

Correct template versions that are specified by both the base HL7 QRDA III R1 and the 2023 CMS IG must be used for 2023 CMS QRDA III submissions.

5 QRDA Category III Validation

5.1 Document-Level Template: QRDA Category III Report - CMS (V7)

`[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.27.1.2:2022-05-01 (open)]`

Table 2: QRDA Category III Report - CMS (V7) Contexts

Contained By	Contains
N/A	QRDA Category III Measure Section - CMS (V5) (optional)

This template describes constraints that apply to the QRDA Document Category III Report for CMS Eligible Clinicians Programs including PCF model and MIPS.

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

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

1. Conforms to QRDA Category III Report (V5) template `(identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.1.1:2020-12-01)`.
2. **SHALL** contain exactly one [1..1] **`templateId`** (CONF:CMS_1) such that it
    a. **SHALL** contain exactly one [1..1] **`@root`**`="2.16.840.1.113883.10.20.27.1.2"` (CONF:CMS_2).
    b. **SHALL** contain exactly one [1..1] **`@extension`**`="2022-05-01"` (CONF:CMS_3).
3. **SHALL** contain exactly one [1..1] **`confidentialityCode`** (CONF:4526-17238_C01).
    a. This confidentialityCode **SHALL** contain exactly one [1..1] **`@code`**`="N"` Normal (CodeSystem: `HL7Confidentiality urn:oid:2.16.840.1.113883.5.25`) (CONF:CMS_4).
4. **SHALL** contain exactly one [1..1] **`languageCode`** (CONF:4526-17239).
    a. This languageCode **SHALL** contain exactly one [1..1] **`@code`**`="en"` English (CodeSystem: `Language urn:oid:2.16.840.1.113883.6.121`) (CONF:4526-19669_C01).

5.1.1 informationRecipient

a. The informationRecipient represents the CMS eligible clinicians program the report is being submitted to. **SHALL** contain exactly one [1..1] **`informationRecipient`** (CONF:CMS_7).This informationRecipient **SHALL** contain exactly one [1..1] **`intendedRecipient`** (CONF:CMS_8).This intendedRecipient **SHALL** contain exactly one [1..1] **`id`**

(CONF:CMS_9).This id **SHALL** contain exactly one [1..1] **`@root="`**`2.16.840.1.113883.3.249.7`**`"`** CMS Program (CONF:CMS_10).This id **SHALL** contain exactly one [1..1] **`@extension`**, which **SHALL** be selected from ValueSet `QRDA III CMS Program Name urn:oid:2.16.840.1.113883.3.249.14.101` **STATIC** 2021-07-01 (CONF:CMS_11).
Note: The extension value is the CMS program name code, which indicates the CMS program the report is being submitted to. If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="PCF", then ClinicalDocument/participant/@typeCode="LOC" **SHALL** be present (CONF:CMS_99).
Note: For PCF reporting, PCF APM Entity Identifier must be submitted. If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="PCF", then QRDA Category III Measure Section – CMS (V5) **SHALL** be present (CONF:CMS_100).
Note: For PCF reporting, the QRDA III document must contain a quality (eCQMs) section. If ClinicalDocument/informationRecipient/intendedRecipi ent/id/@extension="PCF", then Performance Rate for Proportion Measure – CMS (V4) **SHALL** be present (CONF:CMS_97).
Note: For PCF reporting, performance rate for a proportion eCQM must be specified. If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="PCF", then CMS EHR Certification ID **SHALL** be present (CONF:CMS_98).

b. If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="PCF", then Promoting Interoperability Measure Section (V3) **SHALL NOT** be present (CONF:CMS_113).
c. If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="MIPS_APMENTITY", then Promoting Interoperability Measure Section (V3) **SHALL NOT** be present (CONF:CMS_110).
d. If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="MIPS_APP1_APMENTITY", then Promoting Interoperability Measure Section (V3) **SHALL NOT** be present (CONF:CMS_111).

Table 3: QRDA III CMS Program Name

Value Set: QRDA III CMS Program Name 2.16.840.1.113883.3.249.14.101 Specifies the CMS Program for QRDA III report submissions.			
Code	**Code System**	**Code System OID**	**Print Name**
PCF	CMS Program	2.16.840.1.113883.3.249.7	PCF
MIPS_INDIV	CMS Program	2.16.840.1.113883.3.249.7	MIPS Individual
MIPS_GROUP	CMS Program	2.16.840.1.113883.3.249.7	MIPS Group
MIPS_VIRTUALGROUP	CMS Program	2.16.840.1.113883.3.249.7	MIPS Virtual Group
MIPS_APMENTITY	CMS Program	2.16.840.1.113883.3.249.7	MIPS APM Entity
MIPS_APP1_INDIV	CMS Program	2.16.840.1.113883.3.249.7	MIPS APP Individual Reporting
MIPS_APP1_GROUP	CMS Program	2.16.840.1.113883.3.249.7	MIPS APP Group Reporting
MIPS_APP1_APMENTITY	CMS Program	2.16.840.1.113883.3.249.7	MIPS APP APM Entity Reporting

Figure 5: informationRecipient Example

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

5.1.2 participant is Location (PCF Practice Site)

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

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

5. **MAY** contain zero or one [0..1] **`participant`** (CONF:CMS_15) such that it
    a. **SHALL** contain exactly one [1..1] **`@typeCode`**="`LOC`" Location (CodeSystem: `HL7ParticipationType urn:oid:2.16.840.1.113883.5.90`) (CONF:CMS_16).
    b. **SHALL** contain exactly one [1..1] **`associatedEntity`** (CONF:CMS_17).
        i. This associatedEntity **SHALL** contain exactly one [1..1] **`@classCode`**="`SDLOC`" Service Delivery Location (CONF:CMS_18).
        ii. This associatedEntity **SHALL** contain exactly one [1..1] **`id`** (CONF:CMS_101) such that it
            1. **SHALL** contain exactly one [1..1] **`@root`**="`2.16.840.1.113883.3.249.5.3`" PCF Practice Site (CONF:CMS_102).

Note: This OID contained in the @root (2.16.840.1.113883.3.249.5.3) designates that the @extension must hold a PCF APM Entity Identifier.

2. **SHALL** contain exactly one [1..1] **`@extension`** (CONF:CMS_103).

   Note: This is the PCF APM Entity Identifier assigned to the PCF practice.

iii. This associatedEntity **SHALL** contain exactly one [1..1] **`code`** (CONF:CMS_22).

1. This code **SHALL** contain exactly one [1..1] **`@code`**="`394730007`" Healthcare Related Organization (CONF:CMS_23).
2. This code **SHALL** contain exactly one [1..1] **`@codeSystem`** (CodeSystem: `SNOMED CT urn:oid:2.16.840.1.113883.6.96`) (CONF:CMS_24).

iv. This associatedEntity **SHALL** contain exactly one [1..1] **`addr`** (CONF:CMS_25).

v. If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="PCF", then this participant/associatedEntity **SHALL** contain the id for PCF Practice Site (CONF:CMS_105).

Figure 6: Location Participant Example – PCF Practice Site

```
<participant typeCode="LOC">
  <associatedEntity classCode="SDLOC">
    <id root="2.16.840.1.113883.3.249.5.3" extension="OR1234"
        assigningAuthorityName="CMS-CMMI"/>
    <code code="394730007"
        displayName="healthcare related organization"
        codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="SNOMED-CT"/>
    <addr>
      <streetAddressLine>123 Healthcare St</streetAddressLine>
      <city>Norman</city>
      <state>OK</state>
      <postalCode>73019</postalCode>
    </addr>
  </associatedEntity>
</participant>
```

5.1.3 Participant (CMS EHR Certification ID)

For the 2023 performance period, participants will submit a single set of Promoting Interoperability Objectives and Measures to align with 2015 Edition certified EHR technology (CEHRT). As part of their submission, participants shall include a CMS EHR Certification ID that represents the CEHRT used by the individual or group during the performance period. Groups should ensure that their CMS EHR Certification ID reflects all products used by clinicians within the group before generating the ID. Only one CMS EHR Certification ID should be submitted for group reporting. To obtain a CMS EHR Certification ID, participants should enter their product information in the ONC Certified Health IT Product List (CHPL) website search tool and select all certified products or certified health IT modules used during the performance period. Full instructions on how to create a CMS EHR Certification ID are in the CHPL Public User Guide, https://www.healthit.gov/sites/default/files/policy/chpl_public_user_guide.pdf.

For MIPS submissions, a CMS EHR Certification ID is only required if the Promoting Interoperability performance category (Promoting Interoperability Measure Section (V3) `identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.5:2020-12-01)` is present in a QRDA III document. If a CMS EHR Certification ID is not supplied, the score for the PI performance category will be 0.

For MIPS submission, CMS EHR Certification ID is optional for the Quality performance category.

For PCF, all QRDA III files must include a CMS EHR Certification ID. Nulls will not be allowed. Please refer to section 4.1 Primary Care First (PCF) Submissions for additional information.

7. **MAY** contain zero or one [0..1] **`participant`** (CONF:CMS_85) such that it
    a. **SHALL** contain exactly one [1..1] **`@typeCode="`**`DEV`**`"`** device (CodeSystem: `HL7ParticipationType urn:oid:2.16.840.1.113883.5.90`) (CONF:CMS_86).
    b. **SHALL** contain exactly one [1..1] **`associatedEntity`** (CONF:CMS_87).
        i. This associatedEntity **SHALL** contain exactly one [1..1] **`@classCode="`**`RGPR`**`"`** regulated product (CodeSystem: `HL7ActClass urn:oid:2.16.840.1.113883.5.6`) (CONF:CMS_88).
        ii. This associatedEntity **SHALL** contain exactly one [1..1] **`id`** (CONF:CMS_89).
            1. This id **SHALL** contain exactly one [1..1] **`@root="`**`2.16.840.1.113883.3.2074.1`**`"`** CMS EHR Certification ID (CONF:CMS_90).
            2. This id **SHALL** contain exactly one [1..1] **`@extension`** (CONF:CMS_91).
            Note: The value of @extension is the CMS EHR Certification ID, which must be 15 alpha numeric characters in length.

5.1.4 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.

8. **SHALL** contain exactly one [1..1] **`documentationOf`** (CONF:4526-18170_C01).

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

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

For MIPS APM Entity reporting: it must contain one performer, which contains one APM Entity Identifier. NPI and TIN are not allowed..

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

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

For APP APM Entity reporting: it must contain one performer, which contains one APM Entity Identifier. No NPI is allowed.

For APP individual reporting: it must contain exactly one performer, which contains one TIN and one NPI.

For PCF: it must contain at least one performer, each performer contains one TIN and one NPI. Only PCF Practice Site providers are listed as performers.

a. This documentationOf **SHALL** contain exactly one [1..1] **`serviceEvent`** (CONF:4526-18171_C01).
    i. This serviceEvent **SHALL** contain at least one [1..*] **`performer`** (CONF:4526-18173).

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 for MIPS individual reporting, APP individual reporting and PCF reporting.

NPI is not allowed for for group reporting, MIPS virtual group reporting, MIPS APM Entity reporting, APP group reporting, and APP APM Entity reporting. This is represented by id/@root='2.16.840.1.113883.4.6' coupled with @nullFlavor="NA", and @extension shall be omitted.

1. Such performers **SHALL** contain exactly one [1..1] **`assignedEntity`** (CONF:4526-18176).
    a. This assignedEntity **SHALL** contain exactly one [1..1] **`id`** (CONF:4526-18177_C01) such that it
        i. **MAY** contain zero or one [0..1] **`@nullFlavor`** (CONF:CMS_29).
        Note: @nullFlavor is only present for MIPS group reporting, MIPS virtual group reporting, MIPS APM Entity reporting, APP group reporting, and APP APM Entity reporting.
        ii. **SHALL** contain exactly one [1..1] **`@root="`**`2.16.840.1.113883.4.6`**"** National Provider ID (CONF:4526-18178_C01).
        Note: This OID contained in the @root (2.16.840.1.113883.4.6) designates that the @extension must hold a National Provider ID.
        iii. **MAY** contain zero or one [0..1] **`@extension`** (CONF:4526-18247).
        Note: This is the provider's NPI. It is only present when this is a MIPS individual reporting, APP individual reporting, or PCF reporting. For PCF, only those NPIs that are participating in the PCF model should be provided.
    b. This assignedEntity **SHALL** contain exactly one [1..1] **`representedOrganization`** (CONF:4526-18180).
        i. This representedOrganization **MAY** contain zero or one [0..1] **`id`** (CONF:4526-18181_C01) such that it
            1. **SHALL** contain exactly one [1..1] **`@root="`**`2.16.840.1.113883.4.2`**"** Tax ID Number (CONF:4526-18182).
            Note: This OID contained in the @root (2.16.840.1.113883.4.2) designates that

the @extension must hold a Tax Identification Number (TIN).

2. **SHALL** contain exactly one [1..1] **`@extension`** (CONF:4526-18190).
   Note: This is the organization's TIN.

ii. This representedOrganization **MAY** contain zero or one [0..1] **`id`** (CONF:CMS_79) such that it

1. **SHALL** contain exactly one [1..1] **`@root="`**`2.16.840.1.113883.3.249.5.2`**"** MIPS Virtual Group (CONF:CMS_80).
   Note: This OID contained in the @root (2.16.840.1.113883.3.249.5.2) designates that the @extension must hold a Virtual Group Identifier.
2. **SHALL** contain exactly one [1..1] **`@extension`** (CONF:CMS_81).
   Note: This is the Virtual Group Identifier.

iii. This representedOrganization **MAY** contain zero or one [0..1] **`id`** (CONF:CMS_106) such that it

1. **SHALL** contain exactly one [1..1] **`@root="`**`2.16.840.1.113883.3.249.5.4`**"** APM Entity Identifier (CONF:CMS_107).
   Note: This OID contained in the @root (2.16.840.1.113883.3.249.5.4) designates that the @extension must hold an APM Entity identifier.
2. **SHALL** contain exactly one [1..1] **`@extension`** (CONF:CMS_108).
   Note: This is the APM Entity identifier.

iv. If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="MIPS_GROUP" or "MIPS_APP1_GROUP", then this representedOrganization **SHALL** contain one [1..1] id such that it, **SHALL** be the group's TIN (CONF:CMS_82).

v. If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="MIPS_VIRTUALGROUP", then this representedOrganization **SHALL** contain one [1..1] id such that it, **SHALL** be the virtual group's Virtual Group Identifier (CONF:CMS_83).

vi. If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="MIPS_APMENTITY" or "MIPS_APP1_APMENTITY", then this representedOrganization **SHALL** contain one

[1..1] id such that it, **SHALL** be the APM Entity's APM Entity identifier (CONF:CMS_109).

vii. If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="MIPS_INDIV" or "MIPS_APP1_INDIV" or "PCF", then this representedOrganization **SHALL** contain one [1..1] id such that it, **SHALL** be the practitioner's TIN (CONF:CMS_112).

Figure 7: documentationOf Example – TIN and NPI

```
<documentationOf>
  <serviceEvent classCode="PCPR">
    <!-- Multiple performers can be included for PCF,
         each with an NPI and TIN -->
    <performer typeCode="PRF">
      <time>
        <low value="20230101"/>
        <high value="20231231"/>
      </time>
      <assignedEntity>
        <!-- Provider NPI -->
        <id root="2.16.840.1.113883.4.6" extension="2589654740"/>
        <representedOrganization>
          <!-- Organization TIN -->
          <id root="2.16.840.1.113883.4.2" extension="990000999"/>
          <name>Good Health Clinic</name>
        </representedOrganization>
      </assignedEntity>
    </performer>
  </serviceEvent>
</documentationOf>
```

5.1.5 component

A CMS QRDA Category III document for the 2023 performance period must contain at least a QRDA Category III Measure Section, an Improvement Activity Section, or a Promoting Interoperability Measure Section.

For the 2023 performance period, performance period reporting for Improvement Activities, Promoting Interoperability, and Quality performance categories all must be specified at the performance category level using the Reporting Parameters Act template in each of the sections.

The QRDA Category III Reporting Parameters Section shall not be used for specifying performance period.

9. **SHALL** contain exactly one [1..1] **component** (CONF:4526-17217).
    a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:4526-17235).
        i. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:4526-17283) such that it
            1. **SHALL** contain exactly one [1..1] **QRDA Category III Measure Section - CMS (V5)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.3:2022-05-01) (CONF:4526-17301_C01).

ii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:4526-21173) such that it
    1. **SHALL** contain exactly one [1..1] Improvement Activity Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.4:2020-12-01) (CONF:4526-21174).

iii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:4526-21317) such that it
    1. **SHALL** contain exactly one [1..1] Promoting Interoperability Measure Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.5:2022-12-01) (CONF:4526-21318).

ii. This structuredBody **SHALL** contain at least a QRDA Category III Measure Section - CMS (V5), or an Improvement Activity Section (V3), or a Promoting Interoperability Measure Section (V3) (CONF:4526-21394_C01).

Figure 8: structuredBody Example

```
<component>
  <structuredBody>
    <component>
      <!-- QRDA Category III Measure Section - CMS (V5)-->
      <section>
        ...
        <title>Measure Section</title>
        ...
      </section>
    </component>
    <component>
      <!-- Improvement Activity Section -->
      <section>
        ...
        <title>Measure Section</title>
        ...
      </section>
    </component>
    <component>
      <!—- Promoting Interoperability Measure Section (V3) -->
      <section>
        ...
        <title>Measure Section</title>
        ...
      </section>
    </component>
  </structuredBody>
</component>
```

5.2 Section-Level Templates

5.2.1 QRDA Category III Measure Section - CMS (V5)

`[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.27.2.3:2022-05-01 (open)]`

Table 4: QRDA Category III Measure Section – CMS (V5) Contexts

Contained By	Contains
QRDA Category III Report - CMS (V5) (optional)	Measure Reference and Results - CMS (V5) (required)

This section references the eCQM(s) being reported. For each reported eCQM, this section includes entries for reporting various aggregate counts (e.g. number of patients in the measure's denominator). For continuous variable measures, this section includes entries for reporting the continuous variables. This section can also include entries not only for aggregate counts, but also for 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 PCF reporting, this section must contain a Measure Reference and Results template for each eCQM that is being reported on by the PCF practice.

1. Conforms to QRDA Category III Measure Section (V5) template `(identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.1:2020-12-01).`
2. **SHALL** contain exactly one [1..1] **`templateId`** (CONF:CMS_64) such that it
    a. **SHALL** contain exactly one [1..1] **`@root`**`="2.16.840.1.113883.10.20.27.2.3"` (CONF:CMS_65).
    b. **SHALL** contain exactly one [1..1] **`@extension`**`="2022-05-01"` (CONF:CMS_66).
3. **SHALL** contain at least one [1..*] **`entry`** (CONF:4526-17906_C01) such that it
    a. **SHALL** contain exactly one [1..1] **`Measure Reference and Results - CMS (V5)`** `(identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.17:2022-05-01)` (CONF:4526-17907_C01).

Figure 9: QRDA III Measure Section – CMS (V5) Example

```
<section>
    <!-- Measure Section template ID -->
    <templateId root="2.16.840.1.113883.10.20.24.2.2" />
    <!-- QRDA Category III Measure Section (V5) template ID -->
    <templateId root="2.16.840.1.113883.10.20.27.2.1"
extension="2020-12-01"/>
    <!-- QRDA Category III Measure Section - CMS (V5) template ID -->
    <templateId root="2.16.840.1.113883.10.20.27.2.3"
extension="2022-05-01"/>
    <code code="55186-1" codeSystem="2.16.840.1.113883.6.1"/>
    <title>Measure Section</title>
    <text>
        <table border="1" width="100%">
            <thead>
                <tr>
                    <th>eCQM Title</th>
                    <th>Version specific identifier</th>
                </tr>
            </thead>
            <tbody>
                <tr>
                    <td>Controlling High Blood Pressure</td>
                    <td> 2c928082-7a14-d92c-017a-67b6f9971ea8</td>
                </tr>
            </tbody>
            <list>
            ...
            </list>
        </table>
     </text>
    <entry>
        <!-- Measure Reference and Results - CMS (V5) -->
        <organizer classCode="CLUSTER" moodCode="EVN">
        ...
        </organizer>
    </entry>
</section>
```

5.3 Entry-Level Templates

5.3.1 Measure Data - CMS (V4)

```
[observation: identifier
urn:hl7ii:2.16.840.1.113883.10.20.27.3.16:2019-05-01 (open)]
```

Table 5: Measure Data – CMS (V4) Contexts

Contained By	Contains
Measure Reference and Results - CMS (V5) (required)	Aggregate Count (required) Continuous Variable Measure Value (optional) Reporting Stratum (optional) Sex Supplemental Data Element (V3) (required) Ethnicity Supplemental Data Element (V2) (required) Race Supplemental Data Element (V2) (required) Payer Supplemental Data Element - CMS (V3) (required)

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 as listed in Section 6, below.

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

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

Table 6: Measure Data - CMS (V4) Constraints Overview

observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.16']
[templateId/@extension="2019-05-01"]

XPath	Card	Verb	Data Type	CONF#	Value
templateId	1..1	SHALL		CMS_41	
@root	1..1	SHALL		CMS_42	2.16.840.1.113883.10.20.27.3.16
@extension	1..1	SHALL		CMS_43	2019-05-01

5.3.2 Measure Reference and Results - CMS (V5)

`[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.27.3.17:2022-05-01 (open)]`

Table 7: Measure Reference and Results - CMS (V4) Contexts

Contained By	Contains
QRDA Category III Measure Section - CMS (V5) (required)	Performance Rate for Proportion Measure - CMS (V4) (optional) Measure Data - CMS (V4) (required)

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 8: Measure Reference and Results - CMS (V5) Constraints Overview

organizer[templateId/@root = '2.16.840.1.113883.10.20.27.3.17']
[templateId/@extension="2022-05-01"]

XPath	Card	Verb	Data Type	CONF#	Value
templateId	1..1	SHALL		CMS_54	
@root	1..1	SHALL		CMS_55	2.16.840.1.113883.10.20.27.3.17
@extension	1..1	SHALL		CMS_56	2022-05-01
component	0..*	MAY		4526-17903_C01	
observation	1..1	SHALL		4526-17904_C01	Performance Rate for Proportion Measure - CMS (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.25:2018-05-01)
component	1..*	SHALL		4526-18425_C01	
observation	1..1	SHALL		4526-18426_C01	Measure Data - CMS (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.16:2019-05-01

1. Conforms to Measure Reference and Results (V4) template `(identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.1:2020-12-01)`.
2. **SHALL** contain exactly one [1..1] **`templateId`** (CONF:CMS_54) such that it
   a. **SHALL** contain exactly one [1..1] **`@root`**`="2.16.840.1.113883.10.20.27.3.17"` (CONF:CMS_55).
   b. **SHALL** contain exactly one [1..1] **`@extension`**`="2022-05-01"` (CONF:CMS_56).
3. **MAY** contain zero or more [0..*] **`component`** (CONF:4526-17903_C01) such that it

5.3.4 Performance Rate for Proportion Measure – CMS (V4)

```
[observation: identifier
urn:hl7ii:2.16.840.1.113883.10.20.27.3.25:2022-05-01 (open)]
```

Table 12: Performance Rate for Proportion Measure – CMS (V4) Contexts

Contained By	Contains
Measure Reference and Results - CMS (V4) (optional)	

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

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

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

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

Table 13: Performance Rate for Proportion Measure - CMS (V4) Constraints Overview

observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.25']
[templateId/@extension="2022-05-01"]

XPath	Card	Verb	Data Type	CONF#	Value
templateId	1..1	SHALL		CMS_59	
@root	1..1	SHALL		CMS_60	2.16.840.1.113883.10.20.27.3.25
@extension	1..1	SHALL		CMS_61	2022-05-01
Value	1..1	SHALL	REAL	4526-21307_C01 CMS_62 CMS_63	
Reference	1..1	SHALL		4526-19651_C01	

XPath	Card	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		4526-19652_C01	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
externalObservation	1..1	SHALL		4526-19653_C01	
@classCode	1..1	SHALL		4526-19654	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass)
Id	1..1	SHALL		4526-19655	
@root	1..1	SHALL		4526-19656	
Code	1..1	SHALL		4526-19657	
@code	1..1	SHALL		4526-19658	NUMER
@codeSystem	1..1	SHALL		4526-21180	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4

1. Conforms to Performance Rate for Proportion Measure (V3) template `(identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.14:2020-12-01)`.
2. **SHALL** contain exactly one [1..1] **`templateId`** (CONF:CMS_59) such that it
    a. **SHALL** contain exactly one [1..1] **`@root`**`="2.16.840.1.113883.10.20.27.3.25"` (CONF:CMS_60).
    b. **SHALL** contain exactly one [1..1] **`@extension`**`="2022-05-01"` (CONF:CMS_61).
3. **SHALL** contain exactly one [1..1] **`value`** with @xsi:type="REAL" (CONF:4526-21307_C01).
    a. The value, if present, **SHALL** be greater than or equal to 0 and less than or equal to 1 (CONF:CMS_62).
    b. The value, if present, **SHALL** contain no more than 6 digits to the right of the decimal (CONF:CMS_63).

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

4. **SHALL** contain exactly one [1..1] **`reference`** (CONF:4526-19651_C01).
    a. This reference **SHALL** contain exactly one [1..1] **`@typeCode`**`="REFR"` refers to (CodeSystem: `HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002`) (CONF:4526-19652_C01).
    b. This reference **SHALL** contain exactly one [1..1] **`externalObservation`** (CONF:4526-19653_C01).
        i. This externalObservation **SHALL** contain exactly one [1..1] **`@classCode`** (CodeSystem: `HL7ActClass urn:oid:2.16.840.1.113883.5.6`) (CONF:4526-19654).
        ii. This externalObservation **SHALL** contain exactly one [1..1] **`id`** (CONF:4526-19655).
            1. This id **SHALL** contain exactly one [1..1] **`@root`** (CONF:4526-19656). Note: This is the ID of the numerator in the referenced eCQM.
        iii. This externalObservation **SHALL** contain exactly one [1..1] **`code`** (CONF:4526-19657).

1. This code **SHALL** contain exactly one [1..1] **`@code`**`="NUMER"` Numerator (CONF:4526-19658).
2. This code **SHALL** contain exactly one [1..1] **`@codeSystem`**`="2.16.840.1.113883.5.4"` (CodeSystem: `HL7ActCode urn:oid:2.16.840.1.113883.5.4`) (CONF:4526-21180).

Figure 13: Performance Rate for Proportion Measure - CMS (V4) Example

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Performance Rate -->
  <templateId root="2.16.840.1.113883.10.20.27.3.30" extension="2016-
09-01"/>
  <!-- Performance Rate for Proportion Measure (V3) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.14" extension="2020-
12-01"/>
  <!-- Performance Rate for Proportion Measure – CMS (V4)
       template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.25" extension="2022-
05-01"/>
  <code code="72510-1" codeSystem="2.16.840.1.113883.6.1"
        displayName="Performance Rate"
        codeSystemName="2.16.840.1.113883.6.1"/>
  <statusCode code="completed"/>
  <value xsi:type="REAL" value="0.833000"/>
  <!-- This is the reference to the Numerator in the eCQM -->
  <reference typeCode="REFR">
     <externalObservation classCode="OBS" moodCode="EVN">
       <!-- The externalObservationID contains the ID of the
            numerator in the referenced eCQM. -->
       <id root="A8B1A06E-C20F-4EAD-8440-1488D329B6D2"/>
       <code code="NUMER" displayName="Numerator"
             codeSystem="2.16.840.1.113883.5.4"
             codeSystemName="ActCode"/>
     </externalObservation>
  </reference>
</observation>
```

NQF/ Quality #	eCQM CMS #	Version Specific Measure ID	Population ID	
1365e/ 382	CMS177v11	2c928082-7ce1-6f5f-017d-002cb9ae0a21	IPOP: DENOM: NUMER:	EBA79DD6-1BD3-469D-958E-E042A45EF669 F6049FD1-E4CD-48B2-934B-DB15D0EDB2D2 F162147A-980C-4633-BE57-09894AFF420A
3475e/ 472	CMS249v5	2c928082-7ac4-569d-017a-ca2f0fa10205	IPOP: DENOM: DENEX: NUMER: NUMEX:	4B34F4ED-1A49-4A8B-87E8-FABF70962F2B A89FF41B-8F0B-486D-A640-945054FB9CA4 1865BCB7-B020-4329-A3B7-7AEA32E0AC81 C86B7AF8-F152-478F-8CFC-ACCC0D4BA376 D50C3A0F-57E4-4491-85AA-FA542D717E87
N/A/ 438	CMS347v6	2c928082-7fac-c041-017f-b8180fec068b	IPOP 1: DENOM 1: DENEX 1: NUMER 1: DENEXCEP 1: IPOP 2: DENOM 2: DENEX 2: NUMER 2: DENEXCEP 2: IPOP 3: DENOM 3: DENEX 3: NUMER 3: DENEXCEP 3:	B12E750E-E32A-4DAF-93A4-2902B9A7A006 D7210073-99D6-4616-8511-B15FF2C0DC36 5912E99B-963C-4F45-AD54-95D17670B56C 0DEB457A-D340-42D2-BD19-8038E502F8AA 2F1166B5-43F2-4E45-BC3D-2E399BBD41FF 0EC4214D-3153-4AAB-84E0-E9F18EB384B5 4138280C-EE28-4B9D-A963-B9EB69CA2C8B EC8E047A-242B-4798-8A75-09BADEF9C278 52221AD6-F254-4BD4-9FB5-07B0D9E14F32 9F91E492-AEFF-45D3-8637-24DA32CC3363 B2FD2F54-F64B-446A-B8D6-69E87CF6B1DB 733BFDF4-72B5-4474-95CA-AD14BDD0F739 800774E8-D7E7-45CF-8EF6-8D6F8538F60F C7164728-E597-499F-80DD-F6E42981E34F 64BF25A1-2691-494E-B51F-1B99F5FCE795
N/A/ 475	CMS349v5	2c928082-79c7-5ccc-0179-e7314f850909	IPOP: DENOM: DENEX: NUMER:	9129F55B-3A36-4E46-8438-03118FBBE8F3 19B8D19D-369E-4E2D-9C1A-720EB41EEB90 0C0B2EE5-4412-4DA4-AA7B-F95184A5DAE6 93B7A884-9D74-45B7-9FA5-F980DC3A46E9
N/A/ 462	CMS645v6	2c928082-7d0a-17c1-017d-0a2f702d00a4	IPOP: DENOM: NUMER: DENEXCEP:	A63A2F2D-81BC-4905-800A-195FC31797FE 7723BDB0-95DB-4430-A1A1-8B164E777E88 5EC744C6-2ABB-4E81-AEEC-6310E081EDC9 2091C83F-1866-4797-9858-877986C576F7
N/A 481	CMS646v3	2c928082-7c03-4632-017c-0abd21c10652	IPOP: DENOM: DENEX: NUMER: DENEXCEP:	95B76369-3ABF-4B4C-A38C-3D1A2EE8542F 64A8D4B0-6DB2-451A-A122-DF9ABDC89361 2811837F-59F8-4EB5-A580-F2A88D3B74D5 72AE0569-F012-47E9-99E4-96B375EA92C6 56B0D839-6F91-47AA-95D2-EB0E32018D1D
N/A/ 476	CMS771v4	2c928082-7c03-4632-017c-0abc66830646	IPOP: DENOM: DENEX: NUMER:	33C1803E-173C-41AD-8702-BF3125CA7BF4 9B79D949-EF45-4C97-BBE6-0475B9703D09 2A6FC813-F5D2-4454-B317-339FF6DDE9D1 792A9413-98A5-4DA6-92F0-20F7AB5E16F7
N/A/[3]	CMS951v1	2c928082-7fac-c041-017f-acf430150098	IPOP: DENOM: DENEX: NUMER:	E6F8706C-A37F-4316-97DE-563920A577F4 8545B038-5C37-4C75-A8E1-6015570C6401 188420E4-AA19-496E-ADE1-543AED6F00EB 75280F69-71E2-4FA3-8028-1F7C62199378

[3] Quality ID for CMS951 will be added after PFS Final Rule.

Section Heading	2023 CMS QRDA III Eligible Clinicians IG	2022 CMS QRDA III Eligible Clinicians
5.3.2. Measure Reference and Results – CMS (V5)	Conforms to Measure Reference and Results (V4) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.1:2020-12-01).	Conforms to Measure Reference and Results (V4) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.1:2016-09-01).
5.3.2. Measure Reference and Results – CMS (V5)	**SHALL** contain exactly one [1..1] **templateId** (CONF:CMS_54) such that it **SHALL** contain exactly one [1..1] **@root="**2.16.840.1.113883.10.20.27.3.17" (CONF:CMS_55). **SHALL** contain exactly one [1..1] **@extension="**2022-05-01" (CONF:CMS_56).	**SHALL** contain exactly one [1..1] **templateId** (CONF:CMS_54) such that it **SHALL** contain exactly one [1..1] **@root="**2.16.840.1.113883.10.20.27.3.17" (CONF:CMS_55). **SHALL** contain exactly one [1..1] **@extension="**2019-05-01" (CONF:CMS_56).
5.3.2. Measure Reference and Results – CMS (V5)	**MAY** contain zero or more [0..*] **component** (CONF:4526-17903_C01) such that it **SHALL** contain exactly one [1..1] Performance Rate for Proportion Measure - CMS (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.25:2022-05-01) (CONF:4526-17904_C01).	**MAY** contain zero or more [0..*] **component** (CONF:3259-17903) such that it **SHALL** contain exactly one [1..1] Performance Rate for Proportion Measure - CMS (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.25:2018-05-01) (CONF:4427-17904_C01).
5.3.4. Performance Rate for Proportion Measure – CMS (V4)	Conforms to Performance Rate for Proportion Measure (V3) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.14:2020-12-01).	Conforms to Performance Rate for Proportion Measure (V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.14:2016-09-01).
5.3.4. Performance Rate for Proportion Measure – CMS (V4)	**SHALL** contain exactly one [1..1] **templateId** (CONF:CMS_59) such that it **SHALL** contain exactly one [1..1] **@root="**2.16.840.1.113883.10.20.27.3.25" (CONF:CMS_60). **SHALL** contain exactly one [1..1] **@extension="**2022-05-01" (CONF:CMS_61).	**SHALL** contain exactly one [1..1] **templateId** (CONF:CMS_59) such that it **SHALL** contain exactly one [1..1] **@root="**2.16.840.1.113883.10.20.27.3.25" (CONF:CMS_60). **SHALL** contain exactly one [1..1] **@extension="**2018-05-01" (CONF:CMS_61).
6. 2023 eCQM Specifications for Eligible Clinicians UUID List	Updated the UUID list based on the eCQM specifications for Eligible Clincians for the 2023 performance period	UUID list based on the eCQM specifications for Eligible Clincians and Eligbile Professionals for the 2022 performance period
7. Measure Identifiers	Table 15, 16, & 17 to be updated after PFS Final Rule	Identifiers for the 2022 performance period.

13 Acronyms

The table below contains acronyms used in this guide.

Table 25: Acronyms

Acronym	Literal Translation
APM	Alternate Payment Model
APP	APM Performance Pathway
ANSI	American National Standards Institute
ASKU	Asked, but not known
CDA	Clinical Document Architecture
CEHRT	Certified EHR Technology
CMS	Centers for Medicare & Medicaid Services
CONF	conformance
CQL	Clinical Quality Language
eCQI	electronic clinical quality improvement
eCQM	electronic Clinical Quality Measure
EHR	electronic health record
HL7	Health Level Seven
HL7 V3	Health Level 7 Version 3
HQMF	Health Quality Measures Format
ID	identifier
IHTSDO	International Health Terminology Standard Development Organization
IP	initial population
LOINC	Logical Observation Identifiers Names and Codes
MIPS	Merit-Based Incentive Payment System
n/a	not applicable
NA	Not applicable
NLM	National Library of Medicine
NPI	National Provider Identification Number

Acronym	Literal Translation
OID	Object Identifier
ONC	Office of the National Coordinator for Health Information Technology
PCF	Primary Care First
PHDSC	Public Health Data Standards Consortium
QDM	Quality Data Model
QPP	Quality Payment Program
QRDA	Quality Reporting Data Architecture
QRDA III	Quality Reporting Data Architecture Category III
SNOMED CT	Systematized Nomenclature of Medicine, Clinical Terms
STU	Standard for Trial Use
TIN	Taxpayer Identification Number
UNK	Unknown
UTC	Coordinated Universal Time
UUID	Universally Unique Identifier
VSAC	Value Set Authority Center
XML	Extensible Markup Language

14 Glossary

Term	Definition
Electronic health record (EHR)	Electronic Health Record (EHR) is also known as the electronic patient record, electronic medical record, or computerized patient record. As defined by Healthcare Information Management and Systems Society, “the electronic health record (EHR) is a longitudinal electronic record of patient health information generated by one or more encounters in any care delivery setting. Included in this information are patient demographics, progress notes, problems, medications, vital signs, past medical history, immunizations, laboratory data, and imaging reports.”
Electronic Clinical Quality Measure (eCQM)	An electronic clinical quality measure (eCQM) is a clinical quality measure that is expressed and formatted to use data from electronic health records (EHR) and/or health information technology systems to measure healthcare quality, specifically data captured in structured form during the process of patient care. So they can be reported from an EHR, the Health Quality Measure Format (HQMF) is used to format the eCQM content using the Quality Data Model (QDM) to define the data elements and Clinical Quality Language (CQL) to express the logic needed to evaluate a provider or organization’s performance.
Merit-Based Incentive Payment System (MIPS)	A quality reporting system that includes an incentive payment for eligible clinicians who satisfactorily report data on quality measures for covered clinician services provided during the specified program year.
XML Path Language (XPath)	This notation provides a mechanism that will be familiar to developers for identifying parts of an XML document. XPath syntax selects nodes from an XML document using a path containing the context of the node(s). The path is constructed from node names and attribute names (prefixed by an '@') and concatenated with a '/' symbol.

15 References

Certified Health IT Product List. https://chpl.healthit.gov/

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

HL7 Clinical Document Architecture (CDA) R2 Implementation Guide: Quality Reporting Document Architecture (QRDA III) Release 1 – US Realm http://www.hl7.org/implement/standards/product_brief.cfm?product_id=286

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

Primary Care First (PCF) Model. https://innovation.cms.gov/innovation-models/primary-care-first-model-options

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

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