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Reporting Document Architecture (QRDA III),

Release 1 – US Realm

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Clinical Quality Information Work Group**

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| Logical Observation Identifiers Names & Codes (LOINC) | Regenstrief Institute |
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# document

QRDA Category III Report (V5)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.27.1.1:2020-12-01 (open)]

Table 1: QRDA Category III Report (V5) Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [QRDA Category III Measure Section (V5)](#S_QRDA_Category_III_Measure_Section_V5) (optional)  [Promoting Interoperability Measure Section (V3)](#S_Promoting_Interoperability_Measure_Se) (optional)  [Improvement Activity Section (V3)](#S_Improvement_Activity_Section_V3) (optional) |

This template describes constraints that apply to the Quality Reporting Document Architecture (QRDA) Document Category III Report. Document-level templates describe the rules for constructing a conforming CDA document. Document templates 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

A QRDA Category III Report must contain at least one QRDA Category III Measure Section, or an Improvement Activity Section, or a Promoting Interoperability Measure Section.

Table 2: QRDA Category III Report (V5) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.1.1:2020-12-01) | | | | | |
| realmCode | 1..1 | SHALL |  | [4484-17226](#C_4484-17226) |  |
| @code | 1..1 | SHALL |  | [4484-17227](#C_4484-17227) | US |
| typeId | 1..1 | SHALL |  | [4484-18186](#C_4484-18186) |  |
| @root | 1..1 | SHALL |  | [4484-18187](#C_4484-18187) | 2.16.840.1.113883.1.3 |
| @extension | 1..1 | SHALL |  | [4484-18188](#C_4484-18188) | POCD\_HD000040 |
| templateId | 1..1 | SHALL |  | [4484-17208](#C_4484-17208) |  |
| @root | 1..1 | SHALL |  | [4484-17209](#C_4484-17209) | 2.16.840.1.113883.10.20.27.1.1 |
| @extension | 1..1 | SHALL |  | [4484-21319](#C_4484-21319) | 2020-12-01 |
| id | 1..1 | SHALL |  | [4484-17236](#C_4484-17236) |  |
| code | 1..1 | SHALL |  | [4484-17210](#C_4484-17210) |  |
| @code | 1..1 | SHALL |  | [4484-19549](#C_4484-19549) | 55184-6 |
| @codeSystem | 1..1 | SHALL |  | [4484-21166](#C_4484-21166) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| title | 1..1 | SHALL |  | [4484-17211](#C_4484-17211) |  |
| effectiveTime | 1..1 | SHALL |  | [4484-17237](#C_4484-17237) |  |
| confidentialityCode | 1..1 | SHALL |  | [4484-17238](#C_4484-17238) | urn:oid:2.16.840.1.113883.1.11.16926 (HL7 BasicConfidentialityKind) |
| languageCode | 1..1 | SHALL |  | [4484-17239](#C_4484-17239) |  |
| @code | 1..1 | SHALL |  | [4484-19669](#C_4484-19669) | urn:oid:2.16.840.1.113883.1.11.11526 (Language) |
| versionNumber | 0..1 | SHOULD |  | [4484-18260](#C_4484-18260) |  |
| recordTarget | 1..1 | SHALL |  | [4484-17212](#C_4484-17212) |  |
| patientRole | 1..1 | SHALL |  | [4484-17232](#C_4484-17232) |  |
| id | 1..1 | SHALL |  | [4484-17233](#C_4484-17233) |  |
| @nullFlavor | 1..1 | SHALL |  | [4484-17234](#C_4484-17234) | NA |
| author | 1..\* | SHALL |  | [4484-18156](#C_4484-18156) |  |
| time | 1..1 | SHALL |  | [4484-18158](#C_4484-18158) |  |
| assignedAuthor | 1..1 | SHALL |  | [4484-18157](#C_4484-18157) |  |
| assignedPerson | 0..1 | MAY |  | [4484-18368](#C_4484-18368) |  |
| assignedAuthoringDevice | 0..1 | MAY |  | [4484-18162](#C_4484-18162) |  |
| softwareName | 1..1 | SHALL |  | [4484-18262](#C_4484-18262) |  |
| representedOrganization | 1..1 | SHALL |  | [4484-18163](#C_4484-18163) |  |
| name | 1..\* | SHALL |  | [4484-18265](#C_4484-18265) |  |
| custodian | 1..1 | SHALL |  | [4484-17213](#C_4484-17213) |  |
| assignedCustodian | 1..1 | SHALL |  | [4484-17214](#C_4484-17214) |  |
| representedCustodianOrganization | 1..1 | SHALL |  | [4484-17215](#C_4484-17215) |  |
| id | 1..\* | SHALL |  | [4484-18165](#C_4484-18165) |  |
| name | 0..1 | SHOULD |  | [4484-18166](#C_4484-18166) |  |
| legalAuthenticator | 0..1 | SHOULD |  | [4484-17225](#C_4484-17225) |  |
| time | 1..1 | SHALL |  | [4484-18167](#C_4484-18167) |  |
| signatureCode | 1..1 | SHALL |  | [4484-18168](#C_4484-18168) |  |
| @code | 1..1 | SHALL |  | [4484-18169](#C_4484-18169) | urn:oid:2.16.840.1.113883.5.89 (HL7ParticipationSignature) = S |
| assignedEntity | 1..1 | SHALL |  | [4484-19670](#C_4484-19670) |  |
| representedOrganization | 0..1 | MAY |  | [4484-19671](#C_4484-19671) |  |
| id | 1..\* | SHALL |  | [4484-19672](#C_4484-19672) |  |
| name | 0..1 | SHOULD |  | [4484-19673](#C_4484-19673) |  |
| participant | 0..\* | MAY |  | [4484-18300](#C_4484-18300) |  |
| @typeCode | 1..1 | SHALL |  | [4484-18301](#C_4484-18301) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DEV |
| associatedEntity | 1..1 | SHALL |  | [4484-18302](#C_4484-18302) |  |
| @classCode | 1..1 | SHALL |  | [4484-18303](#C_4484-18303) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = RGPR |
| id | 0..1 | MAY |  | [4484-18304](#C_4484-18304) |  |
| @root | 1..1 | SHALL |  | [4484-18305](#C_4484-18305) | 2.16.840.1.113883.3.2074.1 |
| @extension | 1..1 | SHALL |  | [4484-21452](#C_4484-21452) |  |
| id | 1..\* | SHALL |  | [4484-20954](#C_4484-20954) |  |
| code | 1..1 | SHALL |  | [4484-18308](#C_4484-18308) |  |
| @code | 1..1 | SHALL |  | [4484-18309](#C_4484-18309) | 129465004 |
| @codeSystem | 1..1 | SHALL |  | [4484-21167](#C_4484-21167) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| participant | 0..\* | MAY |  | [4484-21448](#C_4484-21448) |  |
| @typeCode | 1..1 | SHALL |  | [4484-21453](#C_4484-21453) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| associatedEntity | 1..1 | SHALL |  | [4484-21449](#C_4484-21449) |  |
| @classCode | 1..1 | SHALL |  | [4484-21454](#C_4484-21454) | SDLOC |
| id | 1..\* | SHALL |  | [4484-21455](#C_4484-21455) |  |
| code | 1..1 | SHALL |  | [4484-21450](#C_4484-21450) |  |
| @code | 1..1 | SHALL |  | [4484-21456](#C_4484-21456) | 394730007 |
| @codeSystem | 1..1 | SHALL |  | [4484-21457](#C_4484-21457) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) |
| addr | 1..1 | SHALL |  | [4484-21458](#C_4484-21458) |  |
| documentationOf | 1..1 | SHALL |  | [4484-18170](#C_4484-18170) |  |
| serviceEvent | 1..1 | SHALL |  | [4484-18171](#C_4484-18171) |  |
| @classCode | 1..1 | SHALL |  | [4484-18172](#C_4484-18172) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PCPR |
| performer | 1..\* | SHALL |  | [4484-18173](#C_4484-18173) |  |
| @typeCode | 1..1 | SHALL |  | [4484-18174](#C_4484-18174) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF |
| time | 0..1 | MAY |  | [4484-18175](#C_4484-18175) |  |
| assignedEntity | 1..1 | SHALL |  | [4484-18176](#C_4484-18176) |  |
| id | 0..1 | SHOULD |  | [4484-18177](#C_4484-18177) |  |
| @root | 1..1 | SHALL |  | [4484-18178](#C_4484-18178) | 2.16.840.1.113883.4.6 |
| @extension | 0..1 | MAY |  | [4484-18247](#C_4484-18247) |  |
| id | 1..\* | SHALL |  | [4484-19474](#C_4484-19474) |  |
| telecom | 0..\* | MAY |  | [4484-18310](#C_4484-18310) |  |
| representedOrganization | 1..1 | SHALL |  | [4484-18180](#C_4484-18180) |  |
| id | 0..1 | MAY |  | [4484-18181](#C_4484-18181) |  |
| @root | 1..1 | SHALL |  | [4484-18182](#C_4484-18182) | 2.16.840.1.113883.4.2 |
| @extension | 1..1 | SHALL |  | [4484-18190](#C_4484-18190) |  |
| id | 0..1 | MAY |  | [4484-18183](#C_4484-18183) |  |
| @root | 1..1 | SHALL |  | [4484-18184](#C_4484-18184) | 2.16.840.1.113883.4.336 |
| @extension | 1..1 | SHALL |  | [4484-18185](#C_4484-18185) |  |
| name | 0..\* | SHOULD |  | [4484-19659](#C_4484-19659) |  |
| authorization | 0..1 | MAY |  | [4484-18344](#C_4484-18344) |  |
| consent | 1..1 | SHALL |  | [4484-18360](#C_4484-18360) |  |
| id | 1..1 | SHALL |  | [4484-18361](#C_4484-18361) |  |
| code | 1..1 | SHALL |  | [4484-18363](#C_4484-18363) |  |
| @code | 1..1 | SHALL |  | [4484-19550](#C_4484-19550) | 425691002 |
| @codeSystem | 1..1 | SHALL |  | [4484-21172](#C_4484-21172) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| statusCode | 1..1 | SHALL |  | [4484-18364](#C_4484-18364) |  |
| @code | 1..1 | SHALL |  | [4484-19551](#C_4484-19551) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| component | 1..1 | SHALL |  | [4484-17217](#C_4484-17217) |  |
| structuredBody | 1..1 | SHALL |  | [4484-17235](#C_4484-17235) |  |
| component | 0..1 | MAY |  | [4484-17283](#C_4484-17283) |  |
| section | 1..1 | SHALL |  | [4484-17301](#C_4484-17301) | [QRDA Category III Measure Section (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.1:2020-12-01](#S_QRDA_Category_III_Measure_Section_V5)) |
| component | 0..1 | MAY |  | [4484-21173](#C_4484-21173) |  |
| section | 1..1 | SHALL |  | [4484-21174](#C_4484-21174) | [Improvement Activity Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.4:2020-12-01](#S_Improvement_Activity_Section_V3)) |
| component | 0..1 | MAY |  | [4484-21317](#C_4484-21317) |  |
| section | 1..1 | SHALL |  | [4484-21318](#C_4484-21318) | [Promoting Interoperability Measure Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.5:2020-12-01](#S_Promoting_Interoperability_Measure_Se)) |

Properties

realmCode

1. SHALL contain exactly one [1..1] realmCode (CONF:4484-17226).
   1. This realmCode SHALL contain exactly one [1..1] @code="US" (CONF:4484-17227).
2. SHALL contain exactly one [1..1] typeId (CONF:4484-18186).
   1. This typeId SHALL contain exactly one [1..1] @root="2.16.840.1.113883.1.3" (CONF:4484-18187).
   2. This typeId SHALL contain exactly one [1..1] @extension="POCD\_HD000040" (CONF:4484-18188).
3. SHALL contain exactly one [1..1] templateId (CONF:4484-17208) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.1.1" (CONF:4484-17209).
   2. SHALL contain exactly one [1..1] @extension="2020-12-01" (CONF:4484-21319).
4. SHALL contain exactly one [1..1] id (CONF:4484-17236).
   1. This id SHALL be a globally unique identifier for the document (CONF:4484-17242).
5. SHALL contain exactly one [1..1] code (CONF:4484-17210).
   1. This code SHALL contain exactly one [1..1] @code="55184-6" Quality Reporting Document Architecture Calculated Summary Report (CONF:4484-19549).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4484-21166).
6. SHALL contain exactly one [1..1] title (CONF:4484-17211).
7. SHALL contain exactly one [1..1] effectiveTime (CONF:4484-17237).
   1. The content SHALL be a conformant US Realm Date and Time (DTM.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4) (CONF:4484-18189).

confidentialityCode

1. SHALL contain exactly one [1..1] confidentialityCode, which SHOULD be selected from ValueSet [HL7 BasicConfidentialityKind](#HL7_BasicConfidentialityKind) urn:oid:2.16.840.1.113883.1.11.16926 STATIC (CONF:4484-17238).

languageCode

1. SHALL contain exactly one [1..1] languageCode (CONF:4484-17239).
   1. This languageCode SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet [Language](#Language) urn:oid:2.16.840.1.113883.1.11.11526 DYNAMIC (CONF:4484-19669).

versionNumber

1. SHOULD contain zero or one [0..1] versionNumber (CONF:4484-18260).

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).

1. SHALL contain exactly one [1..1] recordTarget (CONF:4484-17212).
   1. This recordTarget SHALL contain exactly one [1..1] patientRole (CONF:4484-17232) such that it
      1. SHALL contain exactly one [1..1] id (CONF:4484-17233).
         1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:4484-17234).

Figure 1: recordTarget Nulled Id Example

<recordTarget>

<patientRole>

<id nullFlavor="NA"/>

</patientRole>

</recordTarget>

author

The CDA standard requires an author with an identifier. In addition, the QRDA Category III document type requires that the author be declared as a person or a device. The document can be authored solely by a person or by a device, or the document could be authored by a combination of one or more devices and/or one or more people.

1. SHALL contain at least one [1..\*] author (CONF:4484-18156) such that it
   1. SHALL contain exactly one [1..1] time (CONF:4484-18158).
   2. SHALL contain exactly one [1..1] assignedAuthor (CONF:4484-18157).
      1. This assignedAuthor MAY contain zero or one [0..1] assignedPerson (CONF:4484-18368).
      2. This assignedAuthor MAY contain zero or one [0..1] assignedAuthoringDevice (CONF:4484-18162).
         1. The assignedAuthoringDevice, if present, SHALL contain exactly one [1..1] softwareName (CONF:4484-18262).
      3. This assignedAuthor SHALL contain exactly one [1..1] representedOrganization (CONF:4484-18163).
         1. This representedOrganization SHALL contain at least one [1..\*] name (CONF:4484-18265).
   3. There SHALL be exactly one assignedAuthor/assignedPerson or exactly one assignedAuthor/assignedAuthoringDevice (CONF:4484-19667).

Figure 2: Device Author Example

<author>

<time value="20200201"/>

<assignedAuthor>

<!-- author ID. This may be an NPI, or any other type of ID. -->

<id root="2.16.840.1.113883.4.6" extension="111111111"

assigningAuthorityName="NPI"/>

<assignedAuthoringDevice>

<softwareName>SOME Data Aggregator Transform Tool KP00017dev

</softwareName>

</assignedAuthoringDevice>

<representedOrganization>

<!-- The organization id is optional, but the name is required -->

<id root="2.16.840.1.113883.19.5" extension="98765"/>

<name>Good Health Hospital</name>

</representedOrganization>

</assignedAuthor>

</author>

Figure 3: Person Author Example

<author>

<time value="20200201224411"/>

<assignedAuthor>

<!-- author ID. This may be an NPI, or any other type of ID. -->

<id root="2.16.840.1.113883.4.6" extension="111111112"

assigningAuthorityName="NPI"/>

<assignedPerson>

<name>

<given>Henry</given>

<family>Seven</family>

</name>

</assignedPerson>

<representedOrganization>

<!-- The organization id is optional -->

<id root="2.16.840.1.113883.19.5" extension="5454545"/>

<name>Good Health Hospital</name>

</representedOrganization>

</assignedAuthor>

</author>

custodian

1. SHALL contain exactly one [1..1] custodian (CONF:4484-17213).
   1. This custodian SHALL contain exactly one [1..1] assignedCustodian (CONF:4484-17214).
      1. This assignedCustodian SHALL contain exactly one [1..1] representedCustodianOrganization (CONF:4484-17215).
         1. This representedCustodianOrganization SHALL contain at least one [1..\*] id (CONF:4484-18165).
         2. This representedCustodianOrganization SHOULD contain zero or one [0..1] name (CONF:4484-18166).
   2. This assignedCustodian SHALL represent the organization that owns and reports the data (CONF:4484-18246).

Figure 4: Custodian Example

<custodian>

<assignedCustodian>

<representedCustodianOrganization>

<!-- This is an example root -->

<id root="2.16.840.1.113883.19.5"/>

<name>Good Health Hospital</name>

</representedCustodianOrganization>

</assignedCustodian>

</custodian>

legalAuthenticator

The legalAuthenticator identifies the single person legally responsible for the document and must be present if the document has been legally authenticated. A clinical document that does not contain this element has not been legally authenticated. The act of legal authentication requires a certain privilege be granted to the legal authenticator depending upon local policy. Based on local practice, clinical documents may be released before legal authentication. All clinical documents have the potential for legal authentication, given the appropriate credentials. Local policies MAY choose to delegate the function of legal authentication to a device or system that generates the clinical document. In these cases, the legal authenticator is a person accepting responsibility for the document, not the generating device or system. Note that the legal authenticator, if present, must be a person.

1. SHOULD contain zero or one [0..1] legalAuthenticator (CONF:4484-17225).
   1. The legalAuthenticator, if present, SHALL contain exactly one [1..1] time (CONF:4484-18167).
   2. The legalAuthenticator, if present, SHALL contain exactly one [1..1] signatureCode (CONF:4484-18168).
      1. This signatureCode SHALL contain exactly one [1..1] @code="S" (CodeSystem: HL7ParticipationSignature urn:oid:2.16.840.1.113883.5.89 STATIC) (CONF:4484-18169).
   3. The legalAuthenticator, if present, SHALL contain exactly one [1..1] assignedEntity (CONF:4484-19670).
      1. This assignedEntity MAY contain zero or one [0..1] representedOrganization (CONF:4484-19671).
         1. The representedOrganization, if present, SHALL contain at least one [1..\*] id (CONF:4484-19672).
         2. The representedOrganization, if present, SHOULD contain zero or one [0..1] name (CONF:4484-19673).

Figure 5: LegalAuthenticator Example

<legalAuthenticator>

<time value="20200201"/>

<signatureCode code="S"/>

<assignedEntity>

<id root="bc01a5d1-3a34-4286-82cc-43eb04c972a7"/>

<representedOrganization>

<!-- example root -->

<id root="2.16.840.1.113883.19.5"/>

<name>Good Health Hospital</name>

</representedOrganization>

</assignedEntity>

</legalAuthenticator>

Participant is Device

The generic participant with a participationType of device and an associatedEntity class code of RGPR (regulated product) is used to represent Electronic Health Record (EHR) government agency certification identifiers.

1. MAY contain zero or more [0..\*] participant (CONF:4484-18300) such that it
   1. SHALL contain exactly one [1..1] @typeCode="DEV" device (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:4484-18301).
   2. SHALL contain exactly one [1..1] associatedEntity (CONF:4484-18302).
      1. This associatedEntity SHALL contain exactly one [1..1] @classCode="RGPR" regulated product (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4484-18303).
      2. This associatedEntity MAY contain zero or one [0..1] id (CONF:4484-18304) such that it
         1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.3.2074.1" CMS EHR Certification ID (CONF:4484-18305).
         2. SHALL contain exactly one [1..1] @extension (CONF:4484-21452).  
            Note: The value of @extension is the CMS EHR Certification ID
      3. This associatedEntity SHALL contain at least one [1..\*] id (CONF:4484-20954).
      4. This associatedEntity SHALL contain exactly one [1..1] code (CONF:4484-18308).
         1. This code SHALL contain exactly one [1..1] @code="129465004" medical record, device (CONF:4484-18309).
         2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:4484-21167).

Figure 6: Participant Example

<participant typeCode="DEV">

<associatedEntity classCode="RGPR">

<!-- SHALL have at least one id, form can vary -->

<!-- CMS EHR Certification ID -->

<id root="2.16.840.1.113883.3.2074.1" extension="0015EUK17H3DCM9" />

<code code="129465004" displayName="medical record, device"

codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED-CT"/>

</associatedEntity>

</participant>

Participant is Location

Participant is a location is represented as setting the generic participant with a participationType of 'LOC' (location) and an associatedEntity classCode of 'SDLOC' (service delivery location).

1. MAY contain zero or more [0..\*] participant (CONF:4484-21448) such that it
   1. SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4484-21453).
   2. SHALL contain exactly one [1..1] associatedEntity (CONF:4484-21449).
      1. This associatedEntity SHALL contain exactly one [1..1] @classCode="SDLOC" Service Delivery Location (CONF:4484-21454).
      2. This associatedEntity SHALL contain at least one [1..\*] id (CONF:4484-21455).
      3. This associatedEntity SHALL contain exactly one [1..1] code (CONF:4484-21450).
         1. This code SHALL contain exactly one [1..1] @code="394730007" Healthcare Related Organization  (CONF:4484-21456).
         2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:4484-21457).
      4. This associatedEntity SHALL contain exactly one [1..1] addr (CONF:4484-21458).

Figure 7: Participant is Location Example

<participant typeCode="LOC">

<associatedEntity classCode="SDLOC">

<id root="an\_example\_OID" extension="PracticeLocation1"/>

<code code="394730007"

displayName="healthcare related organization"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED-CT"/>

<addr>

<streetAddressLine>Street 123</streetAddressLine>

<city>City</city>

<state>TX</state>

<postalCode>12345</postalCode>

</addr>

</associatedEntity>

</participant>

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.

1. SHALL contain exactly one [1..1] documentationOf (CONF:4484-18170).
   1. This documentationOf SHALL contain exactly one [1..1] serviceEvent (CONF:4484-18171).
      1. This serviceEvent SHALL contain exactly one [1..1] @classCode="PCPR" Care Provision (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4484-18172).
      2. This serviceEvent SHALL contain at least one [1..\*] performer (CONF:4484-18173).
         1. Such performers SHALL contain exactly one [1..1] @typeCode="PRF" Performer (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:4484-18174).
         2. Such performers MAY contain zero or one [0..1] time (CONF:4484-18175).
         3. Such performers SHALL contain exactly one [1..1] assignedEntity (CONF:4484-18176).

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.

* + - * 1. This assignedEntity SHOULD contain zero or one [0..1] id (CONF:4484-18177) such that it

SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.6" National Provider ID (CONF:4484-18178).

MAY contain zero or one [0..1] @extension (CONF:4484-18247).

* + - * 1. This assignedEntity SHALL contain at least one [1..\*] id (CONF:4484-19474).
        2. This assignedEntity MAY contain zero or more [0..\*] telecom (CONF:4484-18310).
        3. This assignedEntity SHALL contain exactly one [1..1] representedOrganization (CONF:4484-18180).

This representedOrganization id/@root coupled with the id/@extension can be used to represent the organization's Tax Identification Number (TIN). Other representedOrganization ids may be present.

This representedOrganization MAY contain zero or one [0..1] id (CONF:4484-18181) such that it

SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.2" Tax ID Number (CONF:4484-18182).  
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)

SHALL contain exactly one [1..1] @extension (CONF:4484-18190).  
Note: This is the organization's TIN

This representedOrganization id/@root coupled with the id/@extension represents the organization's CMS Certification Number (CCN). Other representedOrganization ids may be present.

This representedOrganization MAY contain zero or one [0..1] id (CONF:4484-18183) such that it

SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.336" CMS Certification Number (CONF:4484-18184).

SHALL contain exactly one [1..1] @extension (CONF:4484-18185).

This representedOrganization SHOULD contain zero or more [0..\*] name (CONF:4484-19659).

Figure 8: documentationOf Example

<documentationOf typeCode="DOC">

<serviceEvent classCode="PCPR">

<!-- Multiple performers can be included with their TIN and/or NPI -->

<performer typeCode="PRF">

<assignedEntity>

<!-- SHALL contain at least one id -->

<!-- Provider NPI -->

<id root="2.16.840.1.113883.4.6"

extension="2567891421"

assigningAuthorityName="NPI"/>

<representedOrganization>

<!-- Organization TIN -->

<id root="2.16.840.1.113883.4.2" extension="1234567"

assigningAuthorityName="TIN"/>

</assignedEntity>

</performer>

</serviceEvent>

</documentationOf>

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.

1. MAY contain zero or one [0..1] authorization (CONF:4484-18344).
   1. The authorization, if present, SHALL contain exactly one [1..1] consent (CONF:4484-18360).

The consent/id is the identifier of the consent given by the eligible provider.

* + 1. This consent SHALL contain exactly one [1..1] id (CONF:4484-18361).
    2. This consent SHALL contain exactly one [1..1] code (CONF:4484-18363).
       1. This code SHALL contain exactly one [1..1] @code="425691002" Consent given for electronic record sharing (CONF:4484-19550).
       2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:4484-21172).
    3. This consent SHALL contain exactly one [1..1] statusCode (CONF:4484-18364).
       1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4484-19551).

Figure 9: Participation Waiver 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>

component

A QRDA Category III document must contain at least a QRDA Category III Measure section, an Improvement Activity section, or a Promoting Interoperability Measure section. The performance period for each performance category must be specified using the Reporting Parameters Act template in each section.

1. SHALL contain exactly one [1..1] component (CONF:4484-17217).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:4484-17235).
      1. This structuredBody MAY contain zero or one [0..1] component (CONF:4484-17283) such that it
         1. SHALL contain exactly one [1..1] [QRDA Category III Measure Section (V5)](#S_QRDA_Category_III_Measure_Section_V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.1:2020-12-01) (CONF:4484-17301).
      2. This structuredBody MAY contain zero or one [0..1] component (CONF:4484-21173) such that it
         1. SHALL contain exactly one [1..1] [Improvement Activity Section (V3)](#S_Improvement_Activity_Section_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.4:2020-12-01) (CONF:4484-21174).
      3. This structuredBody MAY contain zero or one [0..1] component (CONF:4484-21317) such that it
         1. SHALL contain exactly one [1..1] [Promoting Interoperability Measure Section (V3)](#S_Promoting_Interoperability_Measure_Se) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.5:2020-12-01) (CONF:4484-21318).
      4. This structuredBody SHALL contain at least a QRDA Category III Measure Section (V5), or an Improvement Activity Section (V3), or a Promoting Interoperability Measure Section (V3) (CONF:4484-21394).

Figure 10: Body Example

<component>

<structuredBody>

<component>

<section>

...

<!-- QRDA Category III Measure Section -->

...

</section>

</component>

<component>

<section>

...

<!-- Improvement Activity Section -->

...

</section>

</component>

<component>

<section>

...

<!-- Promoting Interoperability Measure Section -->

...

</section>

</component>

</structuredBody>

</component>

# section

Measure Section

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

Table 3: Measure Section Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Measure Reference](#E_Measure_Reference) (required) |

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

Table 4: Measure Section Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:oid:2.16.840.1.113883.10.20.24.2.2) | | | | | |
| templateId | 1..1 | SHALL |  | [67-12801](#C_67-12801) |  |
| @root | 1..1 | SHALL |  | [67-12802](#C_67-12802) | 2.16.840.1.113883.10.20.24.2.2 |
| code | 1..1 | SHALL |  | [67-12798](#C_67-12798) |  |
| @code | 1..1 | SHALL |  | [67-19230](#C_67-19230) | 55186-1 |
| @codeSystem | 1..1 | SHALL |  | [67-27012](#C_67-27012) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| title | 1..1 | SHALL |  | [67-12799](#C_67-12799) | Measure Section |
| text | 1..1 | SHALL |  | [67-12800](#C_67-12800) |  |
| entry | 1..\* | SHALL |  | [67-13003](#C_67-13003) |  |
| organizer | 1..1 | SHALL |  | [67-16677](#C_67-16677) | [Measure Reference (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.98](#E_Measure_Reference)) |

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

Improvement Activity Section (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.27.2.4:2020-12-01 (open)]

Table 5: Improvement Activity Section (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [QRDA Category III Report (V5)](#D_QRDA_Category_III_Report_V5) (optional) | [Improvement Activity Performed Measure Reference and Results](#E_Improvement_Activity_Performed_Measur) (required)  [Reporting Parameters Act (V2)](#E_Reporting_Parameters_Act_V2) (required) |

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

Table 6: Improvement Activity Section (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.4:2020-12-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4484-21175](#C_4484-21175) |  |
| @root | 1..1 | SHALL |  | [4484-21177](#C_4484-21177) | 2.16.840.1.113883.10.20.27.2.4 |
| @extension | 1..1 | SHALL |  | [4484-21398](#C_4484-21398) | 2020-12-01 |
| entry | 1..\* | SHALL |  | [4484-21181](#C_4484-21181) |  |
| organizer | 1..1 | SHALL |  | [4484-21436](#C_4484-21436) | [Improvement Activity Performed Measure Reference and Results (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.33:2016-09-01](#E_Improvement_Activity_Performed_Measur)) |
| entry | 1..1 | SHALL |  | [4484-26558](#C_4484-26558) |  |
| act | 1..1 | SHALL |  | [4484-26559](#C_4484-26559) | [Reporting Parameters Act (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.17.3.8:2020-12-01](#E_Reporting_Parameters_Act_V2)) |

1. Conforms to [Measure Section](#S_Measure_Section) template (identifier: urn:oid:2.16.840.1.113883.10.20.24.2.2).
2. SHALL contain exactly one [1..1] templateId (CONF:4484-21175) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.2.4" (CONF:4484-21177).
   2. SHALL contain exactly one [1..1] @extension="2020-12-01" (CONF:4484-21398).
3. SHALL contain at least one [1..\*] entry (CONF:4484-21181) such that it
   1. SHALL contain exactly one [1..1] [Improvement Activity Performed Measure Reference and Results](#E_Improvement_Activity_Performed_Measur) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.33:2016-09-01) (CONF:4484-21436).
4. SHALL contain exactly one [1..1] entry (CONF:4484-26558) such that it
   1. SHALL contain exactly one [1..1] [Reporting Parameters Act (V2)](#E_Reporting_Parameters_Act_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.17.3.8:2020-12-01) (CONF:4484-26559).

Figure 11: Improvement Activity Section (V3) Example

<component>

<section>

<!-- Measure Section -->

<templateId root="2.16.840.1.113883.10.20.24.2.2"/>

<!-- Improvement Activity Section (V3) -->

<templateId root="2.16.840.1.113883.10.20.27.2.4" extension="2020-12-01"/>

<code code="55186-1" codeSystem="2.16.840.1.113883.6.1" displayName="Measure Section"/>

<title>Measure Section (V3)</title>

<text>

...

</text>

<entry>

<!-- Improvement Activity Performed Reference and Results -->

<organizer classCode="CLUSTER" moodCode="EVN">

...

</organizer>

</entry>

<entry>

<act>

<!--Reporting Parameters Act (V2) -->

...

</act>

</entry>

</section>

</component>

Promoting Interoperability Measure Section (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.27.2.5:2020-12-01 (open)]

Table 7: Promoting Interoperability Measure Section (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [QRDA Category III Report (V5)](#D_QRDA_Category_III_Report_V5) (optional) | [Promoting Interoperability Measure Performed Measure Reference and Results](#E_Promoting_Interoperability_Measure_Pe) (optional)  [Promoting Interoperability Numerator Denominator Type Measure Reference and Results (V2)](#E_Promoting_Interoperability_Numer_) (optional)  [Reporting Parameters Act (V2)](#E_Reporting_Parameters_Act_V2) (required) |

This section references the Promoting Interoperability measures being reported. Promoting Interoperability measures promote patient engagement and electronic exchange of information using certified electronic health record technology (CEHRT). A Promoting Interoperability measure maybe a boolean type of measure that indicates the measure is met or not met or a proportion measure that reports numerator and denominator counts.

Table 8: Promoting Interoperability Measure Section (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.5:2020-12-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4484-21231](#C_4484-21231) |  |
| @root | 1..1 | SHALL |  | [4484-21233](#C_4484-21233) | 2.16.840.1.113883.10.20.27.2.5 |
| @extension | 1..1 | SHALL |  | [4484-21395](#C_4484-21395) | 2020-12-01 |
| entry | 0..\* | MAY |  | [4484-21380](#C_4484-21380) |  |
| organizer | 1..1 | SHALL |  | [4484-21381](#C_4484-21381) | [Promoting Interoperability Numerator Denominator Type Measure Reference and Results (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.28:2017-06-01](#E_Promoting_Interoperability_Numer_)) |
| entry | 0..\* | MAY |  | [4484-21315](#C_4484-21315) |  |
| organizer | 1..1 | SHALL |  | [4484-21437](#C_4484-21437) | [Promoting Interoperability Measure Performed Measure Reference and Results (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.29:2016-09-01](#E_Promoting_Interoperability_Measure_Pe)) |
| entry | 1..1 | SHALL |  | [4484-21440](#C_4484-21440) |  |
| act | 1..1 | SHALL |  | [4484-21441](#C_4484-21441) | [Reporting Parameters Act (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.17.3.8:2020-12-01](#E_Reporting_Parameters_Act_V2)) |
| entry | 1..\* | SHALL |  | [4484-21438](#C_4484-21438) |  |

1. Conforms to [Measure Section](#S_Measure_Section) template (identifier: urn:oid:2.16.840.1.113883.10.20.24.2.2).
2. SHALL contain exactly one [1..1] templateId (CONF:4484-21231) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.2.5" (CONF:4484-21233).
   2. SHALL contain exactly one [1..1] @extension="2020-12-01" (CONF:4484-21395).
3. MAY contain zero or more [0..\*] entry (CONF:4484-21380) such that it
   1. SHALL contain exactly one [1..1] [Promoting Interoperability Numerator Denominator Type Measure Reference and Results (V2)](#E_Promoting_Interoperability_Numer_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.28:2017-06-01) (CONF:4484-21381).
4. MAY contain zero or more [0..\*] entry (CONF:4484-21315) such that it
   1. SHALL contain exactly one [1..1] [Promoting Interoperability Measure Performed Measure Reference and Results](#E_Promoting_Interoperability_Measure_Pe) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.29:2016-09-01) (CONF:4484-21437).
5. SHALL contain exactly one [1..1] entry (CONF:4484-21440) such that it
   1. SHALL contain exactly one [1..1] [Reporting Parameters Act (V2)](#E_Reporting_Parameters_Act_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.17.3.8:2020-12-01) (CONF:4484-21441).
6. SHALL contain at least one [1..\*] entry (CONF:4484-21438).
   1. This Promoting Interoperability Measure Section SHALL contain at least a Promoting Interoperability Numerator Denominator Type Measure Reference and Results or a Promoting Interoperability Measure Performed Reference and Results (CONF:4484-21439).

Figure 12: Promoting Interoperability Measure Section (V3) Example

<component>

<!-- Measure Section -->

<templateId root="2.16.840.1.113883.10.20.24.2.2"/>

<!-- Promoting Interoperability Measure Section (V3) -->

<templateId root="2.16.840.1.113883.10.20.27.2.5" extension="2020-12-01"/>

<code code="55186-1" codeSystem="2.16.840.1.113883.6.1" displayName="Measure Section"/>

<title>Measure Section</title>

<text>

...

</text>

<entry>

<organizer>

<!-- Promoting Interoperability Numerator Denominator Type Measure Reference and Results -->

...

</organizer>

</entry>

<entry>

<organizer>

<!-- Promoting Interoperability Measure Performed Measure Reference and Result -->

...

</organizer>

</entry>

<entry>

<act>

<!-- Reporting Parameters Act (V2) -->

...

</act>

</entry>

</component>

QRDA Category III Measure Section (V5)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.27.2.1:2020-12-01 (open)]

Table 9: QRDA Category III Measure Section (V5) Contexts

| Contained By: | Contains: |
| --- | --- |
| [QRDA Category III Report (V5)](#D_QRDA_Category_III_Report_V5) (optional) | [Measure Reference and Results (V4)](#E_Measure_Reference_and_Results_V4) (required)  [Reporting Parameters Act (V2)](#E_Reporting_Parameters_Act_V2) (required) |

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).

Table 10: QRDA Category III Measure Section (V5) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.1:2020-12-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4484-17284](#C_4484-17284) |  |
| @root | 1..1 | SHALL |  | [4484-17285](#C_4484-17285) | 2.16.840.1.113883.10.20.27.2.1 |
| @extension | 1..1 | SHALL |  | [4484-21171](#C_4484-21171) | 2020-12-01 |
| entry | 1..\* | SHALL |  | [4484-17906](#C_4484-17906) |  |
| organizer | 1..1 | SHALL |  | [4484-17907](#C_4484-17907) | [Measure Reference and Results (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.1:2020-12-01](#E_Measure_Reference_and_Results_V4)) |
| entry | 1..1 | SHALL |  | [4484-21467](#C_4484-21467) |  |
| act | 1..1 | SHALL |  | [4484-21468](#C_4484-21468) | [Reporting Parameters Act (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.17.3.8:2020-12-01](#E_Reporting_Parameters_Act_V2)) |

1. Conforms to [Measure Section](#S_Measure_Section) template (identifier: urn:oid:2.16.840.1.113883.10.20.24.2.2).
2. SHALL contain exactly one [1..1] templateId (CONF:4484-17284) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.2.1" (CONF:4484-17285).
   2. SHALL contain exactly one [1..1] @extension="2020-12-01" (CONF:4484-21171).
3. SHALL contain at least one [1..\*] entry (CONF:4484-17906) such that it
   1. SHALL contain exactly one [1..1] [Measure Reference and Results (V4)](#E_Measure_Reference_and_Results_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.1:2020-12-01) (CONF:4484-17907).
4. SHALL contain exactly one [1..1] entry (CONF:4484-21467) such that it
   1. SHALL contain exactly one [1..1] [Reporting Parameters Act (V2)](#E_Reporting_Parameters_Act_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.17.3.8:2020-12-01) (CONF:4484-21468).

Figure 13: QRDA Category III Measure Section (V5) Example

<component>

<section>

<templateId root="2.16.840.1.113883.10.20.24.2.2"/>

<templateId root="2.16.840.1.113883.10.20.27.2.1" extension=”2020-12-01”/>

<code code="55186-1" codeSystem="2.16.840.1.113883.6.1"/>

<title>Measure Section</title>

<text>

...

</text>

<entry>

<!-- Measure Reference and Results (V4) -->

<organizer classCode="CLUSTER" moodCode="EVN">

...

</organizer>

</entry>

</section>

</component>

# entry

Aggregate Count

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

Table 11: Aggregate Count Contexts

| Contained By: | Contains: |
| --- | --- |
| [Reporting Stratum](#E_Reporting_Stratum) (required)  [Payer Supplemental Data Element (V2)](#E_Payer_Supplemental_Data_Element_V2) (required)  [Promoting Interoperability Numerator Denominator Type Measure Numerator Data](#E_Promoting_Interoperability_Numerator_) (required)  [Promoting Interoperability Numerator Denominator Type Measure Denominator Data](#E_Promoting_Interoperability_Numera) (required)  [Sex Supplemental Data Element (V3)](#E_Sex_Supplemental_Data_Element_V3) (required)  [Measure Data (V3)](#E_Measure_Data_V3) (required)  [Ethnicity Supplemental Data Element (V2)](#E_Ethnicity_Supplemental_Data_Element_V2) (required)  [Postal Code Supplemental Data Element (V2)](#E_Postal_Code_Supplemental_Data_Element_) (required)  [Race Supplemental Data Element (V2)](#E_Race_Supplemental_Data_Element_V2) (required) |  |

The Aggregate Count captures the number of items aggregated. This template is contained in a parent template that describes the item. If the parent template is a supplemental data element, the count is sent only when the number is not zero. Otherwise, the count is sent even if the number is zero. The predicted count (based on the measure's risk-adjustment model) can be captured in the reference range.

Table 12: Aggregate Count Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3) | | | | | |
| @classCode | 1..1 | SHALL |  | [77-17563](#C_77-17563) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [77-17564](#C_77-17564) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [77-17565](#C_77-17565) |  |
| @root | 1..1 | SHALL |  | [77-18095](#C_77-18095) | 2.16.840.1.113883.10.20.27.3.3 |
| code | 1..1 | SHALL |  | [77-17566](#C_77-17566) |  |
| @code | 1..1 | SHALL |  | [77-19508](#C_77-19508) | MSRAGG |
| @codeSystem | 1..1 | SHALL |  | [77-21160](#C_77-21160) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| value | 1..1 | SHALL | INT | [77-17567](#C_77-17567) |  |
| @value | 1..1 | SHALL |  | [77-17568](#C_77-17568) |  |
| methodCode | 1..1 | SHALL |  | [77-19509](#C_77-19509) |  |
| @code | 1..1 | SHALL |  | [77-19510](#C_77-19510) | COUNT |
| @codeSystem | 1..1 | SHALL |  | [77-21161](#C_77-21161) | urn:oid:2.16.840.1.113883.5.84 (HL7ObservationMethod) = 2.16.840.1.113883.5.84 |
| referenceRange | 0..1 | MAY |  | [77-18392](#C_77-18392) |  |
| observationRange | 1..1 | SHALL |  | [77-18393](#C_77-18393) |  |
| value | 1..1 | SHALL | INT | [77-18394](#C_77-18394) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:77-17563).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:77-17564).
3. SHALL contain exactly one [1..1] templateId (CONF:77-17565) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.3" (CONF:77-18095).
4. SHALL contain exactly one [1..1] code (CONF:77-17566).
   1. This code SHALL contain exactly one [1..1] @code="MSRAGG" rate aggregation (CONF:77-19508).
   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:77-21160).
5. SHALL contain exactly one [1..1] value with @xsi:type="INT" (CONF:77-17567).
   1. This value SHALL contain exactly one [1..1] @value (CONF:77-17568).
6. SHALL contain exactly one [1..1] methodCode (CONF:77-19509).
   1. This methodCode SHALL contain exactly one [1..1] @code="COUNT" Count (CONF:77-19510).
   2. This methodCode SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.84" (CodeSystem: HL7ObservationMethod urn:oid:2.16.840.1.113883.5.84) (CONF:77-21161).

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

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

Figure 14: Aggregate Count Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.27.3.3"/>

<code code="MSRAGG"

displayName="rate aggregation"

codeSystem="2.16.840.1.113883.5.4"

codeSystemName="ActCode"/>

<value xsi:type="INT" value="1000"/>

<methodCode code="COUNT"

displayName="Count"

codeSystem="2.16.840.1.113883.5.84"

codeSystemName="ObservationMethod"/>

<referenceRange>

<observationRange>

<value xsi:type="INT" value="300"/>

</observationRange>

</referenceRange>

</observation>

Continuous Variable Measure Value

[observation: identifier urn:oid:2.16.840.1.113883.10.20.27.3.2 (open)]

Table 13: Continuous Variable Measure Value Contexts

| Contained By: | Contains: |
| --- | --- |
| [Reporting Stratum](#E_Reporting_Stratum) (optional)  [Measure Data (V3)](#E_Measure_Data_V3) (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. The predicted value (based on the measure's risk-adjustment model) can be captured in the reference range.

Table 14: Continuous Variable Measure Value Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.2) | | | | | |
| @classCode | 1..1 | SHALL |  | [77-17569](#C_77-17569) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [77-17570](#C_77-17570) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [77-18096](#C_77-18096) |  |
| @root | 1..1 | SHALL |  | [77-18097](#C_77-18097) | 2.16.840.1.113883.10.20.27.3.2 |
| code | 1..1 | SHALL |  | [77-17571](#C_77-17571) |  |
| value | 1..1 | SHALL |  | [77-17572](#C_77-17572) |  |
| methodCode | 1..1 | SHALL |  | [77-18242](#C_77-18242) | urn:oid:2.16.840.1.113883.1.11.20450 (ObservationMethodAggregate) |
| reference | 1..1 | SHALL |  | [77-18243](#C_77-18243) |  |
| externalObservation | 1..1 | SHALL |  | [77-18244](#C_77-18244) |  |
| id | 1..1 | SHALL |  | [77-18245](#C_77-18245) |  |
| referenceRange | 0..1 | MAY |  | [77-18389](#C_77-18389) |  |
| observationRange | 1..1 | SHALL |  | [77-18390](#C_77-18390) |  |
| value | 1..1 | SHALL |  | [77-18391](#C_77-18391) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:77-17569).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:77-17570).
3. SHALL contain exactly one [1..1] templateId (CONF:77-18096) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.2" (CONF:77-18097).
4. SHALL contain exactly one [1..1] code (CONF:77-17571).
   1. If this continuous variable measure references an eCQM, this code element SHALL equal the code element in that eCQM's measure observation definition (CONF:77-18256).
5. SHALL contain exactly one [1..1] value (CONF:77-17572).
6. SHALL contain exactly one [1..1] methodCode, which SHALL be selected from ValueSet [ObservationMethodAggregate](#ObservationMethodAggregate) urn:oid:2.16.840.1.113883.1.11.20450 DYNAMIC (CONF:77-18242).
7. SHALL contain exactly one [1..1] reference (CONF:77-18243).
   1. This reference SHALL contain exactly one [1..1] externalObservation (CONF:77-18244).
      1. This externalObservation SHALL contain exactly one [1..1] id (CONF:77-18245).
         1. If this reference is to an eCQM, this id SHALL equal the id in that eCQM's measure observation definition (CONF:77-18255).

The reference range is optionally used to represent the predicted continuous variable value based on the measure’s risk-adjustment model.

1. MAY contain zero or one [0..1] referenceRange (CONF:77-18389).
   1. The referenceRange, if present, SHALL contain exactly one [1..1] observationRange (CONF:77-18390).
      1. This observationRange SHALL contain exactly one [1..1] value (CONF:77-18391).

Figure 15: Continuous Variable Measure Value Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.27.3.2"/>

<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 typeCode="REFR">

<!-- reference to the relevant measure observation in the eCQM-->

<externalObservation classCode="OBS" moodCode="EVN">

<id root="B877EFED-B7CC-4B81-805E-D159A93204E1"/>

</externalObservation>

</reference>

</observation>

Figure 16: Corresponding eCQM Example

<!-- Example HQMF snippet from eCQM CMS111v9 -->

<measureObservationDefinition classCode="OBS" moodCode="DEF">

<id extension="MEDIAN Of MeasureObservation"

root="B877EFED-B7CC-4B81-805E-D159A93204E1"/>

<code code="AGGREGATE" codeSystem="2.16.840.1.113883.5.4"/>

<value nullFlavor="DER" xsi:type="INT">

<expression value="MedianAdmitDecisionTimetoEDDepartureTimeforAdmittedPatients.&quot;MeasureObservation&quot;"/>

</value>

<methodCode>

<item code="MEDIAN" codeSystem="2.16.840.1.113883.5.84"/>

</methodCode>

<component typeCode="COMP">

<criteriaReference classCode="OBS" moodCode="EVN">

<id extension="measurePopulation" root="6D9174A2-ED80-4CF0-8BFB-DDBBB717298A"/>

</criteriaReference>

</component>

</measureObservationDefinition>

Ethnicity Supplemental Data Element (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.27.3.7:2016-09-01 (open)]

Table 15: Ethnicity Supplemental Data Element (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Measure Data (V3)](#E_Measure_Data_V3) (optional) | [Aggregate Count](#E_Aggregate_Count) (required) |

This observation represents whether the patient is hispanic or not and provides the number of patients in the population that report that ethnicity.

Table 16: Ethnicity Supplemental Data Element (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.7:2016-09-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3259-18216](#C_3259-18216) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3259-18217](#C_3259-18217) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3259-18218](#C_3259-18218) |  |
| @root | 1..1 | SHALL |  | [3259-18219](#C_3259-18219) | 2.16.840.1.113883.10.20.27.3.7 |
| @extension | 1..1 | SHALL |  | [3259-21176](#C_3259-21176) | 2016-09-01 |
| code | 1..1 | SHALL |  | [3259-18220](#C_3259-18220) |  |
| @code | 1..1 | SHALL |  | [3259-18221](#C_3259-18221) | 69490-1 |
| @codeSystem | 1..1 | SHALL |  | [3259-21443](#C_3259-21443) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [3259-18118](#C_3259-18118) |  |
| @code | 1..1 | SHALL |  | [3259-18119](#C_3259-18119) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [3259-18222](#C_3259-18222) | urn:oid:2.16.840.1.114222.4.11.837 (Ethnicity) |
| entryRelationship | 1..1 | SHALL |  | [3259-18120](#C_3259-18120) |  |
| @typeCode | 1..1 | SHALL |  | [3259-18121](#C_3259-18121) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| @inversionInd | 1..1 | SHALL |  | [3259-18122](#C_3259-18122) | true |
| observation | 1..1 | SHALL |  | [3259-18123](#C_3259-18123) | [Aggregate Count (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3](#E_Aggregate_Count) |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3259-18216).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:3259-18217).
3. SHALL contain exactly one [1..1] templateId (CONF:3259-18218) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.7" (CONF:3259-18219).
   2. SHALL contain exactly one [1..1] @extension="2016-09-01" (CONF:3259-21176).
4. SHALL contain exactly one [1..1] code (CONF:3259-18220).
   1. This code SHALL contain exactly one [1..1] @code="69490-1" Ethnicity (CONF:3259-18221).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3259-21443).
5. SHALL contain exactly one [1..1] statusCode (CONF:3259-18118).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:3259-18119).
6. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet [Ethnicity](#Ethnicity) urn:oid:2.16.840.1.114222.4.11.837 DYNAMIC (CONF:3259-18222).
7. SHALL contain exactly one [1..1] entryRelationship (CONF:3259-18120) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:3259-18121).
   2. SHALL contain exactly one [1..1] @inversionInd="true" (CONF:3259-18122).
   3. SHALL contain exactly one [1..1] [Aggregate Count](#E_Aggregate_Count) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3) (CONF:3259-18123).

Figure 17: Ethnicity Supplemental Data Element (V2) Example

<observation classCode="OBS" moodCode="EVN">

<!-- Ethnicity Supplemental Data Element (V2) -->

<templateId root="2.16.840.1.113883.10.20.27.3.7" extension="2016-09-01"/>

<code code="69490-1"

displayName="Ethnicity"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"/>

<statusCode code="completed"/>

<value xsi:type="CD"

code="2186-5"

displayName="Not Hispanic or Latino"

codeSystem="2.16.840.1.113883.6.238"

codeSystemName="Race &amp; Ethnicity - CDC"/>

<!-- Aggregate Count template -->

<entryRelationship typeCode="SUBJ" inversionInd="true">

<observation classCode="OBS" moodCode="EVN">

...

</observation>

</entryRelationship>

</observation>

Measure Data (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.27.3.5:2016-09-01 (open)]

Table 17: Measure Data (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Measure Reference and Results (V4)](#E_Measure_Reference_and_Results_V4) (required) | [Aggregate Count](#E_Aggregate_Count) (required)  [Continuous Variable Measure Value](#E_Continuous_Variable_Measure_Value) (optional)  [Reporting Stratum](#E_Reporting_Stratum) (optional)  [Payer Supplemental Data Element (V2)](#E_Payer_Supplemental_Data_Element_V2) (optional)  [Sex Supplemental Data Element (V3)](#E_Sex_Supplemental_Data_Element_V3) (optional)  [Ethnicity Supplemental Data Element (V2)](#E_Ethnicity_Supplemental_Data_Element_V2) (optional)  [Postal Code Supplemental Data Element (V2)](#E_Postal_Code_Supplemental_Data_Element_) (optional)  [Race Supplemental Data Element (V2)](#E_Race_Supplemental_Data_Element_V2) (optional) |

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.

Additional supplemental data elements can be added if defined in the query or measure or requested by the recipient. The reporting stratum and various supplemental data templates provide examples that can be followed.

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 (for example, 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.

Table 18: Measure Data (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.5:2016-09-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3259-17615](#C_3259-17615) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3259-17616](#C_3259-17616) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3259-17912](#C_3259-17912) |  |
| @root | 1..1 | SHALL |  | [3259-17913](#C_3259-17913) | 2.16.840.1.113883.10.20.27.3.5 |
| @extension | 1..1 | SHALL |  | [3259-21161](#C_3259-21161) | 2016-09-01 |
| code | 1..1 | SHALL |  | [3259-17617](#C_3259-17617) |  |
| @code | 1..1 | SHALL |  | [3259-18198](#C_3259-18198) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [3259-21164](#C_3259-21164) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [3259-18199](#C_3259-18199) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) |
| @code | 1..1 | SHALL |  | [3259-19555](#C_3259-19555) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [3259-17618](#C_3259-17618) |  |
| @code | 1..1 | SHALL |  | [3259-21162](#C_3259-21162) | urn:oid:2.16.840.1.113883.1.11.20476 (PopulationInclusionObservationType) |
| entryRelationship | 1..1 | SHALL |  | [3259-17619](#C_3259-17619) |  |
| @typeCode | 1..1 | SHALL |  | [3259-17910](#C_3259-17910) | SUBJ |
| @inversionInd | 1..1 | SHALL |  | [3259-17911](#C_3259-17911) | true |
| observation | 1..1 | SHALL |  | [3259-17620](#C_3259-17620) | [Aggregate Count (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3](#E_Aggregate_Count)) |
| entryRelationship | 0..\* | MAY |  | [3259-17918](#C_3259-17918) |  |
| @typeCode | 1..1 | SHALL |  | [3259-17919](#C_3259-17919) | COMP |
| observation | 1..1 | SHALL |  | [3259-17920](#C_3259-17920) | [Reporting Stratum (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.4](#E_Reporting_Stratum)) |
| entryRelationship | 0..\* | MAY |  | [3259-18136](#C_3259-18136) |  |
| @typeCode | 1..1 | SHALL |  | [3259-18137](#C_3259-18137) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [3259-18138](#C_3259-18138) | [Sex Supplemental Data Element (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.6:2016-09-01](#E_Sex_Supplemental_Data_Element_V3)) |
| entryRelationship | 0..\* | MAY |  | [3259-18139](#C_3259-18139) |  |
| @typeCode | 1..1 | SHALL |  | [3259-18144](#C_3259-18144) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [3259-18149](#C_3259-18149) | [Ethnicity Supplemental Data Element (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.7:2016-09-01](#E_Ethnicity_Supplemental_Data_Element_V2)) |
| entryRelationship | 0..\* | MAY |  | [3259-18140](#C_3259-18140) |  |
| @typeCode | 1..1 | SHALL |  | [3259-18145](#C_3259-18145) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [3259-18150](#C_3259-18150) | [Race Supplemental Data Element (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.8:2016-09-01](#E_Race_Supplemental_Data_Element_V2)) |
| entryRelationship | 0..\* | MAY |  | [3259-18141](#C_3259-18141) |  |
| @typeCode | 1..1 | SHALL |  | [3259-18146](#C_3259-18146) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [3259-18151](#C_3259-18151) | [Payer Supplemental Data Element (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.9:2016-02-01](#E_Payer_Supplemental_Data_Element_V2)) |
| entryRelationship | 0..\* | MAY |  | [3259-18142](#C_3259-18142) |  |
| @typeCode | 1..1 | SHALL |  | [3259-18147](#C_3259-18147) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [3259-18152](#C_3259-18152) | [Postal Code Supplemental Data Element (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.10:2016-09-01](#E_Postal_Code_Supplemental_Data_Element_)) |
| entryRelationship | 0..\* | MAY |  | [3259-18143](#C_3259-18143) |  |
| @typeCode | 1..1 | SHALL |  | [3259-18148](#C_3259-18148) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [3259-18153](#C_3259-18153) | [Continuous Variable Measure Value (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.2](#E_Continuous_Variable_Measure_Value)) |
| reference | 1..1 | SHALL |  | [3259-18239](#C_3259-18239) |  |
| externalObservation | 1..1 | SHALL |  | [3259-18240](#C_3259-18240) |  |
| id | 1..1 | SHALL |  | [3259-18241](#C_3259-18241) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3259-17615).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:3259-17616).
3. SHALL contain exactly one [1..1] templateId (CONF:3259-17912) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.5" (CONF:3259-17913).
   2. SHALL contain exactly one [1..1] @extension="2016-09-01" (CONF:3259-21161).
4. SHALL contain exactly one [1..1] code (CONF:3259-17617).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:3259-18198).
   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:3259-21164).
5. SHALL contain exactly one [1..1] statusCode (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:3259-18199).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3259-19555).
6. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3259-17618).
   1. This value SHALL contain exactly one [1..1] @code, which SHOULD be selected from ValueSet [PopulationInclusionObservationType](#PopulationInclusionObservationType) urn:oid:2.16.840.1.113883.1.11.20476 DYNAMIC (CONF:3259-21162).
7. SHALL contain exactly one [1..1] entryRelationship (CONF:3259-17619) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" (CONF:3259-17910).
   2. SHALL contain exactly one [1..1] @inversionInd="true" (CONF:3259-17911).
   3. SHALL contain exactly one [1..1] [Aggregate Count](#E_Aggregate_Count) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3) (CONF:3259-17620).
8. MAY contain zero or more [0..\*] entryRelationship (CONF:3259-17918) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:3259-17919).
   2. SHALL contain exactly one [1..1] [Reporting Stratum](#E_Reporting_Stratum) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.4) (CONF:3259-17920).
9. MAY contain zero or more [0..\*] entryRelationship (CONF:3259-18136) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:3259-18137).
   2. SHALL contain exactly one [1..1] [Sex Supplemental Data Element (V3)](#E_Sex_Supplemental_Data_Element_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.6:2016-09-01) (CONF:3259-18138).
10. MAY contain zero or more [0..\*] entryRelationship (CONF:3259-18139) such that it
    1. SHALL contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:3259-18144).
    2. SHALL contain exactly one [1..1] [Ethnicity Supplemental Data Element (V2)](#E_Ethnicity_Supplemental_Data_Element_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.7:2016-09-01) (CONF:3259-18149).
11. MAY contain zero or more [0..\*] entryRelationship (CONF:3259-18140) such that it
    1. SHALL contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:3259-18145).
    2. SHALL contain exactly one [1..1] [Race Supplemental Data Element (V2)](#E_Race_Supplemental_Data_Element_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.8:2016-09-01) (CONF:3259-18150).
12. MAY contain zero or more [0..\*] entryRelationship (CONF:3259-18141) such that it
    1. SHALL contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:3259-18146).
    2. SHALL contain exactly one [1..1] [Payer Supplemental Data Element (V2)](#E_Payer_Supplemental_Data_Element_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.9:2016-02-01) (CONF:3259-18151).
13. MAY contain zero or more [0..\*] entryRelationship (CONF:3259-18142) such that it
    1. SHALL contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:3259-18147).
    2. SHALL contain exactly one [1..1] [Postal Code Supplemental Data Element (V2)](#E_Postal_Code_Supplemental_Data_Element_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.10:2016-09-01) (CONF:3259-18152).

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

1. MAY contain zero or more [0..\*] entryRelationship (CONF:3259-18143) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:3259-18148).
   2. SHALL contain exactly one [1..1] [Continuous Variable Measure Value](#E_Continuous_Variable_Measure_Value) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.2) (CONF:3259-18153).
2. SHALL contain exactly one [1..1] reference (CONF:3259-18239) such that it
   1. SHALL contain exactly one [1..1] externalObservation (CONF:3259-18240).
      1. This externalObservation SHALL contain exactly one [1..1] id (CONF:3259-18241).
         1. If this reference is to an eCQM, this id SHALL equal the id defined in the corresponding eCQM population criteria section (CONF:3259-18258).

Figure 18: Measure Data (V3) Example

<observation classCode="OBS" moodCode="EVN">

<!-- Measure Data template -->

<templateId root="2.16.840.1.113883.10.20.27.3.5" extension="2016-09-01"/>

<code code="ASSERTION"

codeSystem="2.16.840.1.113883.5.4"

displayName="Assertion"

codeSystemName="ActCode"/>

<statusCode code="completed"/>

<value xsi:type="CD" code="IPOP"

codeSystem="2.16.840.1.113883.5.4"

displayName="initial population"

codeSystemName="ActCode"/>

<!-- Aggregate Count template -->

<entryRelationship typeCode="SUBJ" inversionInd="true">

<observation classCode="OBS" moodCode="EVN">

...

</observation>

</entryRelationship>

<entryRelationship typeCode="COMP">

<!-- Sex Supplemental Data Element (V2) -->

<observation classCode="OBS" moodCode="EVN">

...

</observation>

</entryRelationship>

<entryRelationship typeCode="COMP">

<!-- Ethnicity Supplemental Data Element (V2) -->

<observation classCode="OBS" moodCode="EVN">

...

</observation>

</entryRelationship>

<entryRelationship typeCode="COMP">

<entryRelationship typeCode="COMP">

<!-- Race Supplemental Data Element (V2) -->

<observation classCode="OBS" moodCode="EVN">

...

</observation>

</entryRelationship>

<entryRelationship typeCode="COMP">

<!-- Payer Supplemental Data Element (V2) -->

<observation classCode="OBS" moodCode="EVN">

...

</observation>

</entryRelationship>

<reference typeCode="REFR">

<!-- reference to the relevant population in the eCQM-->

<externalObservation classCode="OBS" moodCode="EVN">

<id root="EAD808CB-A6FA-4824-A204-74F299839396"/>

</externalObservation>

</reference>

</observation>

Figure 19: Corresponding eCQM Example

<!-- This is an HQMF snippet from eCQM CMS154v9 -->

<initialPopulationCriteria classCode="OBS" moodCode="EVN">

<id extension="initialPopulation" root="D4AD84B2-546B-46FB-A588-9216E6CAC5B6"/>

<code code="IPOP" codeSystem="2.16.840.1.113883.5.4" codeSystemName="Act Code"/>

<precondition typeCode="PRCN">

<criteriaReference classCode="OBS" moodCode="EVN">

<id extension="AppropriateTreatmentforUpperRespiratoryInfectionURI.&quot;Initial Population&quot;" root="703BD73F-AD41-4A80-A26F-56AC087EA788"/>

</criteriaReference>

</precondition>

</initialPopulationCriteria>

Measure Performed

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

Table 19: Measure Performed Contexts

| Contained By: | Contains: |
| --- | --- |
| [Promoting Interoperability Measure Performed Measure Reference and Results](#E_Promoting_Interoperability_Measure_Pe) (required)  [Improvement Activity Performed Measure Reference and Results](#E_Improvement_Activity_Performed_Measur) (required) |  |

This template reports whether a measurement was performed or not.

Table 20: Measure Performed Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.27:2016-09-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3259-21221](#C_3259-21221) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3259-21222](#C_3259-21222) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3259-21185](#C_3259-21185) |  |
| @root | 1..1 | SHALL |  | [3259-21203](#C_3259-21203) | 2.16.840.1.113883.10.20.27.3.27 |
| @extension | 1..1 | SHALL |  | [3259-21399](#C_3259-21399) | 2016-09-01 |
| code | 1..1 | SHALL |  | [3259-21382](#C_3259-21382) |  |
| @code | 1..1 | SHALL |  | [3259-21392](#C_3259-21392) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [3259-21393](#C_3259-21393) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [3259-21440](#C_3259-21440) |  |
| @code | 1..1 | SHALL |  | [3259-21442](#C_3259-21442) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [3259-21391](#C_3259-21391) | urn:oid:2.16.840.1.114222.4.11.819 (Yes No Indicator (HL7)) |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3259-21221).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:3259-21222).
3. SHALL contain exactly one [1..1] templateId (CONF:3259-21185) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.27" (CONF:3259-21203).
   2. SHALL contain exactly one [1..1] @extension="2016-09-01" (CONF:3259-21399).
4. SHALL contain exactly one [1..1] code (CONF:3259-21382).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:3259-21392).
   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:3259-21393).
5. SHALL contain exactly one [1..1] statusCode (CONF:3259-21440).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3259-21442).
6. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet [Yes No Indicator (HL7)](#Yes_No_Indicator_HL7) urn:oid:2.16.840.1.114222.4.11.819 DYNAMIC (CONF:3259-21391).

Figure 20: Measure Performed Example

<observation classCode="OBS" moodCode="EVN">

<!-- Measure Performed Reference and Result -->

<templateId root="2.16.840.1.113883.10.20.27.3.27" extension="2016-09-01"/>

<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" codeSystemName="ActCode" displayName="Assertion"/>

<statusCode code="completed"/>

<value xsi:type="CD" code="Y" displayName="Yes"

codeSystemName="Yes/no indicator (HL7 Table 0136)" codeSystem="2.16.840.1.113883.12.136"/>

</observation>

Measure Reference

[organizer: identifier urn:oid:2.16.840.1.113883.10.20.24.3.98 (open)]

Table 21: Measure Reference Contexts

| Contained By: | Contains: |
| --- | --- |
| [Measure Section](#S_Measure_Section) (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.

Table 22: Measure Reference Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| organizer (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.98) | | | | | |
| @classCode | 1..1 | SHALL |  | [67-12979](#C_67-12979) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER |
| @moodCode | 1..1 | SHALL |  | [67-12980](#C_67-12980) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [67-19532](#C_67-19532) |  |
| @root | 1..1 | SHALL |  | [67-19533](#C_67-19533) | 2.16.840.1.113883.10.20.24.3.98 |
| id | 1..\* | SHALL |  | [67-26992](#C_67-26992) |  |
| statusCode | 1..1 | SHALL |  | [67-12981](#C_67-12981) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) |
| @code | 1..1 | SHALL |  | [67-27020](#C_67-27020) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| reference | 1..1 | SHALL |  | [67-12982](#C_67-12982) |  |
| @typeCode | 1..1 | SHALL |  | [67-12983](#C_67-12983) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| externalDocument | 1..1 | SHALL |  | [67-12984](#C_67-12984) |  |
| @classCode | 1..1 | SHALL |  | [67-19534](#C_67-19534) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = DOC |
| id | 1..\* | SHALL |  | [67-12985](#C_67-12985) |  |
| @root | 1..1 | SHALL |  | [67-12986](#C_67-12986) |  |
| @extension | 0..1 | MAY |  | [67-27007](#C_67-27007) |  |
| text | 0..1 | SHOULD |  | [67-12997](#C_67-12997) |  |

1. SHALL contain exactly one [1..1] @classCode="CLUSTER" cluster (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:67-12979).
2. SHALL contain exactly one [1..1] @moodCode="EVN" event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:67-12980).
3. SHALL contain exactly one [1..1] templateId (CONF:67-19532) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.98" (CONF:67-19533).
4. SHALL contain at least one [1..\*] id (CONF:67-26992).
5. SHALL contain exactly one [1..1] statusCode (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:67-12981).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:67-27020).
6. SHALL contain exactly one [1..1] reference (CONF:67-12982) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:67-12983).
   2. SHALL contain exactly one [1..1] externalDocument (CONF:67-12984).
      1. This externalDocument SHALL contain exactly one [1..1] @classCode="DOC" Document (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:67-19534).
      2. This externalDocument SHALL contain at least one [1..\*] id (CONF:67-12985) such that it
         1. SHALL contain exactly one [1..1] @root (CONF:67-12986).
         2. MAY contain zero or one [0..1] @extension (CONF:67-27007).
         3. This ID references an ID of the Quality Measure (CONF:67-27008).
      3. This externalDocument SHOULD contain zero or one [0..1] text (CONF:67-12997).
         1. This text is the title of the Quality Measure (CONF:67-12998).

Figure 21: Measure Reference Example

<organizer classCode="CLUSTER" moodCode="EVN">

<!-- Measure reference -->

<templateId root="2.16.840.1.113883.10.20.24.3.98"/>

<statusCode code="completed"/>

<reference typeCode="REFR">

<externalDocument classCode="DOC" moodCode="EVN">

<!-- This is the eCQM version specific id for an eCQM -->

<id root="40280382-6240-b6b9-0162-4e22168a0727"/>

<!-- SHOULD This is the title of the eCQM-->

<text>Median Time from ED Arrival to ED Departure for Discharged ED Patients</text>

</externalDocument>

</reference>

</organizer>

Improvement Activity Performed Measure Reference and Results

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

Table 23: Improvement Activity Performed Measure Reference and Results Contexts

| Contained By: | Contains: |
| --- | --- |
| [Improvement Activity Section (V3)](#S_Improvement_Activity_Section_V3) (required) | [Measure Performed](#E_Measure_Performed) (required) |

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

Table 24: Improvement Activity Performed Measure Reference and Results Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.33:2016-09-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3259-21434](#C_3259-21434) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER |
| @moodCode | 1..1 | SHALL |  | [3259-21435](#C_3259-21435) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3259-21425](#C_3259-21425) |  |
| @root | 1..1 | SHALL |  | [3259-21432](#C_3259-21432) | 2.16.840.1.113883.10.20.27.3.33 |
| @extension | 1..1 | SHALL |  | [3259-21433](#C_3259-21433) | 2016-09-01 |
| reference | 1..1 | SHALL |  | [3259-21422](#C_3259-21422) |  |
| @typeCode | 1..1 | SHALL |  | [3259-21431](#C_3259-21431) | REFR |
| externalDocument | 1..1 | SHALL |  | [3259-21423](#C_3259-21423) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) |
| @classCode | 1..1 | SHALL |  | [3259-21430](#C_3259-21430) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = DOC |
| id | 1..1 | SHALL |  | [3259-21424](#C_3259-21424) |  |
| @root | 1..1 | SHALL |  | [3259-21427](#C_3259-21427) | 2.16.840.1.113883.3.7034 |
| @extension | 1..1 | SHALL |  | [3259-21428](#C_3259-21428) |  |
| text | 0..1 | SHOULD |  | [3259-21429](#C_3259-21429) |  |
| component | 1..1 | SHALL |  | [3259-21421](#C_3259-21421) |  |
| observation | 1..1 | SHALL |  | [3259-21426](#C_3259-21426) | [Measure Performed (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.27:2016-09-01](#E_Measure_Performed) |

1. Conforms to [Measure Reference](#E_Measure_Reference) template (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.98).
2. SHALL contain exactly one [1..1] @classCode="CLUSTER" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3259-21434).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:3259-21435).
4. SHALL contain exactly one [1..1] templateId (CONF:3259-21425) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.33" (CONF:3259-21432).
   2. SHALL contain exactly one [1..1] @extension="2016-09-01" (CONF:3259-21433).
5. SHALL contain exactly one [1..1] reference (CONF:3259-21422) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" (CONF:3259-21431).
   2. SHALL contain exactly one [1..1] externalDocument (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3259-21423).
      1. This externalDocument SHALL contain exactly one [1..1] @classCode="DOC" Document (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3259-21430).
      2. This externalDocument SHALL contain exactly one [1..1] id (CONF:3259-21424) such that it
         1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.3.7034" (CONF:3259-21427).  
            Note: This OID indicates that the @extension contains improvement activity identifier
         2. SHALL contain exactly one [1..1] @extension (CONF:3259-21428).  
            Note: This @extension is the value of improvement activity identifier

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

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

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

Figure 22: Improvement Activity Performed Reference and Results Example

<organizer classCode="CLUSTER" moodCode="EVN">

<!-- Measure Reference template -->

<templateId root="2.16.840.1.113883.10.20.24.3.98"/>

<!-- Improvement Activity Performed Reference and Results -->

<templateId root="2.16.840.1.113883.10.20.27.3.33" extension="2016-09-01"/>

<id root="ac575aef-7062-4ea2-b723-df517cfa470a"/>

<statusCode code="completed"/>

<reference typeCode="REFR">

<!-- Reference to a particular improvement activity's unique identifier. -->

<externalDocument classCode="DOC" moodCode="EVN">

<!-- extension is the unique identifier for an improvement activity. -->

<id root="2.16.840.1.113883.3.7034" extension="IA\_EPA\_2"/>

<!-- improvement activity title -->

<text>Use of telehealth services that expand practice access</</text>

</externalDocument>

</reference>

<component>

<!-- Measure Performed -->

...

</component>

</organizer>

Measure Reference and Results (V4)

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.27.3.1:2020-12-01 (open)]

Table 25: Measure Reference and Results (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [QRDA Category III Measure Section (V5)](#S_QRDA_Category_III_Measure_Section_V5) (required) | [Reporting Rate for Proportion Measure](#E_Reporting_Rate_for_Proportion_Measure) (optional)  [Measure Data (V3)](#E_Measure_Data_V3) (required)  [Performance Rate for Proportion Measure (V3)](#E_Performance_Rate_for_Proportion_v3) (optional) |

This template defines the way that a measure should be referenced. Measures are referenced through an external Act 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 26: Measure Reference and Results (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.1:2020-12-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4484-17887](#C_4484-17887) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER |
| @moodCode | 1..1 | SHALL |  | [4484-17888](#C_4484-17888) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4484-17908](#C_4484-17908) |  |
| @root | 1..1 | SHALL |  | [4484-17909](#C_4484-17909) | 2.16.840.1.113883.10.20.27.3.1 |
| @extension | 1..1 | SHALL |  | [4484-21170](#C_4484-21170) | 2020-12-01 |
| reference | 1..1 | SHALL |  | [4484-17890](#C_4484-17890) |  |
| @typeCode | 1..1 | SHALL |  | [4484-17891](#C_4484-17891) | REFR |
| externalDocument | 1..1 | SHALL |  | [4484-17892](#C_4484-17892) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) |
| @classCode | 1..1 | SHALL |  | [4484-19548](#C_4484-19548) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = DOC |
| id | 1..1 | SHALL |  | [4484-18192](#C_4484-18192) |  |
| @root | 1..1 | SHALL |  | [4484-18193](#C_4484-18193) | 2.16.840.1.113883.4.738 |
| @extension | 1..1 | SHALL |  | [4484-21169](#C_4484-21169) |  |
| code | 0..1 | SHOULD |  | [4484-17896](#C_4484-17896) | urn:oid:2.16.840.1.113883.6.1 (LOINC) |
| @code | 1..1 | SHALL |  | [4484-19553](#C_4484-19553) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 57024-2 |
| text | 0..1 | SHOULD |  | [4484-17897](#C_4484-17897) |  |
| setId | 0..1 | MAY |  | [4484-17899](#C_4484-17899) |  |
| versionNumber | 0..1 | MAY |  | [4484-17901](#C_4484-17901) |  |
| reference | 1..1 | SHOULD |  | [4484-18353](#C_4484-18353) |  |
| externalObservation | 1..1 | SHALL |  | [4484-18354](#C_4484-18354) |  |
| id | 1..\* | SHALL |  | [4484-18355](#C_4484-18355) |  |
| code | 1..1 | SHALL |  | [4484-18357](#C_4484-18357) | urn:oid:2.16.840.1.113883.6.1 (LOINC) |
| @code | 1..1 | SHALL |  | [4484-19554](#C_4484-19554) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 55185-3 |
| text | 1..1 | SHALL |  | [4484-18358](#C_4484-18358) |  |
| component | 0..\* | MAY |  | [4484-17903](#C_4484-17903) |  |
| observation | 1..1 | SHALL |  | [4484-17904](#C_4484-17904) | [Performance Rate for Proportion Measure (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.14:2020-12-01](#E_Performance_Rate_for_Proportion_v3)) |
| component | 0..\* | MAY |  | [4484-18423](#C_4484-18423) |  |
| observation | 1..1 | SHALL |  | [4484-18424](#C_4484-18424) | [Reporting Rate for Proportion Measure (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.15](#E_Reporting_Rate_for_Proportion_Measure)) |
| component | 1..\* | SHALL |  | [4484-18425](#C_4484-18425) |  |
| observation | 1..1 | SHALL |  | [4484-18426](#C_4484-18426) | [Measure Data (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.5:2016-09-01](#E_Measure_Data_V3)) |

1. Conforms to [Measure Reference](#E_Measure_Reference) template (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.98).
2. SHALL contain exactly one [1..1] @classCode="CLUSTER" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4484-17887).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4484-17888).
4. SHALL contain exactly one [1..1] templateId (CONF:4484-17908) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.1" (CONF:4484-17909).
   2. SHALL contain exactly one [1..1] @extension="2020-12-01" (CONF:4484-21170).
5. SHALL contain exactly one [1..1] reference (CONF:4484-17890) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" (CONF:4484-17891).
   2. SHALL contain exactly one [1..1] externalDocument (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4484-17892).
      1. This externalDocument SHALL contain exactly one [1..1] @classCode="DOC" Document (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4484-19548).
      2. This externalDocument SHALL contain exactly one [1..1] id (CONF:4484-18192) such that it
         1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.738" (CONF:4484-18193).  
            Note: This OID indicates that the @extension contains the version specific identifier for the eCQM
         2. SHALL contain exactly one [1..1] @extension (CONF:4484-21169).  
            Note: This @extension SHALL equal the version specific identifier for eCQM (i.e. QualityMeasureDocument/id)
      3. This externalDocument SHOULD contain zero or one [0..1] code (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 STATIC) (CONF:4484-17896).
         1. The code, if present, SHALL contain exactly one [1..1] @code="57024-2" Health Quality Measure Document (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4484-19553).

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

* + 1. This externalDocument SHOULD contain zero or one [0..1] text (CONF:4484-17897).
    2. This externalDocument MAY contain zero or one [0..1] setId (CONF:4484-17899).
       1. If this reference is to an eCQM, this setId SHALL equal the QualityMeasureDocument/setId which is the eCQM version neutral id (CONF:4484-17900).
    3. This externalDocument MAY contain zero or one [0..1] versionNumber (CONF:4484-17901).

There is a known data type mismatch issue between the CDA R2 and HQMF for the versionNumber attribute. This guide is based on CDA R2, which is derived from the HL7 Reference Information Model (RIM) Version 2.07. In RIM 2.07, the versionNumber attribute is specified as INT data type. HQMF, however, is derived from HL7 RIM, Version 2.44, where versionNumber is specified as ST data type. If a version number in a format such as "9.0.0" was sent in a QRDA III file, it would fail the CDA\_SDTC.xsd schema validation.

To avoid this problem, since versionNumber is an optional data element (CONF:77-17901), this guide recommends eCQM version number not be submitted in a QRDA Category III report. Version specific identifier for an eCQM can be used to uniquely identify an eCQM and it is a required data element for QRDA III.

* + - 1. If this reference is to an eCQM this version number SHALL equal the sequential eCQM Version number (CONF:4484-17902).

In the case that an eCQM is part of a measure set or group, the following reference is used to identify that set or group. If the eCQM is not part of a measure set, the following reference element should not be defined.

1. SHOULD contain exactly one [1..1] reference (CONF:4484-18353) such that it
   1. SHALL contain exactly one [1..1] externalObservation (CONF:4484-18354).
      1. This externalObservation SHALL contain at least one [1..\*] id (CONF:4484-18355).
         1. This id SHALL equal the id of the corresponding measure set definition within the eCQM (CONF:4484-18356).
      2. This externalObservation SHALL contain exactly one [1..1] code (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 STATIC) (CONF:4484-18357).
         1. This code SHALL contain exactly one [1..1] @code="55185-3" measure set (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4484-19554).
      3. This externalObservation SHALL contain exactly one [1..1] text (CONF:4484-18358).
         1. This text SHOULD be the title of the corresponding measure set (CONF:4484-18359).
2. MAY contain zero or more [0..\*] component (CONF:4484-17903) such that it
   1. SHALL contain exactly one [1..1] [Performance Rate for Proportion Measure (V3)](#E_Performance_Rate_for_Proportion_v3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.14:2020-12-01) (CONF:4484-17904).
3. MAY contain zero or more [0..\*] component (CONF:4484-18423) such that it
   1. SHALL contain exactly one [1..1] [Reporting Rate for Proportion Measure](#E_Reporting_Rate_for_Proportion_Measure) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.15) (CONF:4484-18424).
4. SHALL contain at least one [1..\*] component (CONF:4484-18425) such that it
   1. SHALL contain exactly one [1..1] [Measure Data (V3)](#E_Measure_Data_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.5:2016-09-01) (CONF:4484-18426).

Figure 23: Measure Reference and Results (V4) Example

<organizer classCode="CLUSTER" moodCode="EVN">

<!-- Measure Reference -->

<templateId root="2.16.840.1.113883.10.20.24.3.98"/>

<!-- Measure Reference and Results (V4) -->

<templateId root="2.16.840.1.113883.10.20.27.3.1" extension="2020-12-01"/>

<statusCode code="completed"/>

<reference typeCode="REFR">

<externalDocument classCode="DOC" moodCode="EVN">

<!-- This is the version specific identifier for an example eCQM:

QualityMeasureDocument/id - the OID in the @root indicates that

the @extension (which is a GUID) contains the version specific

identifier for eCQM-->

<id root="2.16.840.1.113883.4.738"

extension="2c928085-7198-38ee-0171-9d8c44fe0746"/>

<!-- eCQM Measure Authoring Tool Identifier -->

<id root="2.16.840.1.113883.3.560.101.2" extension="124"/>

<code code="57024-2"

displayName="Health Quality Measure Document"

codeSystemName="LOINC"

codeSystem="2.16.840.1.113883.6.1" />

<text>Cervical Cancer Screening</text>

</externalDocument>

</reference>

<component>

<!-- Performance Rate for Proportion Measure (V3) -->

<observation classCode="OBS" moodCode="EVN">

...

</observation>

</component>

<component>

<!-- Measure Data -->

<observation classCode="OBS" moodCode="EVN">

...

</observation>

</component>

<component>

<!-- Measure Data -->

<observation classCode="OBS" moodCode="EVN">

...

</observation>

</component>

</organizer>

Figure 24: Corresponding eCQM Example

<!--

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Measure Details Section

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

-->

<typeId extension="POQM\_HD000001UV02" root="2.16.840.1.113883.1.3"/>

<templateId>

<item extension="2019-05-01" root="2.16.840.1.113883.10.20.28.1.2"/>

</templateId>

<id root="2c928085-7198-38ee-0171-9d8c44fe0746"/>

<code code="57024-2" codeSystem="2.16.840.1.113883.6.1">

<displayName value="Health Quality Measure Document"/>

</code>

<title value="Cervical Cancer Screening"/>

...

<setId root="42e7e489-790f-427a-a1a6-d6e807f65a6d"/>

<versionNumber value="9.1.000"/>

...

<subjectOf>

<measureAttribute>

<code nullFlavor="OTH">

<originalText value="eCQM Identifier (Measure Authoring Tool)"/>

</code>

<value mediaType="text/plain" value="124" xsi:type="ED"/>

</measureAttribute>

</subjectOf>

Promoting Interoperability Measure Performed Measure Reference and Results

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

Table 27: Promoting Interoperability Measure Performed Measure Reference and Results Contexts

| Contained By: | Contains: |
| --- | --- |
| [Promoting Interoperability Measure Section (V3)](#S_Promoting_Interoperability_Measure_Se) (optional) | [Measure Performed](#E_Measure_Performed) (required) |

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

Table 28: Promoting Interoperability Measure Performed Measure Reference and Results Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.29:2016-09-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3259-21419](#C_3259-21419) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER |
| @moodCode | 1..1 | SHALL |  | [3259-21420](#C_3259-21420) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3259-21408](#C_3259-21408) |  |
| @root | 1..1 | SHALL |  | [3259-21417](#C_3259-21417) | 2.16.840.1.113883.10.20.27.3.29 |
| @extension | 1..1 | SHALL |  | [3259-21418](#C_3259-21418) | 2016-09-01 |
| reference | 1..1 | SHALL |  | [3259-21405](#C_3259-21405) |  |
| @typeCode | 1..1 | SHALL |  | [3259-21416](#C_3259-21416) | REFR |
| externalDocument | 1..1 | SHALL |  | [3259-21406](#C_3259-21406) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) |
| @classCode | 1..1 | SHALL |  | [3259-21415](#C_3259-21415) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = DOC |
| id | 1..1 | SHALL |  | [3259-21407](#C_3259-21407) |  |
| @root | 1..1 | SHALL |  | [3259-21412](#C_3259-21412) | 2.16.840.1.113883.3.7031 |
| @extension | 1..1 | SHALL |  | [3259-21413](#C_3259-21413) |  |
| text | 0..1 | SHOULD |  | [3259-21414](#C_3259-21414) |  |
| component | 1..1 | SHALL |  | [3259-21404](#C_3259-21404) |  |
| observation | 1..1 | SHALL |  | [3259-21411](#C_3259-21411) | [Measure Performed (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.27:2016-09-01](#E_Measure_Performed) |

1. Conforms to [Measure Reference](#E_Measure_Reference) template (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.98).
2. SHALL contain exactly one [1..1] @classCode="CLUSTER" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3259-21419).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:3259-21420).
4. SHALL contain exactly one [1..1] templateId (CONF:3259-21408) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.29" (CONF:3259-21417).
   2. SHALL contain exactly one [1..1] @extension="2016-09-01" (CONF:3259-21418).
5. SHALL contain exactly one [1..1] reference (CONF:3259-21405) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" (CONF:3259-21416).
   2. SHALL contain exactly one [1..1] externalDocument (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3259-21406).
      1. This externalDocument SHALL contain exactly one [1..1] @classCode="DOC" Document (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3259-21415).
      2. This externalDocument SHALL contain exactly one [1..1] id (CONF:3259-21407) such that it
         1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.3.7031" (CONF:3259-21412).  
            Note: This OID indicates that the @extension contains Promoting Interoperability measure identifier
         2. SHALL contain exactly one [1..1] @extension (CONF:3259-21413).  
            Note: This @extension is the value of a Promoting Interoperability measure identifier

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

* + 1. This externalDocument SHOULD contain zero or one [0..1] text (CONF:3259-21414).

1. SHALL contain exactly one [1..1] component (CONF:3259-21404) such that it
   1. SHALL contain exactly one [1..1] [Measure Performed](#E_Measure_Performed) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.27:2016-09-01) (CONF:3259-21411).

Figure 25: Promoting Interoperability Measure Performed Measure Reference and Results Example

<organizer classCode="CLUSTER" moodCode="EVN">

<!-- Measure Reference template -->

<templateId root="2.16.840.1.113883.10.20.24.3.98"/>

<!-- Promoting Interoperability Measure Performed Measure Reference and Results -->

<templateId root="2.16.840.1.113883.10.20.27.3.29" extension="2016-09-01"/>

<id root="ac575aef-7062-4ea2-b723-df517cfa470a"/>

<statusCode code="completed"/>

<reference typeCode="REFR">

<!-- Reference to a particular Promoting Interoperability measure unique identifier. -->

<externalDocument classCode="DOC" moodCode="EVN">

<!-- extension is the unique identifier for an Promoting Interoperability measure. -->

<id root="2.16.840.1.113883.3.7031" extension="PI\_PPHI\_1"/>

<!-- Promoting Interoperability measure title -->

<text>Patient Security Analysis</text>

</externalDocument>

</reference>

<component>

<!-- Measure Performed -->

...

</component>

<component>

</organizer>

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

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

Table 29: Promoting Interoperability Numerator Denominator Type Measure Reference and Results (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Promoting Interoperability Measure Section (V3)](#S_Promoting_Interoperability_Measure_Se) (optional) | [Performance Rate](#E_Performance_Rate) (optional)  [Promoting Interoperability Numerator Denominator Type Measure Numerator Data](#E_Promoting_Interoperability_Numerator_) (required)  [Promoting Interoperability Numerator Denominator Type Measure Denominator Data](#E_Promoting_Interoperability_Numera) (required) |

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

Table 30: Promoting Interoperability Numerator Denominator Type Measure Reference and Results (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.28:2017-06-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3338-21273](#C_3338-21273) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER |
| @moodCode | 1..1 | SHALL |  | [3338-21274](#C_3338-21274) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3338-21248](#C_3338-21248) |  |
| @root | 1..1 | SHALL |  | [3338-21266](#C_3338-21266) | 2.16.840.1.113883.10.20.27.3.28 |
| @extension | 1..1 | SHALL |  | [3338-21396](#C_3338-21396) | 2017-06-01 |
| reference | 1..1 | SHALL |  | [3338-21242](#C_3338-21242) |  |
| @typeCode | 1..1 | SHALL |  | [3338-21265](#C_3338-21265) | REFR |
| externalDocument | 1..1 | SHALL |  | [3338-21243](#C_3338-21243) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) |
| @classCode | 1..1 | SHALL |  | [3338-21264](#C_3338-21264) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = DOC |
| id | 1..1 | SHALL |  | [3338-21247](#C_3338-21247) |  |
| @root | 1..1 | SHALL |  | [3338-21402](#C_3338-21402) | 2.16.840.1.113883.3.7031 |
| @extension | 1..1 | SHALL |  | [3338-21403](#C_3338-21403) |  |
| text | 0..1 | SHOULD |  | [3338-21263](#C_3338-21263) |  |
| component | 0..1 | MAY |  | [3338-21240](#C_3338-21240) |  |
| observation | 1..1 | SHALL |  | [3338-21311](#C_3338-21311) | [Performance Rate (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.30:2016-09-01](#E_Performance_Rate)) |
| component | 1..1 | SHALL |  | [3338-21312](#C_3338-21312) |  |
| observation | 1..1 | SHALL |  | [3338-21313](#C_3338-21313) | [Promoting Interoperability Numerator Denominator Type Measure Numerator Data (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.31:2016-09-01](#E_Promoting_Interoperability_Numerator_)) |
| component | 1..1 | SHALL |  | [3338-21320](#C_3338-21320) |  |
| observation | 1..1 | SHALL |  | [3338-21321](#C_3338-21321) | [Promoting Interoperability Numerator Denominator Type Measure Denominator Data (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.32:2016-09-01](#E_Promoting_Interoperability_Numera)) |

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

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

* + 1. This externalDocument SHOULD contain zero or one [0..1] text (CONF:3338-21263).

1. MAY contain zero or one [0..1] component (CONF:3338-21240) such that it
   1. SHALL contain exactly one [1..1] [Performance Rate](#E_Performance_Rate) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.30:2016-09-01) (CONF:3338-21311).
2. SHALL contain exactly one [1..1] component (CONF:3338-21312) such that it
   1. SHALL contain exactly one [1..1] [Promoting Interoperability Numerator Denominator Type Measure Numerator Data](#E_Promoting_Interoperability_Numerator_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.31:2016-09-01) (CONF:3338-21313).
3. SHALL contain exactly one [1..1] component (CONF:3338-21320) such that it
   1. SHALL contain exactly one [1..1] [Promoting Interoperability Numerator Denominator Type Measure Denominator Data](#E_Promoting_Interoperability_Numera) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.32:2016-09-01) (CONF:3338-21321).

Figure 26: Promoting Interoperability Numerator Denominator Type Measure Reference and Results Example (V2)

<organizer classCode="CLUSTER" moodCode="EVN">

<!-- Measure Reference template -->

<templateId root="2.16.840.1.113883.10.20.24.3.98"/>

<!-- Promoting Interoperability Numerator Denominator Type Measure Reference and Results -->

<templateId root="2.16.840.1.113883.10.20.27.3.28" extension="2017-06-01"/>

<id root="ac575aef-7062-4ea2-b723-df517cfa470a"/>

<statusCode code="completed"/>

<reference typeCode="REFR">

<!-- Reference to a particular Promoting Interoperability measure's unique identifier. -->

<externalDocument classCode="DOC" moodCode="EVN">

<!-- extension is the unique identifier for a Promoting Interoperability measure. -->

<id root="2.16.840.1.113883.3.7031" extension="PI\_EP\_1"/>

<!-- Promoting Interoperability measure title -->

<text>ePrescribing</text>

</externalDocument>

</reference>

<component>

<!-- Performance Rate -->

...

</component>

<component>

<!-- Promoting Interoperability Numerator Denominator Type Measure Denominator Data -->

...

</component>

<component>

<!-- Promoting Interoperability Numerator Denominator Type Measure Numerator Data -->

...

</component>

</organizer>

Payer Supplemental Data Element (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.27.3.9:2016-02-01 (open)]

Table 31: Payer Supplemental Data Element (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Measure Data (V3)](#E_Measure_Data_V3) (optional) | [Aggregate Count](#E_Aggregate_Count) (required) |

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.

Table 32: Payer Supplemental Data Element (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.9:2016-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [2226-21155](#C_2226-21155) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [2226-21156](#C_2226-21156) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [2226-18237](#C_2226-18237) |  |
| @root | 1..1 | SHALL |  | [2226-18238](#C_2226-18238) | 2.16.840.1.113883.10.20.27.3.9 |
| @extension | 1..1 | SHALL |  | [2226-21157](#C_2226-21157) | 2016-02-01 |
| code | 1..1 | SHALL |  | [2226-21158](#C_2226-21158) |  |
| @code | 1..1 | SHALL |  | [2226-21159](#C_2226-21159) | 48768-6 |
| @codeSystem | 1..1 | SHALL |  | [2226-21165](#C_2226-21165) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [2226-18106](#C_2226-18106) |  |
| @code | 1..1 | SHALL |  | [2226-18107](#C_2226-18107) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [2226-18250](#C_2226-18250) | urn:oid:2.16.840.1.114222.4.11.3591 (Payer) |
| entryRelationship | 1..1 | SHALL |  | [2226-18108](#C_2226-18108) |  |
| @typeCode | 1..1 | SHALL |  | [2226-18109](#C_2226-18109) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| @inversionInd | 1..1 | SHALL |  | [2226-18110](#C_2226-18110) | true |
| observation | 1..1 | SHALL |  | [2226-18111](#C_2226-18111) | [Aggregate Count (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3](#E_Aggregate_Count)) |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:2226-21155).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:2226-21156).
3. SHALL contain exactly one [1..1] templateId (CONF:2226-18237) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.9" (CONF:2226-18238).
   2. SHALL contain exactly one [1..1] @extension="2016-02-01" (CONF:2226-21157).
4. SHALL contain exactly one [1..1] code (CONF:2226-21158).
   1. This code SHALL contain exactly one [1..1] @code="48768-6" Payment source  (CONF:2226-21159).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:2226-21165).
5. SHALL contain exactly one [1..1] statusCode (CONF:2226-18106).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:2226-18107).
6. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHOULD be selected from ValueSet [Payer](#Payer) urn:oid:2.16.840.1.114222.4.11.3591 DYNAMIC (CONF:2226-18250).
7. SHALL contain exactly one [1..1] entryRelationship (CONF:2226-18108) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:2226-18109).
   2. SHALL contain exactly one [1..1] @inversionInd="true" (CONF:2226-18110).
   3. SHALL contain exactly one [1..1] [Aggregate Count](#E_Aggregate_Count) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3) (CONF:2226-18111).

Figure 27: Payer Supplemental Data Element (V2) Example

<observation classCode="OBS" moodCode="EVN">

<!-- Payer Supplemental Data Element V2 -->

<templateId root="2.16.840.1.113883.10.20.27.3.9" extension="2016-02-01"/>

<code code="48768-6"

displayName="Payment source"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"/>

<statusCode code="completed"/>

<value xsi:type="CD"

code="1"

codeSystem="2.16.840.1.113883.3.221.5"

codeSystemName="Source of Payment Typology"

displayName="Medicare"/>

<entryRelationship typeCode="SUBJ" inversionInd="true">

<!-- Aggregate Count -->

<observation classCode="OBS" moodCode="EVN">

...

</observation>

</entryRelationship>

</observation>

Performance Rate

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

Table 33: Performance Rate Contexts

| Contained By: | Contains: |
| --- | --- |
| [Promoting Interoperability Numerator Denominator Type Measure Reference and Results (V2)](#E_Promoting_Interoperability_Numer_) (optional) |  |

Table 34: Performance Rate Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.30:2016-09-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3259-21303](#C_3259-21303) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3259-21304](#C_3259-21304) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3259-21298](#C_3259-21298) |  |
| @root | 1..1 | SHALL |  | [3259-21310](#C_3259-21310) | 2.16.840.1.113883.10.20.27.3.30 |
| @extension | 1..1 | SHALL |  | [3259-21441](#C_3259-21441) | 2016-09-01 |
| code | 1..1 | SHALL |  | [3259-21294](#C_3259-21294) |  |
| @code | 1..1 | SHALL |  | [3259-21305](#C_3259-21305) | 72510-1 |
| @codeSystem | 1..1 | SHALL |  | [3259-21306](#C_3259-21306) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [3259-21297](#C_3259-21297) |  |
| @code | 1..1 | SHALL |  | [3259-21309](#C_3259-21309) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | REAL | [3259-21307](#C_3259-21307) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3259-21303).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:3259-21304).
3. SHALL contain exactly one [1..1] templateId (CONF:3259-21298) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.30" (CONF:3259-21310).
   2. SHALL contain exactly one [1..1] @extension="2016-09-01" (CONF:3259-21441).
4. SHALL contain exactly one [1..1] code (CONF:3259-21294).
   1. This code SHALL contain exactly one [1..1] @code="72510-1" Performance Rate (CONF:3259-21305).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3259-21306).
5. SHALL contain exactly one [1..1] statusCode (CONF:3259-21297).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:3259-21309).
6. SHALL contain exactly one [1..1] value with @xsi:type="REAL" (CONF:3259-21307).

Figure 28: Performance Rate Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.27.3.30" extension="2016-09-01"/>

<code code="72510-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Performance Rate"/>

<statusCode code="completed"/>

<value xsi:type="REAL" value="0.75"/>

</observation>

Performance Rate for Proportion Measure (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.27.3.14:2020-12-01 (open)]

Table 35: Performance Rate for Proportion Measure (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Measure Reference and Results (V4)](#E_Measure_Reference_and_Results_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 = (Numerator – Numerator Exclusions) / (Denominator – Denominator Exclusions – Denominator Exceptions). The predicted rate (based on the measure's risk-adjustment model) can be captured in the reference range.

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 36: Performance Rate for Proportion Measure (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.14:2020-12-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4484-18395](#C_4484-18395) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4484-18396](#C_4484-18396) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4484-19649](#C_4484-19649) |  |
| @root | 1..1 | SHALL |  | [4484-19650](#C_4484-19650) | 2.16.840.1.113883.10.20.27.3.14 |
| @extension | 1..1 | SHALL |  | [4484-21444](#C_4484-21444) | 2020-12-01 |
| value | 1..1 | SHALL | REAL | [4484-21445](#C_4484-21445) |  |
| reference | 1..1 | SHALL |  | [4484-19651](#C_4484-19651) |  |
| @typeCode | 1..1 | SHALL |  | [4484-19652](#C_4484-19652) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| externalObservation | 1..1 | SHALL |  | [4484-19653](#C_4484-19653) |  |
| @classCode | 1..1 | SHALL |  | [4484-19654](#C_4484-19654) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) |
| id | 1..1 | SHALL |  | [4484-19655](#C_4484-19655) |  |
| @root | 1..1 | SHALL |  | [4484-19656](#C_4484-19656) |  |
| code | 1..1 | SHALL |  | [4484-19657](#C_4484-19657) |  |
| @code | 1..1 | SHALL |  | [4484-19658](#C_4484-19658) | NUMER |
| @codeSystem | 1..1 | SHALL |  | [4484-21180](#C_4484-21180) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| referenceRange | 0..1 | MAY |  | [4484-18400](#C_4484-18400) |  |
| observationRange | 1..1 | SHALL |  | [4484-18401](#C_4484-18401) |  |
| value | 1..1 | SHALL | REAL | [4484-18402](#C_4484-18402) |  |

1. Conforms to [Performance Rate](#E_Performance_Rate) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.30:2016-09-01).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4484-18395).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4484-18396).
4. SHALL contain exactly one [1..1] templateId (CONF:4484-19649) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.14" (CONF:4484-19650).
   2. SHALL contain exactly one [1..1] @extension="2020-12-01" (CONF:4484-21444).
5. SHALL contain exactly one [1..1] value with @xsi:type="REAL" (CONF:4484-21445).
   1. The value, if present, SHALL be greater than or equal to 0 and less than or equal to 1 (CONF:4484-21446).
   2. The value, if present, SHALL contain no more than 6 digits to the right of the decimal (CONF:4484-21447).

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

1. SHALL contain exactly one [1..1] reference (CONF:4484-19651).
   1. This reference SHALL contain exactly one [1..1] @typeCode="REFR" refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4484-19652).
   2. This reference SHALL contain exactly one [1..1] externalObservation (CONF:4484-19653).
      1. This externalObservation SHALL contain exactly one [1..1] @classCode (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4484-19654).

The externalObservationID contains the ID of the numerator in the referenced eCQM.

* + 1. This externalObservation SHALL contain exactly one [1..1] id (CONF:4484-19655).
       1. This id SHALL contain exactly one [1..1] @root (CONF:4484-19656).
    2. This externalObservation SHALL contain exactly one [1..1] code (CONF:4484-19657).
       1. This code SHALL contain exactly one [1..1] @code="NUMER" Numerator (CONF:4484-19658).
       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:4484-21180).

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

1. MAY contain zero or one [0..1] referenceRange (CONF:4484-18400).
   1. The referenceRange, if present, SHALL contain exactly one [1..1] observationRange (CONF:4484-18401).
      1. This observationRange SHALL contain exactly one [1..1] value with @xsi:type="REAL" (CONF:4484-18402).

Figure 29: Performance Rate for Proportion Measure (V3) Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.27.3.14" extension="2016-09-01"/>

<!-- Performance Rate for Proportion Measure V3) -->

<templateId root="2.16.840.1.113883.10.20.27.3.30" extension="2020-12-01"/>

<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="0.833333"/>

<reference typeCode="REFR">

<externalObservation classCode="OBS" moodCode="EVN">

<!-- The externalObservationID contains the ID of the numerator in the referenced eCQM. -->

<id root="63DAFD4E-CBD5-4BEE-BE19-E64337356748"/>

<code code="NUMER" displayName="Numerator"

codeSystem="2.16.840.1.113883.5.4"

codeSystemName="ObservationValue"/>

</externalObservation>

</reference>

<referenceRange>

<observationRange>

<value xsi:type="REAL" value="0.625"/>

</observationRange>

</referenceRange>

</observation>

Figure 30: Corresponding eCQM Example

<!-- Example eCQM HQMF snippet, id is referenced by the performance rate for proportion measure example -->

<component typeCode="COMP">

<numeratorCriteria classCode="OBS" moodCode="EVN">

<id extension="numerator" root="63DAFD4E-CBD5-4BEE-BE19-E64337356748"/>

<code code="NUMER" codeSystem="2.16.840.1.113883.5.4" codeSystemName="Act Code"/>

...

</numeratorCriteria>

</component>

Postal Code Supplemental Data Element (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.27.3.10:2016-09-01 (open)]

Table 37: Postal Code Supplemental Data Element (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Measure Data (V3)](#E_Measure_Data_V3) (optional) | [Aggregate Count](#E_Aggregate_Count) (required) |

This observation represents a postal code and provides the number of patients in the population that live in that postal code.

Table 38: Postal Code Supplemental Data Element (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.10:2016-09-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3259-18209](#C_3259-18209) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3259-18210](#C_3259-18210) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3259-18211](#C_3259-18211) |  |
| @root | 1..1 | SHALL |  | [3259-18212](#C_3259-18212) | 2.16.840.1.113883.10.20.27.3.10 |
| @extension | 1..1 | SHALL |  | [3259-21446](#C_3259-21446) | 2016-09-01 |
| code | 1..1 | SHALL |  | [3259-18213](#C_3259-18213) |  |
| @code | 1..1 | SHALL |  | [3259-18214](#C_3259-18214) | 45401-7 |
| @codeSystem | 1..1 | SHALL |  | [3259-21445](#C_3259-21445) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [3259-18100](#C_3259-18100) |  |
| @code | 1..1 | SHALL |  | [3259-18101](#C_3259-18101) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | ST | [3259-18215](#C_3259-18215) |  |
| entryRelationship | 1..1 | SHALL |  | [3259-18102](#C_3259-18102) |  |
| @typeCode | 1..1 | SHALL |  | [3259-18103](#C_3259-18103) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| @inversionInd | 1..1 | SHALL |  | [3259-18104](#C_3259-18104) | true |
| observation | 1..1 | SHALL |  | [3259-18105](#C_3259-18105) | [Aggregate Count (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3](#E_Aggregate_Count)) |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3259-18209).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:3259-18210).
3. SHALL contain exactly one [1..1] templateId (CONF:3259-18211) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.10" (CONF:3259-18212).
   2. SHALL contain exactly one [1..1] @extension="2016-09-01" (CONF:3259-21446).
4. SHALL contain exactly one [1..1] code (CONF:3259-18213).
   1. This code SHALL contain exactly one [1..1] @code="45401-7" Zip code (CONF:3259-18214).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3259-21445).
5. SHALL contain exactly one [1..1] statusCode (CONF:3259-18100).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:3259-18101).
6. SHALL contain exactly one [1..1] value with @xsi:type="ST" (CONF:3259-18215).
7. SHALL contain exactly one [1..1] entryRelationship (CONF:3259-18102) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:3259-18103).
   2. SHALL contain exactly one [1..1] @inversionInd="true" (CONF:3259-18104).
   3. SHALL contain exactly one [1..1] [Aggregate Count](#E_Aggregate_Count) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3) (CONF:3259-18105).

Figure 31: Postal Code Supplemental Data Element (V2) Example

<observation classCode="OBS" moodCode="EVN">

<!-- Postal Code Supplemental Data Element (V2) -->

<templateId root="2.16.840.1.113883.10.20.27.3.10" extension="2016-09-01"/>

<code code="45401-7"

displayName="Zip code"

codeSystem="SNOMED-CT"

codeSystemName="2.16.840.1.113883.6.1"/>

<statusCode code="completed"/>

<value xsi:type="ST">92543</value>

<entryRelationship typeCode="SUBJ" inversionInd="true">

<!-- Aggregate Count -->

<observation classCode="OBS" moodCode="EVN">

...

</observation>

</entryRelationship>

</observation>

Promoting Interoperability Numerator Denominator Type Measure Denominator Data

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

Table 39: Promoting Interoperability Numerator Denominator Type Measure Denominator Data Contexts

| Contained By: | Contains: |
| --- | --- |
| [Promoting Interoperability Numerator Denominator Type Measure Reference and Results (V2)](#E_Promoting_Interoperability_Numer_) (required) | [Aggregate Count](#E_Aggregate_Count) (required) |

Formerly Advancing Care Information. This template is used for reporting aggregated denominator count for Promoting Interoperability numerator denominator type of measure.

Table 40: Promoting Interoperability Numerator Denominator Type Measure Denominator Data Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.32:2016-09-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3259-21378](#C_3259-21378) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3259-21379](#C_3259-21379) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3259-21366](#C_3259-21366) |  |
| @root | 1..1 | SHALL |  | [3259-21374](#C_3259-21374) | 2.16.840.1.113883.10.20.27.3.32 |
| @extension | 1..1 | SHALL |  | [3259-21400](#C_3259-21400) | 2016-09-01 |
| code | 1..1 | SHALL |  | [3259-21365](#C_3259-21365) |  |
| @code | 1..1 | SHALL |  | [3259-21372](#C_3259-21372) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [3259-21373](#C_3259-21373) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [3259-21367](#C_3259-21367) |  |
| @code | 1..1 | SHALL |  | [3259-21375](#C_3259-21375) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [3259-21368](#C_3259-21368) |  |
| @code | 1..1 | SHALL |  | [3259-21376](#C_3259-21376) | DENOM |
| @codeSystem | 1..1 | SHALL |  | [3259-21377](#C_3259-21377) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| entryRelationship | 1..1 | SHALL |  | [3259-21364](#C_3259-21364) |  |
| @typeCode | 1..1 | SHALL |  | [3259-21370](#C_3259-21370) | SUBJ |
| @inversionInd | 1..1 | SHALL |  | [3259-21371](#C_3259-21371) | true |
| observation | 1..1 | SHALL |  | [3259-21369](#C_3259-21369) | [Aggregate Count (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3](#E_Aggregate_Count)) |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3259-21378).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:3259-21379).
3. SHALL contain exactly one [1..1] templateId (CONF:3259-21366) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.32" (CONF:3259-21374).
   2. SHALL contain exactly one [1..1] @extension="2016-09-01" (CONF:3259-21400).
4. SHALL contain exactly one [1..1] code (CONF:3259-21365).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:3259-21372).
   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:3259-21373).
5. SHALL contain exactly one [1..1] statusCode (CONF:3259-21367).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3259-21375).
6. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3259-21368).
   1. This value SHALL contain exactly one [1..1] @code="DENOM" Denominator (CONF:3259-21376).
   2. This value 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 STATIC) (CONF:3259-21377).
7. SHALL contain exactly one [1..1] entryRelationship (CONF:3259-21364) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" (CONF:3259-21370).
   2. SHALL contain exactly one [1..1] @inversionInd="true" (CONF:3259-21371).
   3. SHALL contain exactly one [1..1] [Aggregate Count](#E_Aggregate_Count) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3) (CONF:3259-21369).

Figure 32: Promoting Interoperability Numerator Denominator Type Measure Denominator Data Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.27.3.32" extension="2016-09-01"/>

<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"

codeSystemName="ActCode" displayName="Assertion"/>

<statusCode code="completed"/>

<value xsi:type="CD" code="DENOM" codeSystem="2.16.840.1.113883.5.4"

codeSystemName="ActCode"/>

<!-- Denominator Count-->

<entryRelationship typeCode="SUBJ" inversionInd="true">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.27.3.3"/>

<code code="MSRAGG" codeSystem="2.16.840.1.113883.5.4" codeSystemName="ActCode" displayName="rate aggregation"/>

<statusCode code="completed"/>

<value xsi:type="INT" value="800"/>

<methodCode code="COUNT" codeSystem="2.16.840.1.113883.5.84"

codeSystemName="ObservationMethod" displayName="Count"/>

</observation>

</entryRelationship>

</observation>

Promoting Interoperability Numerator Denominator Type Measure Numerator Data

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

Table 41: Promoting Interoperability Numerator Denominator Type Measure Numerator Data Contexts

| Contained By: | Contains: |
| --- | --- |
| [Promoting Interoperability Numerator Denominator Type Measure Reference and Results (V2)](#E_Promoting_Interoperability_Numer_) (required) | [Aggregate Count](#E_Aggregate_Count) (required) |

Formerly Advancing Care Information. This template is used for reporting aggregated numerator count for Promoting Interoperability numerator denominator type of measure.

Table 42: Promoting Interoperability Numerator Denominator Type Measure Numerator Data Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.31:2016-09-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3259-21360](#C_3259-21360) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3259-21361](#C_3259-21361) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3259-21324](#C_3259-21324) |  |
| @root | 1..1 | SHALL |  | [3259-21342](#C_3259-21342) | 2.16.840.1.113883.10.20.27.3.31 |
| @extension | 1..1 | SHALL |  | [3259-21401](#C_3259-21401) | 2016-09-01 |
| code | 1..1 | SHALL |  | [3259-21323](#C_3259-21323) |  |
| @code | 1..1 | SHALL |  | [3259-21340](#C_3259-21340) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [3259-21341](#C_3259-21341) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [3259-21332](#C_3259-21332) |  |
| @code | 1..1 | SHALL |  | [3259-21358](#C_3259-21358) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [3259-21336](#C_3259-21336) |  |
| @code | 1..1 | SHALL |  | [3259-21362](#C_3259-21362) | NUMER |
| @codeSystem | 1..1 | SHALL |  | [3259-21363](#C_3259-21363) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| entryRelationship | 1..1 | SHALL |  | [3259-21322](#C_3259-21322) |  |
| @typeCode | 1..1 | SHALL |  | [3259-21338](#C_3259-21338) | SUBJ |
| @inversionInd | 1..1 | SHALL |  | [3259-21339](#C_3259-21339) | true |
| observation | 1..1 | SHALL |  | [3259-21337](#C_3259-21337) | [Aggregate Count (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3](#E_Aggregate_Count)) |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3259-21360).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:3259-21361).
3. SHALL contain exactly one [1..1] templateId (CONF:3259-21324) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.31" (CONF:3259-21342).
   2. SHALL contain exactly one [1..1] @extension="2016-09-01" (CONF:3259-21401).
4. SHALL contain exactly one [1..1] code (CONF:3259-21323).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:3259-21340).
   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:3259-21341).
5. SHALL contain exactly one [1..1] statusCode (CONF:3259-21332).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3259-21358).
6. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3259-21336).
   1. This value SHALL contain exactly one [1..1] @code="NUMER" Numerator (CONF:3259-21362).
   2. This value 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 STATIC) (CONF:3259-21363).
7. SHALL contain exactly one [1..1] entryRelationship (CONF:3259-21322) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" (CONF:3259-21338).
   2. SHALL contain exactly one [1..1] @inversionInd="true" (CONF:3259-21339).
   3. SHALL contain exactly one [1..1] [Aggregate Count](#E_Aggregate_Count) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3) (CONF:3259-21337).

Figure 33: Promoting Interoperability Numerator Denominator Type Measure Numerator Data Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.27.3.31" extension="2016-09-01"/>

<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"

codeSystemName="ActCode" displayName="Assertion"/>

<statusCode code="completed"/>

<value xsi:type="CD" code="NUM" codeSystem="2.16.840.1.113883.5.4"

codeSystemName="ActCode"/>

<!-- Numerator Count-->

<entryRelationship typeCode="SUBJ" inversionInd="true">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.27.3.3"/>

<code code="MSRAGG" codeSystem="2.16.840.1.113883.5.4"

codeSystemName="ActCode" displayName="rate aggregation"/>

<statusCode code="completed"/>

<value xsi:type="INT" value="600"/>

<methodCode code="COUNT" codeSystem="2.16.840.1.113883.5.84"

codeSystemName="ObservationMethod" displayName="Count"/>

</observation>

</entryRelationship>

</observation>

Race Supplemental Data Element (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.27.3.8:2016-09-01 (open)]

Table 43: Race Supplemental Data Element (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Measure Data (V3)](#E_Measure_Data_V3) (optional) | [Aggregate Count](#E_Aggregate_Count) (required) |

This observation represents the race category reported by patients and provides the number of patients in the population that report that race category.

Table 44: Race Supplemental Data Element (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.8:2016-09-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3259-18223](#C_3259-18223) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3259-18224](#C_3259-18224) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3259-18225](#C_3259-18225) |  |
| @root | 1..1 | SHALL |  | [3259-18226](#C_3259-18226) | 2.16.840.1.113883.10.20.27.3.8 |
| @extension | 1..1 | SHALL |  | [3259-21178](#C_3259-21178) | 2016-09-01 |
| code | 1..1 | SHALL |  | [3259-18227](#C_3259-18227) |  |
| @code | 1..1 | SHALL |  | [3259-18228](#C_3259-18228) | 72826-1 |
| @codeSystem | 1..1 | SHALL |  | [3259-21447](#C_3259-21447) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [3259-18112](#C_3259-18112) |  |
| @code | 1..1 | SHALL |  | [3259-18113](#C_3259-18113) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [3259-18229](#C_3259-18229) | urn:oid:2.16.840.1.114222.4.11.836 (Race) |
| entryRelationship | 1..1 | SHALL |  | [3259-18114](#C_3259-18114) |  |
| @typeCode | 1..1 | SHALL |  | [3259-18115](#C_3259-18115) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| @inversionInd | 1..1 | SHALL |  | [3259-18116](#C_3259-18116) | true |
| observation | 1..1 | SHALL |  | [3259-18117](#C_3259-18117) | [Aggregate Count (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3](#E_Aggregate_Count)) |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3259-18223).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:3259-18224).
3. SHALL contain exactly one [1..1] templateId (CONF:3259-18225) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.8" (CONF:3259-18226).
   2. SHALL contain exactly one [1..1] @extension="2016-09-01" (CONF:3259-21178).
4. SHALL contain exactly one [1..1] code (CONF:3259-18227).
   1. This code SHALL contain exactly one [1..1] @code="72826-1" Race (CONF:3259-18228).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3259-21447).
5. SHALL contain exactly one [1..1] statusCode (CONF:3259-18112).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:3259-18113).
6. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet [Race](#Race) urn:oid:2.16.840.1.114222.4.11.836 DYNAMIC (CONF:3259-18229).
7. SHALL contain exactly one [1..1] entryRelationship (CONF:3259-18114) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:3259-18115).
   2. SHALL contain exactly one [1..1] @inversionInd="true" (CONF:3259-18116).
   3. SHALL contain exactly one [1..1] [Aggregate Count](#E_Aggregate_Count) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3) (CONF:3259-18117).

Figure 34: Race Supplemental Data Element (V2) Example

<observation classCode="OBS" moodCode="EVN">

<!-- Race Supplemental Data Element (V2) -->

<templateId root="2.16.840.1.113883.10.20.27.3.8" extension="2016-09-01"/>

<code code="72826-1"

displayName="Race"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"/>

<statusCode code="completed"/>

<value xsi:type="CD"

code="2054-5"

displayName="Black or African American"

codeSystem="2.16.840.1.113883.6.238"

codeSystemName="Race &amp; Ethnicity - CDC"/>

<entryRelationship typeCode="SUBJ" inversionInd="true">

<!-- Aggregate Count template -->

<observation classCode="OBS" moodCode="EVN">

...

</observation>

</entryRelationship>

</observation>

Reporting Parameters Act (V2)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.17.3.8:2020-12-01 (open)]

Table 45: Reporting Parameters Act (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [QRDA Category III Measure Section (V5)](#S_QRDA_Category_III_Measure_Section_V5) (required)  [Promoting Interoperability Measure Section (V3)](#S_Promoting_Interoperability_Measure_Se) (required)  [Improvement Activity Section (V3)](#S_Improvement_Activity_Section_V3) (required) |  |

This template provides information about the reporting time interval and context for the patient data being reported to the receiving organization. The receiving organization may tell the reporting hospitals what information to include, such as dates representing the quarters of the year for which data are desired. The reporting parameter time interval refers to the data being sent in the document and may differ from the quality measure's measurement period or valid dates for the data set.

Table 46: Reporting Parameters Act (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.17.3.8:2020-12-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4484-3269](#C_4484-3269) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [4484-3270](#C_4484-3270) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4484-18098](#C_4484-18098) |  |
| @root | 1..1 | SHALL |  | [4484-18099](#C_4484-18099) | 2.16.840.1.113883.10.20.17.3.8 |
| @extension | 1..1 | SHALL |  | [4484-26552](#C_4484-26552) | 2020-12-01 |
| id | 1..\* | SHALL |  | [4484-26549](#C_4484-26549) |  |
| code | 1..1 | SHALL |  | [4484-3272](#C_4484-3272) |  |
| @code | 1..1 | SHALL |  | [4484-26550](#C_4484-26550) | 252116004 |
| @codeSystem | 1..1 | SHALL |  | [4484-26551](#C_4484-26551) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| effectiveTime | 1..1 | SHALL |  | [4484-3273](#C_4484-3273) |  |
| low | 1..1 | SHALL |  | [4484-3274](#C_4484-3274) |  |
| @value | 1..1 | SHALL |  | [4484-26553](#C_4484-26553) |  |
| high | 1..1 | SHALL |  | [4484-3275](#C_4484-3275) |  |
| @value | 1..1 | SHALL |  | [4484-26555](#C_4484-26555) |  |

1. SHALL contain exactly one [1..1] @classCode="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4484-3269).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4484-3270).
3. SHALL contain exactly one [1..1] templateId (CONF:4484-18098) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.17.3.8" (CONF:4484-18099).
   2. SHALL contain exactly one [1..1] @extension="2020-12-01" (CONF:4484-26552).
4. SHALL contain at least one [1..\*] id (CONF:4484-26549).
5. SHALL contain exactly one [1..1] code (CONF:4484-3272).
   1. This code SHALL contain exactly one [1..1] @code="252116004" Observation Parameters (CONF:4484-26550).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:4484-26551).
6. SHALL contain exactly one [1..1] effectiveTime (CONF:4484-3273).
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4484-3274).
      1. This low SHALL contain exactly one [1..1] @value (CONF:4484-26553).
      2. SHALL be precise to day (CONF:4484-26554).
   2. This effectiveTime SHALL contain exactly one [1..1] high (CONF:4484-3275).
      1. This high SHALL contain exactly one [1..1] @value (CONF:4484-26555).
      2. SHALL be precise to day (CONF:4484-26556).

Figure 35: Reporting Parameters Act (V2) Example

<act classCode="ACT" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.17.3.8" extension="2020-12-01"/>

<id root="55a43e20-6463-46eb-81c3-9a3a1ad41225"/>

<code code="252116004"

codeSystem="2.16.840.1.113883.6.96"

displayName="Observation Parameters"/>

<!-- This reporting period/performance period shows that Good Health Clinic is

sending data for the first quarter of the year. The referenced measure definition may be valid for the entire year or more-->

<effectiveTime>

<low value="20200101"/>

<!-- The first day of the period reported. -->

<high value="20201231"/>

<!-- The last day of the period reported. -->

</effectiveTime>

</act>

Reporting Rate for Proportion Measure

[observation: identifier urn:oid:2.16.840.1.113883.10.20.27.3.15 (open)]

Table 47: Reporting Rate for Proportion Measure Contexts

| Contained By: | Contains: |
| --- | --- |
| [Measure Reference and Results (V4)](#E_Measure_Reference_and_Results_V4) (optional) |  |

This template is only used with proportion measures. This reporting rate represents the percentage of patients in the denominator who fall into one of the other sub-populations. The Reporting Rate is calculated using this formula: Reporting Rate = (Numerator + Numerator Exclusions + Denominator Exclusions + Denominator Exceptions)/(Denominator). The predicted rate (based on the measure's risk-adjustment model) can be captured in the reference range.

Table 48: Reporting Rate for Proportion Measure Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.15) | | | | | |
| @classCode | 1..1 | SHALL |  | [77-18411](#C_77-18411) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [77-18412](#C_77-18412) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [77-21157](#C_77-21157) |  |
| @root | 1..1 | SHALL |  | [77-21158](#C_77-21158) | 2.16.840.1.113883.10.20.27.3.15 |
| code | 1..1 | SHALL |  | [77-18413](#C_77-18413) |  |
| @code | 1..1 | SHALL |  | [77-18414](#C_77-18414) | 72509-3 |
| @codeSystem | 1..1 | SHALL |  | [77-21168](#C_77-21168) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [77-18419](#C_77-18419) |  |
| @code | 1..1 | SHALL |  | [77-18420](#C_77-18420) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | REAL | [77-18415](#C_77-18415) |  |
| referenceRange | 0..1 | MAY |  | [77-18416](#C_77-18416) |  |
| observationRange | 1..1 | SHALL |  | [77-18417](#C_77-18417) |  |
| value | 1..1 | SHALL | REAL | [77-18418](#C_77-18418) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:77-18411).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:77-18412).
3. SHALL contain exactly one [1..1] templateId (CONF:77-21157) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.15" (CONF:77-21158).
4. SHALL contain exactly one [1..1] code (CONF:77-18413).
   1. This code SHALL contain exactly one [1..1] @code="72509-3" Reporting Rate (CONF:77-18414).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:77-21168).
5. SHALL contain exactly one [1..1] statusCode (CONF:77-18419).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:77-18420).
6. SHALL contain exactly one [1..1] value with @xsi:type="REAL" (CONF:77-18415).

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

1. MAY contain zero or one [0..1] referenceRange (CONF:77-18416).
   1. The referenceRange, if present, SHALL contain exactly one [1..1] observationRange (CONF:77-18417).
      1. This observationRange SHALL contain exactly one [1..1] value with @xsi:type="REAL" (CONF:77-18418).

Figure 36: Reporting Rate for Proportion Measure Example

<observation classCode="OBS" moodCode="EVN">

<!-- MAY 0..1 Reporting Rate for Proportion Measure template -->

<templateId root="2.16.840.1.113883.10.20.27.3.15"/>

<code code="72509-3" codeSystem="2.16.840.1.113883.6.1"

displayName="Reporting Rate"

codeSystemName="LOINC"/>

<statusCode code="completed"/>

<value xsi:type="REAL" value="0.84"/>

</observation>

Reporting Stratum

[observation: identifier urn:oid:2.16.840.1.113883.10.20.27.3.4 (open)]

Table 49: Reporting Stratum Contexts

| Contained By: | Contains: |
| --- | --- |
| [Measure Data (V3)](#E_Measure_Data_V3) (optional) | [Aggregate Count](#E_Aggregate_Count) (required)  [Continuous Variable Measure Value](#E_Continuous_Variable_Measure_Value) (optional) |

This observation uses the reference/externalObservation element to reference the stratification used in the quality measure. The definition of the stratification is in the corresponding eCQM. The Reporting Stratum also provides the number of patients in the referenced stratification. Stratifications are used to classify populations into 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.

Table 50: Reporting Stratum Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.4) | | | | | |
| @classCode | 1..1 | SHALL |  | [77-17575](#C_77-17575) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [77-17576](#C_77-17576) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [77-18093](#C_77-18093) |  |
| @root | 1..1 | SHALL |  | [77-18094](#C_77-18094) | 2.16.840.1.113883.10.20.27.3.4 |
| code | 1..1 | SHALL |  | [77-17577](#C_77-17577) |  |
| @code | 1..1 | SHALL |  | [77-17578](#C_77-17578) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [77-21169](#C_77-21169) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [77-17579](#C_77-17579) |  |
| @code | 1..1 | SHALL |  | [77-18201](#C_77-18201) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 0..1 | SHOULD |  | [77-17580](#C_77-17580) |  |
| entryRelationship | 1..1 | SHALL |  | [77-17581](#C_77-17581) |  |
| @typeCode | 1..1 | SHALL |  | [77-17582](#C_77-17582) | SUBJ |
| @inversionInd | 1..1 | SHALL |  | [77-17583](#C_77-17583) | true |
| observation | 1..1 | SHALL |  | [77-17584](#C_77-17584) | [Aggregate Count (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3](#E_Aggregate_Count)) |
| entryRelationship | 0..\* | MAY |  | [77-19511](#C_77-19511) |  |
| observation | 1..1 | SHALL |  | [77-19513](#C_77-19513) | [Continuous Variable Measure Value (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.2](#E_Continuous_Variable_Measure_Value)) |
| reference | 1..1 | SHALL |  | [77-18204](#C_77-18204) |  |
| @typeCode | 1..1 | SHALL |  | [77-18205](#C_77-18205) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| externalObservation | 1..1 | SHALL |  | [77-18206](#C_77-18206) |  |
| id | 1..1 | SHALL |  | [77-18207](#C_77-18207) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:77-17575).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:77-17576).
3. SHALL contain exactly one [1..1] templateId (CONF:77-18093) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.4" (CONF:77-18094).
4. SHALL contain exactly one [1..1] code (CONF:77-17577).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:77-17578).
   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:77-21169).
5. SHALL contain exactly one [1..1] statusCode (CONF:77-17579).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:77-18201).
6. SHOULD contain zero or one [0..1] value (CONF:77-17580).
   1. If this Reporting Stratum references an eCQM, and the value of externalObservation/id equals the reference stratification id defined in the eCQM, then this value SHALL be the same as the contents of the observation/code element in the eCQM that is defined along with the observation/id element (CONF:77-18259).
7. SHALL contain exactly one [1..1] entryRelationship (CONF:77-17581) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" (CONF:77-17582).
   2. SHALL contain exactly one [1..1] @inversionInd="true" (CONF:77-17583).
   3. SHALL contain exactly one [1..1] [Aggregate Count](#E_Aggregate_Count) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3) (CONF:77-17584).

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.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:77-19511) such that it
   1. SHALL contain exactly one [1..1] [Continuous Variable Measure Value](#E_Continuous_Variable_Measure_Value) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.2) (CONF:77-19513).
2. SHALL contain exactly one [1..1] reference (CONF:77-18204).
   1. This reference SHALL contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:77-18205).
   2. This reference SHALL contain exactly one [1..1] externalObservation (CONF:77-18206).

If this reference is to an eCQM, this id equals the referenced stratification id defined in the eCQM.

* + 1. This externalObservation SHALL contain exactly one [1..1] id (CONF:77-18207).

Figure 37: Reporting Stratum Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.27.3.4"/>

<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 -->

<observation classCode="OBS" moodCode="EVN">

...

</observation>

</entryRelationship>

<reference typeCode="REFR">

<!-- reference to the relevant reporting stratum in the eCQM -->

<externalObservation classCode="OBS" moodCode="EVN">

<id root="EA32A714-3087-469C-B034-64883750692D"/>

</externalObservation>

</reference>

</observation>

Figure 38: Corresponding eCQM Example

<!-- This is an HQMF snippet for a reporting stratum from eCQM CMS154v9 -->

<stratifierCriteria>

<id extension="Stratifiers" root="EA32A714-3087-469C-B034-64883750692D"/>

<code code="STRAT" codeSystem="2.16.840.1.113883.5.4" codeSystemName="Act Code"/>

<precondition typeCode="PRCN">

<criteriaReference classCode="OBS" moodCode="EVN">

<id extension="AppropriateTreatmentforUpperRespiratoryInfectionURI.&quot;Stratification 1&quot;" root="703BD73F-AD41-4A80-A26F-56AC087EA788"/>

</criteriaReference>

</precondition>

</stratifierCriteria>

Sex Supplemental Data Element (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.27.3.6:2016-09-01 (open)]

Table 51: Sex Supplemental Data Element (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Measure Data (V3)](#E_Measure_Data_V3) (optional) | [Aggregate Count](#E_Aggregate_Count) (required) |

This observation represents the sex of a person as used for adminstrative purposes (as opposed to clinical gender) and provides the number of patients in the population that are of that sex.

Table 52: Sex Supplemental Data Element (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.6:2016-09-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3259-18230](#C_3259-18230) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3259-18231](#C_3259-18231) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3259-18232](#C_3259-18232) |  |
| @root | 1..1 | SHALL |  | [3259-18233](#C_3259-18233) | 2.16.840.1.113883.10.20.27.3.6 |
| @extension | 1..1 | SHALL |  | [3259-21160](#C_3259-21160) | 2016-09-01 |
| code | 1..1 | SHALL |  | [3259-18234](#C_3259-18234) |  |
| @code | 1..1 | SHALL |  | [3259-18235](#C_3259-18235) | 76689-9 |
| @codeSystem | 1..1 | SHALL |  | [3259-21163](#C_3259-21163) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [3259-18124](#C_3259-18124) |  |
| @code | 1..1 | SHALL |  | [3259-18125](#C_3259-18125) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [3259-18236](#C_3259-18236) | urn:oid:2.16.840.1.113762.1.4.1 (ONC Administrative Sex) |
| entryRelationship | 1..1 | SHALL |  | [3259-18126](#C_3259-18126) |  |
| @typeCode | 1..1 | SHALL |  | [3259-18127](#C_3259-18127) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| @inversionInd | 1..1 | SHALL |  | [3259-18128](#C_3259-18128) | true |
| observation | 1..1 | SHALL |  | [3259-18129](#C_3259-18129) | [Aggregate Count (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3](#E_Aggregate_Count)) |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3259-18230).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:3259-18231).
3. SHALL contain exactly one [1..1] templateId (CONF:3259-18232) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.6" (CONF:3259-18233).
   2. SHALL contain exactly one [1..1] @extension="2016-09-01" (CONF:3259-21160).
4. SHALL contain exactly one [1..1] code (CONF:3259-18234).
   1. This code SHALL contain exactly one [1..1] @code="76689-9" Sex assigned at birth (CONF:3259-18235).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 STATIC) (CONF:3259-21163).
5. SHALL contain exactly one [1..1] statusCode (CONF:3259-18124).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:3259-18125).
6. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet [ONC Administrative Sex](#ONC_Administrative_Sex) urn:oid:2.16.840.1.113762.1.4.1 DYNAMIC (CONF:3259-18236).
7. SHALL contain exactly one [1..1] entryRelationship (CONF:3259-18126) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:3259-18127).
   2. SHALL contain exactly one [1..1] @inversionInd="true" (CONF:3259-18128).
   3. SHALL contain exactly one [1..1] [Aggregate Count](#E_Aggregate_Count) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3) (CONF:3259-18129).

Figure 39: Sex Supplemental Data Element (V3) Example

<observation classCode="OBS" moodCode="EVN">

<!-- Sex Supplemental Data Element (V3) -->

<templateId root="2.16.840.1.113883.10.20.27.3.6" extension="2016-09-01"/>

<code code="76689-9"

displayName="Sex assigned at birth"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"/>

<statusCode code="completed"/>

<value xsi:type="CD"

code="F"

codeSystem="2.16.840.1.113883.5.1"

codeSystemName="AdministrativeGender"/>

<entryRelationship typeCode="SUBJ" inversionInd="true">

<!-- Aggregate Count template -->

<observation classCode="OBS" moodCode="EVN">

...

</observation>

</entryRelationship>

</observation>

# Template Ids in This Guide

Table 53: Template List

| Template Title | Template Type | templateId |
| --- | --- | --- |
| [QRDA Category III Report (V5)](#D_QRDA_Category_III_Report_V5) | document | urn:hl7ii:2.16.840.1.113883.10.20.27.1.1:2020-12-01 |
| [Improvement Activity Section (V3)](#S_Improvement_Activity_Section_V3) | section | urn:hl7ii:2.16.840.1.113883.10.20.27.2.4:2020-12-01 |
| [Measure Section](#S_Measure_Section) | section | urn:oid:2.16.840.1.113883.10.20.24.2.2 |
| [Promoting Interoperability Measure Section (V3)](#S_Promoting_Interoperability_Measure_Se) | section | urn:hl7ii:2.16.840.1.113883.10.20.27.2.5:2020-12-01 |
| [QRDA Category III Measure Section (V5)](#S_QRDA_Category_III_Measure_Section_V5) | section | urn:hl7ii:2.16.840.1.113883.10.20.27.2.1:2020-12-01 |
| [Aggregate Count](#E_Aggregate_Count) | entry | urn:oid:2.16.840.1.113883.10.20.27.3.3 |
| [Continuous Variable Measure Value](#E_Continuous_Variable_Measure_Value) | entry | urn:oid:2.16.840.1.113883.10.20.27.3.2 |
| [Ethnicity Supplemental Data Element (V2)](#E_Ethnicity_Supplemental_Data_Element_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.7:2016-09-01 |
| [Improvement Activity Performed Measure Reference and Results](#E_Improvement_Activity_Performed_Measur) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.33:2016-09-01 |
| [Measure Data (V3)](#E_Measure_Data_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.5:2016-09-01 |
| [Measure Performed](#E_Measure_Performed) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.27:2016-09-01 |
| [Measure Reference](#E_Measure_Reference) | entry | urn:oid:2.16.840.1.113883.10.20.24.3.98 |
| [Measure Reference and Results (V4)](#E_Measure_Reference_and_Results_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.1:2020-12-01 |
| [Payer Supplemental Data Element (V2)](#E_Payer_Supplemental_Data_Element_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.9:2016-02-01 |
| [Performance Rate](#E_Performance_Rate) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.30:2016-09-01 |
| [Performance Rate for Proportion Measure (V3)](#E_Performance_Rate_for_Proportion_v3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.14:2020-12-01 |
| [Postal Code Supplemental Data Element (V2)](#E_Postal_Code_Supplemental_Data_Element_) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.10:2016-09-01 |
| [Promoting Interoperability Measure Performed Measure Reference and Results](#E_Promoting_Interoperability_Measure_Pe) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.29:2016-09-01 |
| [Promoting Interoperability Numerator Denominator Type Measure Denominator Data](#E_Promoting_Interoperability_Numera) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.32:2016-09-01 |
| [Promoting Interoperability Numerator Denominator Type Measure Numerator Data](#E_Promoting_Interoperability_Numerator_) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.31:2016-09-01 |
| [Promoting Interoperability Numerator Denominator Type Measure Reference and Results (V2)](#E_Promoting_Interoperability_Numer_) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.28:2017-06-01 |
| [Race Supplemental Data Element (V2)](#E_Race_Supplemental_Data_Element_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.8:2016-09-01 |
| [Reporting Parameters Act (V2)](#E_Reporting_Parameters_Act_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.17.3.8:2020-12-01 |
| [Reporting Rate for Proportion Measure](#E_Reporting_Rate_for_Proportion_Measure) | entry | urn:oid:2.16.840.1.113883.10.20.27.3.15 |
| [Reporting Stratum](#E_Reporting_Stratum) | entry | urn:oid:2.16.840.1.113883.10.20.27.3.4 |
| [Sex Supplemental Data Element (V3)](#E_Sex_Supplemental_Data_Element_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.6:2016-09-01 |

Table 54: Template Containments

| Template Title | Template Type | templateId |
| --- | --- | --- |
| [QRDA Category III Report (V5)](#D_QRDA_Category_III_Report_V5) | document | urn:hl7ii:2.16.840.1.113883.10.20.27.1.1:2020-12-01 |
| [QRDA Category III Measure Section (V5)](#S_QRDA_Category_III_Measure_Section_V5) | section | urn:hl7ii:2.16.840.1.113883.10.20.27.2.1:2020-12-01 |
| [Measure Reference and Results (V4)](#E_Measure_Reference_and_Results_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.1:2020-12-01 |
| [Reporting Rate for Proportion Measure](#E_Reporting_Rate_for_Proportion_Measure) | entry | urn:oid:2.16.840.1.113883.10.20.27.3.15 |
| [Measure Data (V3)](#E_Measure_Data_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.5:2016-09-01 |
| [Aggregate Count](#E_Aggregate_Count) | entry | urn:oid:2.16.840.1.113883.10.20.27.3.3 |
| [Continuous Variable Measure Value](#E_Continuous_Variable_Measure_Value) | entry | urn:oid:2.16.840.1.113883.10.20.27.3.2 |
| [Reporting Stratum](#E_Reporting_Stratum) | entry | urn:oid:2.16.840.1.113883.10.20.27.3.4 |
| [Aggregate Count](#E_Aggregate_Count) | entry | urn:oid:2.16.840.1.113883.10.20.27.3.3 |
| [Continuous Variable Measure Value](#E_Continuous_Variable_Measure_Value) | entry | urn:oid:2.16.840.1.113883.10.20.27.3.2 |
| [Payer Supplemental Data Element (V2)](#E_Payer_Supplemental_Data_Element_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.9:2016-02-01 |
| [Aggregate Count](#E_Aggregate_Count) | entry | urn:oid:2.16.840.1.113883.10.20.27.3.3 |
| [Sex Supplemental Data Element (V3)](#E_Sex_Supplemental_Data_Element_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.6:2016-09-01 |
| [Aggregate Count](#E_Aggregate_Count) | entry | urn:oid:2.16.840.1.113883.10.20.27.3.3 |
| [Ethnicity Supplemental Data Element (V2)](#E_Ethnicity_Supplemental_Data_Element_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.7:2016-09-01 |
| [Aggregate Count](#E_Aggregate_Count) | entry | urn:oid:2.16.840.1.113883.10.20.27.3.3 |
| [Postal Code Supplemental Data Element (V2)](#E_Postal_Code_Supplemental_Data_Element_) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.10:2016-09-01 |
| [Aggregate Count](#E_Aggregate_Count) | entry | urn:oid:2.16.840.1.113883.10.20.27.3.3 |
| [Race Supplemental Data Element (V2)](#E_Race_Supplemental_Data_Element_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.8:2016-09-01 |
| [Aggregate Count](#E_Aggregate_Count) | entry | urn:oid:2.16.840.1.113883.10.20.27.3.3 |
| [Performance Rate for Proportion Measure (V3)](#E_Performance_Rate_for_Proportion_v3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.14:2020-12-01 |
| [Reporting Parameters Act (V2)](#E_Reporting_Parameters_Act_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.17.3.8:2020-12-01 |
| [Promoting Interoperability Measure Section (V3)](#S_Promoting_Interoperability_Measure_Se) | section | urn:hl7ii:2.16.840.1.113883.10.20.27.2.5:2020-12-01 |
| [Promoting Interoperability Measure Performed Measure Reference and Results](#E_Promoting_Interoperability_Measure_Pe) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.29:2016-09-01 |
| [Measure Performed](#E_Measure_Performed) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.27:2016-09-01 |
| [Promoting Interoperability Numerator Denominator Type Measure Reference and Results (V2)](#E_Promoting_Interoperability_Numer_) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.28:2017-06-01 |
| [Performance Rate](#E_Performance_Rate) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.30:2016-09-01 |
| [Promoting Interoperability Numerator Denominator Type Measure Numerator Data](#E_Promoting_Interoperability_Numerator_) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.31:2016-09-01 |
| [Aggregate Count](#E_Aggregate_Count) | entry | urn:oid:2.16.840.1.113883.10.20.27.3.3 |
| [Promoting Interoperability Numerator Denominator Type Measure Denominator Data](#E_Promoting_Interoperability_Numera) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.32:2016-09-01 |
| [Aggregate Count](#E_Aggregate_Count) | entry | urn:oid:2.16.840.1.113883.10.20.27.3.3 |
| [Reporting Parameters Act (V2)](#E_Reporting_Parameters_Act_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.17.3.8:2020-12-01 |
| [Improvement Activity Section (V3)](#S_Improvement_Activity_Section_V3) | section | urn:hl7ii:2.16.840.1.113883.10.20.27.2.4:2020-12-01 |
| [Improvement Activity Performed Measure Reference and Results](#E_Improvement_Activity_Performed_Measur) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.33:2016-09-01 |
| [Measure Performed](#E_Measure_Performed) | entry | urn:hl7ii:2.16.840.1.113883.10.20.27.3.27:2016-09-01 |
| [Reporting Parameters Act (V2)](#E_Reporting_Parameters_Act_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.17.3.8:2020-12-01 |
| [Measure Section](#S_Measure_Section) | section | urn:oid:2.16.840.1.113883.10.20.24.2.2 |
| [Measure Reference](#E_Measure_Reference) | entry | urn:oid:2.16.840.1.113883.10.20.24.3.98 |

# Value Sets In This Guide

Table 55: Language

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Language urn:oid:2.16.840.1.113883.1.11.11526  A value set of codes defined by Internet RFC 5646.   Use 2 character code if one exists. Use 3 character code if a 2 character code does not exist. Including type = region is allowed  See http://www.iana.org/assignments/language-subtag-registry/language-subtag-registry  Value Set Source: <http://www.loc.gov/standards/iso639-2/php/code_list.php> | | | |
| Code | Code System | Code System OID | Print Name |
| aa | Language | urn:oid:2.16.840.1.113883.6.121 | Afar |
| ab | Language | urn:oid:2.16.840.1.113883.6.121 | Abkhazian |
| ace | Language | urn:oid:2.16.840.1.113883.6.121 | Achinese |
| ach | Language | urn:oid:2.16.840.1.113883.6.121 | Acoli |
| ada | Language | urn:oid:2.16.840.1.113883.6.121 | Adangme |
| ady | Language | urn:oid:2.16.840.1.113883.6.121 | Adyghe; Adygei |
| ae | Language | urn:oid:2.16.840.1.113883.6.121 | Avestan |
| af | Language | urn:oid:2.16.840.1.113883.6.121 | Afrikaans |
| afa | Language | urn:oid:2.16.840.1.113883.6.121 | Afro-Asiatic (Other) |
| afh | Language | urn:oid:2.16.840.1.113883.6.121 | Afrihili |
| ... | | | |

Table 56: HL7 BasicConfidentialityKind

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: HL7 BasicConfidentialityKind urn:oid:2.16.840.1.113883.1.11.16926  (Clinical Focus: Commonly used confidentiality constraints placed upon clinical documents),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 6/25/2019 with a version of 20190425.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.16926/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| N | HL7Confidentiality | urn:oid:2.16.840.1.113883.5.25 | normal |
| R | HL7Confidentiality | urn:oid:2.16.840.1.113883.5.25 | restricted |
| V | HL7Confidentiality | urn:oid:2.16.840.1.113883.5.25 | very restricted |

Table 57: ObservationMethodAggregate

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: ObservationMethodAggregate urn:oid:2.16.840.1.113883.1.11.20450 | | | |
| Code | Code System | Code System OID | Print Name |
| AVERAGE | HL7ObservationMethod | urn:oid:2.16.840.1.113883.5.84 | Average |
| COUNT | HL7ObservationMethod | urn:oid:2.16.840.1.113883.5.84 | Count |
| MAX | HL7ObservationMethod | urn:oid:2.16.840.1.113883.5.84 | Maxima |
| MEDIAN | HL7ObservationMethod | urn:oid:2.16.840.1.113883.5.84 | Median |
| MIN | HL7ObservationMethod | urn:oid:2.16.840.1.113883.5.84 | Minima |
| MODE | HL7ObservationMethod | urn:oid:2.16.840.1.113883.5.84 | Mode |
| STDEV.P | HL7ObservationMethod | urn:oid:2.16.840.1.113883.5.84 | Population Standard Deviation |
| STDEV.S | HL7ObservationMethod | urn:oid:2.16.840.1.113883.5.84 | Sample Standard Deviation |
| SUM | HL7ObservationMethod | urn:oid:2.16.840.1.113883.5.84 | Sum |
| VARIANCE.P | HL7ObservationMethod | urn:oid:2.16.840.1.113883.5.84 | Population Variance |
| ... | | | |

Table 58: Ethnicity

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Ethnicity urn:oid:2.16.840.1.114222.4.11.837  (Clinical Focus: ),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.837/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 2135-2 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Hispanic or Latino |
| 2186-5 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Not Hispanic or Latino |

Table 59: PopulationInclusionObservationType

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: PopulationInclusionObservationType urn:oid:2.16.840.1.113883.1.11.20476 | | | |
| Code | Code System | Code System OID | Print Name |
| DENEX | HL7ActCode | urn:oid:2.16.840.1.113883.5.4 | denominator exclusions |
| DENEXCEP | HL7ActCode | urn:oid:2.16.840.1.113883.5.4 | denominator exceptions |
| DENOM | HL7ActCode | urn:oid:2.16.840.1.113883.5.4 | denominator |
| IPOP | HL7ActCode | urn:oid:2.16.840.1.113883.5.4 | initial population |
| IPPOP | HL7ActCode | urn:oid:2.16.840.1.113883.5.4 | initial patient population |
| MSRPOPL | HL7ActCode | urn:oid:2.16.840.1.113883.5.4 | measure population |
| MSRPOPLEX | HL7ActCode | urn:oid:2.16.840.1.113883.5.4 | measure population exclusions |
| NUMER | HL7ActCode | urn:oid:2.16.840.1.113883.5.4 | numerator |
| NUMEX | HL7ActCode | urn:oid:2.16.840.1.113883.5.4 | numerator exclusions |
| ... | | | |

Table 60: Yes No Indicator (HL7)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Yes No Indicator (HL7) urn:oid:2.16.840.1.114222.4.11.819  Value set used to respond to any question that can be answered only Yes or No.  Value Set Source: <https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.819> | | | |
| Code | Code System | Code System OID | Print Name |
| Y | Yes/No Indicator (HL7 Table 0136) | urn:oid:2.16.840.1.113883.12.136 | Yes |
| N | Yes/No Indicator (HL7 Table 0136) | urn:oid:2.16.840.1.113883.12.136 | No |

Table 61: Payer

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Payer urn:oid:2.16.840.1.114222.4.11.3591  (Clinical Focus: Categories of types of health care payor entities as defined by the US Public Health Data Consortium SOP code system),(Data Element Scope: @code in CCDA r2.1 template Planned Coverage [act: identifier urn:oid:2.16.840.1.113883.10.20.22.4.129 (open)] DYNAMIC),(Inclusion Criteria: All codes in the code system),(Exclusion Criteria: none)  This value set was imported on 7/25/2019 with a version of 20180718.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3591/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1 | Source of Payment Typology (PHDSC) | urn:oid:2.16.840.1.113883.3.221.5 | MEDICARE |
| 11 | Source of Payment Typology (PHDSC) | urn:oid:2.16.840.1.113883.3.221.5 | Medicare (Managed Care) |
| 111 | Source of Payment Typology (PHDSC) | urn:oid:2.16.840.1.113883.3.221.5 | Medicare HMO |
| 112 | Source of Payment Typology (PHDSC) | urn:oid:2.16.840.1.113883.3.221.5 | Medicare PPO |
| 113 | Source of Payment Typology (PHDSC) | urn:oid:2.16.840.1.113883.3.221.5 | Medicare POS |
| 119 | Source of Payment Typology (PHDSC) | urn:oid:2.16.840.1.113883.3.221.5 | Medicare Managed Care Other |
| 12 | Source of Payment Typology (PHDSC) | urn:oid:2.16.840.1.113883.3.221.5 | Medicare (Non-managed Care) |
| 121 | Source of Payment Typology (PHDSC) | urn:oid:2.16.840.1.113883.3.221.5 | Medicare FFS |
| 122 | Source of Payment Typology (PHDSC) | urn:oid:2.16.840.1.113883.3.221.5 | Medicare Drug Benefit |
| 123 | Source of Payment Typology (PHDSC) | urn:oid:2.16.840.1.113883.3.221.5 | Medicare Medical Savings Account (MSA) |
| ... | | | |

Table 62: Race

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Race urn:oid:2.16.840.1.114222.4.11.836  Code System: Race & Ethnicity - CDC 2.16.840.1.113883.6.238  Value Set Source: <https://phinvads.cdc.gov/vads/ViewValueSet.action?id=67D34BBC-617F-DD11-B38D-00188B398520> | | | |
| Code | Code System | Code System OID | Print Name |
| 1002-5 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | American Indian or Alaska Native |
| 2028-9 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Asian |
| 2054-5 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Black or African American |
| 2076-8 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Native Hawaiian or Other Pacific Islander |
| 2106-3 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | White |
| 2131-1 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Other Race |

Table 63: ONC Administrative Sex

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: ONC Administrative Sex urn:oid:2.16.840.1.113762.1.4.1  (Clinical Focus: Gender identity restricted to only Male and Female used in administrative situations requiring a restriction to these two categories.),(Data Element Scope: Gender),(Inclusion Criteria: Male and Female only.),(Exclusion Criteria: Any gender identity that is not male or female.)  This value set was imported on 10/17/2019 with a version of 20190425.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| F | Administrative Gender | urn:oid:2.16.840.1.113883.5.1 | Female |
| M | Administrative Gender | urn:oid:2.16.840.1.113883.5.1 | Male |

# Code Systems in This Guide

Table 64: Code Systems

| Name | OID |
| --- | --- |
| Administrative Gender | urn:oid:2.16.840.1.113883.5.1 |
| HL7ActClass | urn:oid:2.16.840.1.113883.5.6 |
| HL7ActCode | urn:oid:2.16.840.1.113883.5.4 |
| HL7ActMood | urn:oid:2.16.840.1.113883.5.1001 |
| HL7ActReason | urn:oid:2.16.840.1.113883.5.8 |
| HL7ActRelationshipType | urn:oid:2.16.840.1.113883.5.1002 |
| HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 |
| HL7Confidentiality | urn:oid:2.16.840.1.113883.5.25 |
| HL7EntityClass | urn:oid:2.16.840.1.113883.5.41 |
| HL7ObservationMethod | urn:oid:2.16.840.1.113883.5.84 |
| HL7ObservationValue | urn:oid:2.16.840.1.113883.5.1063 |
| HL7ParticipationSignature | urn:oid:2.16.840.1.113883.5.89 |
| HL7ParticipationType | urn:oid:2.16.840.1.113883.5.90 |
| HL7RoleClass | urn:oid:2.16.840.1.113883.5.110 |
| Language | urn:oid:2.16.840.1.113883.6.121 |
| LOINC | urn:oid:2.16.840.1.113883.6.1 |
| NCI Thesaurus (NCIt) | urn:oid:2.16.840.1.113883.3.26.1.1 |
| Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 |
| SNOMED CT | urn:oid:2.16.840.1.113883.6.96 |
| Source of Payment Typology (PHDSC) | urn:oid:2.16.840.1.113883.3.221.5 |
| UCUM | urn:oid:1.3.6.1.4.1.12009.10.3.1 |
| Yes/No Indicator (HL7 Table 0136) | urn:oid:2.16.840.1.113883.12.136 |

# Changes from Previous Version

QRDA Category III Report (V5)

[QRDA Category III Report (V5) (urn:hl7ii:2.16.840.1.113883.10.20.27.1.1:2020-12-01)](#D_QRDA_Category_III_Report_V5)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Published |
| Name | QRDA Category III Report (V4) | QRDA Category III Report (V5) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.27.1.1:2017-06-01 | urn:hl7ii:2.16.840.1.113883.10.20.27.1.1:2020-12-01 |
| Description | This template describes constraints that apply to the Quality Reporting Document Architecture (QRDA) Document Category III Report. Document-level templates describe the rules for constructing a conforming CDA document. Document templates 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   A QRDA Category III Report must contain at least one QRDA Category III Measure Section, or an improvement activity Section, or an advancing care information Section. | This template describes constraints that apply to the Quality Reporting Document Architecture (QRDA) Document Category III Report. Document-level templates describe the rules for constructing a conforming CDA document. Document templates 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   A QRDA Category III Report must contain at least one QRDA Category III Measure Section, or an Improvement Activity Section, or a Promoting Interoperability Measure Section. |
| CONF #: 4484-21448 Added |  | Heading: participant (Participant is Location)  Participant is a location is represented as setting the generic participant with a participationType of 'LOC' (location) and an associatedEntity classCode of 'SDLOC' (service delivery location).  MAY contain zero or more [0..\*] participant (CONF:4484-21448) such that it |
| CONF #: 4484-21449 Added |  | SHALL contain exactly one [1..1] associatedEntity (CONF:4484-21449). |
| CONF #: 4484-21450 Added |  | This associatedEntity SHALL contain exactly one [1..1] code (CONF:4484-21450). |
| CONF #: 4484-21452 Added |  | SHALL contain exactly one [1..1] @extension (CONF:4484-21452).  Note: The value of @extension is the CMS EHR Certification ID |
| CONF #: 4484-21453 Added |  | SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4484-21453). |
| CONF #: 4484-21454 Added |  | This associatedEntity SHALL contain exactly one [1..1] @classCode="SDLOC" Service Delivery Location (CONF:4484-21454). |
| CONF #: 4484-21455 Added |  | This associatedEntity SHALL contain at least one [1..\*] id (CONF:4484-21455). |
| CONF #: 4484-21456 Added |  | This code SHALL contain exactly one [1..1] @code="394730007" Healthcare Related Organization (CONF:4484-21456). |
| CONF #: 4484-21457 Added |  | This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:4484-21457). |
| CONF #: 4484-21458 Added |  | This associatedEntity SHALL contain exactly one [1..1] addr (CONF:4484-21458). |
| CONF #: 3338-17281 Removed | This structuredBody MAY contain zero or one [0..1] component (CONF:3338-17281) such that it |  |
| CONF #: 3338-18380 Removed | If the EHR has a CMS Security Code (a unique identifier assigned by CMS for each qualified EHR vendor application), the value of the root attribute is as specified and the value of the extension attribute is the CMS Security Code.  This associatedEntity MAY contain zero or one [0..1] id (CONF:3338-18380) such that it |  |
| CONF #: 3338-17282 Removed | SHALL contain exactly one [1..1] section (CONF:3338-17282). |  |
| CONF #: 3338-18381 Removed | SHALL contain exactly one [1..1] @root="2.16.840.1.113883.3.249.21" CMS Certified EHR Security Code Identifier (CONF:3338-18381). |  |
| CONF #: 4484-17217 Modified | A QRDA Category III document contains a Reporting Parameters Section and a Measure section.  SHALL contain exactly one [1..1] component (CONF:3338-17217). | Heading: component  A QRDA Category III document must contain at least a QRDA Category III Measure section, an Improvement Activity section, or a Promoting Interoperability Measure section. The performance period for each performance category must be specified using the Reporting Parameters Act template in each section.  SHALL contain exactly one [1..1] component (CONF:4484-17217). |
| CONF #: 4484-17225 Modified | Heading: legalAuthenticator  SHALL contain exactly one [1..1] legalAuthenticator (CONF:3338-17225). | Heading: legalAuthenticator  The legalAuthenticator identifies the single person legally responsible for the document and must be present if the document has been legally authenticated. A clinical document that does not contain this element has not been legally authenticated. The act of legal authentication requires a certain privilege be granted to the legal authenticator depending upon local policy. Based on local practice, clinical documents may be released before legal authentication. All clinical documents have the potential for legal authentication, given the appropriate credentials. Local policies MAY choose to delegate the function of legal authentication to a device or system that generates the clinical document. In these cases, the legal authenticator is a person accepting responsibility for the document, not the generating device or system. Note that the legal authenticator, if present, must be a person.  SHOULD contain zero or one [0..1] legalAuthenticator (CONF:4484-17225). |
| CONF #: 4484-18168 Modified | This legalAuthenticator SHALL contain exactly one [1..1] signatureCode (CONF:3338-18168). | The legalAuthenticator, if present, SHALL contain exactly one [1..1] signatureCode (CONF:4484-18168). |
| CONF #: 4484-19670 Modified | This legalAuthenticator SHALL contain exactly one [1..1] assignedEntity (CONF:3338-19670). | The legalAuthenticator, if present, SHALL contain exactly one [1..1] assignedEntity (CONF:4484-19670). |
| CONF #: 4484-18170 Modified | Heading: 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.  MAY contain zero or one [0..1] documentationOf (CONF:3338-18170). | Heading: 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.  SHALL contain exactly one [1..1] documentationOf (CONF:4484-18170). |
| CONF #: 4484-18171 Modified | The documentationOf, if present, SHALL contain exactly one [1..1] serviceEvent (CONF:3338-18171). | This documentationOf SHALL contain exactly one [1..1] serviceEvent (CONF:4484-18171). |
| CONF #: 4484-18177 Modified | This assignedEntity id/@root coupled with the id/@extension can be used to represent the individual provider's National Provider Identification number (NPI). Other assignedEntity ids may be present.  This assignedEntity SHALL contain exactly one [1..1] id (CONF:3338-18177) such that it | 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 SHOULD contain zero or one [0..1] id (CONF:4484-18177) such that it |
| CONF #: 4484-18183 Modified | This representedOrganization id/@root coupled with the id/@extension represents the organization's Facility CMS Certification Number (CCN). Other representedOrganization ids may be present.  This representedOrganization MAY contain zero or one [0..1] id (CONF:3338-18183) such that it | This representedOrganization id/@root coupled with the id/@extension represents the organization's CMS Certification Number (CCN). Other representedOrganization ids may be present.  This representedOrganization MAY contain zero or one [0..1] id (CONF:4484-18183) such that it |
| CONF #: 4484-18300 Modified | Heading: participant  The generic participant with a participationType of device and an associatedEntity class code of RGPR (regulated product) is used to represent Electronic Health Record (EHR) government agency certification identifiers.  MAY contain zero or more [0..\*] participant (CONF:3338-18300) such that it | Heading: participant  The generic participant with a participationType of device and an associatedEntity class code of RGPR (regulated product) is used to represent Electronic Health Record (EHR) government agency certification identifiers.  MAY contain zero or more [0..\*] participant (CONF:4484-18300) such that it |
| CONF #: 4484-18304 Modified | If the EHR has an ONC Certification Number, the value of the root attribute is as specified and the value of the extension attribute is the Certification Number.  This associatedEntity MAY contain zero or one [0..1] id (CONF:3338-18304) such that it | This associatedEntity MAY contain zero or one [0..1] id (CONF:4484-18304) such that it |
| CONF #: 4484-21319 Modified | SHALL contain exactly one [1..1] @extension="2017-06-01" (CONF:3338-21319). | SHALL contain exactly one [1..1] @extension="2020-12-01" (CONF:4484-21319). |
| CONF #: 4484-21394 Modified | This structuredBody SHALL contain at least a QRDA Category III Measure Section (V4), or an Improvement Activity Section (V2), or an Advancing Care Information Section (V2) (CONF:3338-21394). | This structuredBody SHALL contain at least a QRDA Category III Measure Section (V5), or an Improvement Activity Section (V3), or a Promoting Interoperability Measure Section (V3) (CONF:4484-21394). |
| CONF #: 4484-18169 Modified | This signatureCode SHALL contain exactly one [1..1] @code="S" (CONF:3338-18169). | This signatureCode SHALL contain exactly one [1..1] @code="S" (CodeSystem: HL7ParticipationSignature urn:oid:2.16.840.1.113883.5.89 STATIC) (CONF:4484-18169). |
| CONF #: 4484-18167 Modified | This legalAuthenticator SHALL contain exactly one [1..1] time (CONF:3338-18167). | The legalAuthenticator, if present, SHALL contain exactly one [1..1] time (CONF:4484-18167). |
| CONF #: 4484-18178 Modified | MAY contain zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider ID (CONF:3338-18178). | SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.6" National Provider ID (CONF:4484-18178). |
| CONF #: 4484-18184 Modified | SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.336" Facility CMS Certification Number (CONF:3338-18184). | SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.336" CMS Certification Number (CONF:4484-18184). |
| CONF #: 4484-18305 Modified | SHALL contain exactly one [1..1] @root="2.16.840.1.113883.3.2074.1" Office of the National Coordinator Certification Number (CONF:3338-18305). | SHALL contain exactly one [1..1] @root="2.16.840.1.113883.3.2074.1" CMS EHR Certification ID (CONF:4484-18305). |
| CONF #: 4484-18260 Modified | SHOULD contain zero or one [0..1] versionNumber (CONF:3338-18260). | Heading: versionNumber  SHOULD contain zero or one [0..1] versionNumber (CONF:4484-18260). |

Measure Reference and Results (V4)

[Measure Reference and Results (V4) (urn:hl7ii:2.16.840.1.113883.10.20.27.3.1:2020-12-01)](#E_Measure_Reference_and_Results_V4)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Published |
| Name | Measure Reference and Results (V3) | Measure Reference and Results (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.27.3.1:2016-09-01 | urn:hl7ii:2.16.840.1.113883.10.20.27.3.1:2020-12-01 |
| Description | 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. | This template defines the way that a measure should be referenced. Measures are referenced through an external Act 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. |
| CONF #: 4484-17902 Modified | There is a known data type mismatch issue between the CDA R2 and HQMF for the versionNumber attribute. This guide is based on CDA R2, which is derived from the HL7 Reference Information Model (RIM) Version 2.07. In RIM 2.07, the versionNumber attribute is specified as INT data type. HQMF, however, is derived from HL7 RIM, Version 2.44, where versionNumber is specified as ST data type. If version number in a format such as "9.0.000" was sent in a QRDA Category III file, it will fail the CDA\_SDTC.xsd schema validation.   To avoid this problem, since versionNumber is an optional data element, this guide recommends eCQM version number not be submitted in a QRDA Category III report. Version specific identifier for an eCQM can be used to uniquely identify an eCQM and it is a required data element for QRDA III.  If this reference is to an eCQM this version number SHALL equal the sequential eCQM Version number (CONF:3259-17902). | There is a known data type mismatch issue between the CDA R2 and HQMF for the versionNumber attribute. This guide is based on CDA R2, which is derived from the HL7 Reference Information Model (RIM) Version 2.07. In RIM 2.07, the versionNumber attribute is specified as INT data type. HQMF, however, is derived from HL7 RIM, Version 2.44, where versionNumber is specified as ST data type. If a version number in a format such as "9.0.0" was sent in a QRDA III file, it would fail the CDA\_SDTC.xsd schema validation.   To avoid this problem, since versionNumber is an optional data element (CONF:77-17901), this guide recommends eCQM version number not be submitted in a QRDA Category III report. Version specific identifier for an eCQM can be used to uniquely identify an eCQM and it is a required data element for QRDA III.  If this reference is to an eCQM this version number SHALL equal the sequential eCQM Version number (CONF:4484-17902). |
| CONF #: 4484-18356 Modified | This id <b>SHALL</b> equal the id of the corresponding measure set definition within the eCQM (CONF:3259-18356). | This id SHALL equal the id of the corresponding measure set definition within the eCQM (CONF:4484-18356). |

Performance Rate for Proportion Measure (V3)

[Performance Rate for Proportion Measure (V3) (urn:hl7ii:2.16.840.1.113883.10.20.27.3.14:2020-12-01)](#E_Performance_Rate_for_Proportion_v3)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Published |
| Name | Performance Rate for Proportion Measure (V2) | Performance Rate for Proportion Measure (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.27.3.14:2016-09-01 | urn:hl7ii:2.16.840.1.113883.10.20.27.3.14:2020-12-01 |
| Description | 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 = (Numerator – Numerator Exclusions) / (Denominator – Denominator Exclusions – Denominator Exceptions). The predicted rate (based on the measure's risk-adjustment model) can be captured in the reference range.  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. | 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 = (Numerator – Numerator Exclusions) / (Denominator – Denominator Exclusions – Denominator Exceptions). The predicted rate (based on the measure's risk-adjustment model) can be captured in the reference range.  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. |
| CONF #: 4484-21445 Added |  | SHALL contain exactly one [1..1] value with @xsi:type="REAL" (CONF:4484-21445). |
| CONF #: 4484-21446 Added |  | The value, if present, SHALL be greater than or equal to 0 and less than or equal to 1 (CONF:4484-21446). |
| CONF #: 4484-21447 Added |  | The value, if present, SHALL contain no more than 6 digits to the right of the decimal (CONF:4484-21447). |
| CONF #: 4484-19651 Modified | This is the optional reference to the specific Numerator included in the calculation.  MAY contain zero or one [0..1] reference (CONF:3259-19651). | This is the optional reference to the specific Numerator included in the calculation.  SHALL contain exactly one [1..1] reference (CONF:4484-19651). |
| CONF #: 4484-19653 Modified | The reference, if present, SHALL contain exactly one [1..1] externalObservation (CONF:3259-19653). | This reference SHALL contain exactly one [1..1] externalObservation (CONF:4484-19653). |
| CONF #: 4484-19652 Modified | The reference, if present, SHALL contain exactly one [1..1] @typeCode="REFR" refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3259-19652). | This reference SHALL contain exactly one [1..1] @typeCode="REFR" refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4484-19652). |
| CONF #: 4484-21444 Modified | SHALL contain exactly one [1..1] @extension="2016-09-01" (CONF:3259-21444). | SHALL contain exactly one [1..1] @extension="2020-12-01" (CONF:4484-21444). |

Reporting Parameters Act (V2)

[Reporting Parameters Act (V2) (urn:hl7ii:2.16.840.1.113883.10.20.17.3.8:2020-12-01)](#E_Reporting_Parameters_Act_V2)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Published |
| Name | Reporting Parameters Act | Reporting Parameters Act (V2) |
| Oid | urn:oid:2.16.840.1.113883.10.20.17.3.8 | urn:hl7ii:2.16.840.1.113883.10.20.17.3.8:2020-12-01 |
| CONF #: 4484-26552 Added |  | SHALL contain exactly one [1..1] @extension="2020-12-01" (CONF:4484-26552). |
| CONF #: 4484-26553 Added |  | This low SHALL contain exactly one [1..1] @value (CONF:4484-26553). |
| CONF #: 4484-26554 Added |  | <b>SHALL</b> be precise to day (CONF:4484-26554). |
| CONF #: 4484-26555 Added |  | This high SHALL contain exactly one [1..1] @value (CONF:4484-26555). |
| CONF #: 4484-26556 Added |  | <b>SHALL</b> be precise to day (CONF:4484-26556). |

Improvement Activity Section (V3)

[Improvement Activity Section (V3) (urn:hl7ii:2.16.840.1.113883.10.20.27.2.4:2020-12-01)](#S_Improvement_Activity_Section_V3)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Published |
| Name | Improvement Activity Section (V2) | Improvement Activity Section (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.27.2.4:2017-06-01 | urn:hl7ii:2.16.840.1.113883.10.20.27.2.4:2020-12-01 |
| CONF #: 4484-26558 Added |  | SHALL contain exactly one [1..1] entry (CONF:4484-26558) such that it |
| CONF #: 4484-26559 Added |  | SHALL contain exactly one [1..1] act (CONF:4484-26559). |
| CONF #: 3338-21447 Removed | SHALL contain exactly one [1..1] entry (CONF:3338-21447) such that it |  |
| CONF #: 3338-21448 Removed | SHALL contain exactly one [1..1] act (CONF:3338-21448). |  |
| CONF #: 4484-21398 Modified | SHALL contain exactly one [1..1] @extension="2017-06-01" (CONF:3338-21398). | SHALL contain exactly one [1..1] @extension="2020-12-01" (CONF:4484-21398). |

Promoting Interoperability Measure Section (V3)

[Promoting Interoperability Measure Section (V3) (urn:hl7ii:2.16.840.1.113883.10.20.27.2.5:2020-12-01)](#S_Promoting_Interoperability_Measure_Se)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Published |
| Name | Promoting Interoperability Section (V2) | Promoting Interoperability Measure Section (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.27.2.5:2017-06-01 | urn:hl7ii:2.16.840.1.113883.10.20.27.2.5:2020-12-01 |
| Description | Formerly Advancing Care Information Section. This section references the Promoting Interoperability measures being reported. | This section references the Promoting Interoperability measures being reported. Promoting Interoperability measures promote patient engagement and electronic exchange of information using certified electronic health record technology (CEHRT). A Promoting Interoperability measure maybe a boolean type of measure that indicates the measure is met or not met or a proportion measure that reports numerator and denominator counts. |
| CONF #: 4484-21395 Modified | SHALL contain exactly one [1..1] @extension="2017-06-01" (CONF:3338-21395). | SHALL contain exactly one [1..1] @extension="2020-12-01" (CONF:4484-21395). |
| CONF #: 4484-21439 Modified | This Promoting Interoperability Section SHALL contain at least a Promoting Interoperability Numerator Denominator Type Measure Reference and Results or a Promoting Interoperability Measure Performed Reference and Results (CONF:3338-21439). | This Promoting Interoperability Measure Section SHALL contain at least a Promoting Interoperability Numerator Denominator Type Measure Reference and Results or a Promoting Interoperability Measure Performed Reference and Results (CONF:4484-21439). |

QRDA Category III Measure Section (V5)

[QRDA Category III Measure Section (V5) (urn:hl7ii:2.16.840.1.113883.10.20.27.2.1:2020-12-01)](#S_QRDA_Category_III_Measure_Section_V5)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Published |
| Name | QRDA Category III Measure Section (V4) | QRDA Category III Measure Section (V5) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.27.2.1:2017-06-01 | urn:hl7ii:2.16.840.1.113883.10.20.27.2.1:2020-12-01 |
| CONF #: 4484-21467 Added |  | SHALL contain exactly one [1..1] entry (CONF:4484-21467) such that it |
| CONF #: 4484-21468 Added |  | SHALL contain exactly one [1..1] act (CONF:4484-21468). |
| CONF #: 3338-21445 Removed | SHALL contain exactly one [1..1] entry (CONF:3338-21445) such that it |  |
| CONF #: 3338-21446 Removed | SHALL contain exactly one [1..1] act (CONF:3338-21446). |  |
| CONF #: 4484-21171 Modified | SHALL contain exactly one [1..1] @extension="2017-06-01" (CONF:3338-21171). | SHALL contain exactly one [1..1] @extension="2020-12-01" (CONF:4484-21171). |

# Previous Templates No Longer used in This Guide

Table 65: Previous Templates No Longer Used In this Guide

| Name | OID | Description |
| --- | --- | --- |
| QRDA Category III Reporting Parameters Section | urn:hl7ii:2.16.840.1.113883.10.20.17.2.2 | The QRDA Category III Reporting Parameters Section provides information is removed from this version of the guide.  Each performance category has a required Reporting Parameters Act to provide reporting time interval. |
| Reporting Parameters Section | urn:hl7ii:2.16.840.1.113883.10.20.17.2.1 | This template was the parent template of the QRDA Category III Reporting Parameters Section template. |
| Service Encounter | urn:hl7ii:2.16.840.1.113883.10.20.27.3.11 | This template was referenced by the QRDA Category III Reporting Parameters Section template. |