

# **eMeasure 2017**

## **Testing Guide**



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1100 13th Street, NW, Suite 1000  
Washington, DC 20005  
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## **Introduction**

As a healthcare IT company, you know that identifying and verifying the integrity of electronic clinical data is important for you and your clients. Your participation in NCQA's eMeasure program ensures the highest level of measure logic review for measures that use clinical data. NCQA's eMeasure testing adds a higher degree of reliability to performance measurement and enables health care organizations to provide consumers and purchasers with consistent and comparable information.

NCQA's *eMeasure Testing Guide* contains the policies and procedures for the NCQA eMeasure testing program. Use it as you complete testing. The first step is completing and submitting your application. After NCQA reviews and accepts your application, you receive a License Agreement. After you execute your License Agreement, you may begin the process.



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## Testing

### Measure specifications and value sets

The eCQM specifications for Eligible Professionals, released July 2014, June 2015, and April 2016 will be available for testing.

Annual specification updates can be found on the eCQM Library Web site: [http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/eCQM\\_Library.html](http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/eCQM_Library.html)

The value sets for each measure specification can be found on the Value Set Authority Center (VSAC) Web site: <https://vsac.nlm.nih.gov/>. If you do not have a UMLS license/account, select:

1. Search Value Sets Tab
2. On the VSAC Login window, select the “Request One Now” link to request and obtain access to search the value sets online
3. Once logged in, select the download tab to download the value sets or search for an individual value set on the Search Value Sets tab.

### File layout standards

The CCD layout contains information on the data that NCQA sends to you for processing. *Refer to Appendix C.*

The QRDA Category I and III layouts show how results are returned to NCQA. *Refer to Appendix D.*

You must follow the QRDA layouts for the Online Scoring Program (OSP) to run accurately.

### OSP

Online Scoring Program. A Web-based tool that compares your results with NCQA’s expected results and generates a report showing discrepancies.

### Sample and test rounds

Test decks contain one CCD for each patient. There are typically 800–1,000 patients per test deck.

Sample decks also contain “score keys” or answers/expected QRDA results for that deck’s data files and testing scenarios. One sample deck is available for each measure. We recommend that you work with these sample decks until your results match the score keys before you begin to work on the testing decks. Sample decks may be scored through the OSP.

## APPENDIX A

### Measures in the Scope of eMeasure Testing (Exhibit A)

#### Electronic Clinical Quality Measures

##### Clinical Process/Effectiveness

CMS ID	HEDIS Abbreviation	Measure
CMS2	DSF	Preventive Care and Screening: Screening for Clinical Depression and Follow-Up Plan
CMS74	-	Primary Caries Prevention Intervention as Offered by Primary Care Providers, including Dentists
CMS82	-	Maternal Depression Screening
CMS122	CDC	Diabetes: Hemoglobin A1c Poor Control
CMS123	CDC	Diabetes: Foot Exam
CMS124	CCS	Cervical Cancer Screening
CMS125	BCS	Breast Cancer Screening
CMS126	ASM	Use of Appropriate Medications for Asthma
CMS127	PNU	Pneumonia Vaccination Status for Older Adults
CMS128	AMM	Anti-depressant Medication Management
CMS130	COL	Colorectal Cancer Screening
CMS131	CDC	Diabetes: Eye Exam
CMS134	CDC	Diabetes: Urine Protein Screening
CMS136	ADD	ADHD: Follow-Up Care for Children Prescribed Attention-Deficit/Hyperactivity Disorder (ADHD) Medication
CMS137	IET	Initiation and Engagement of Alcohol and Other Drug Dependence Treatment
CMS159	DRR	Depression Remission at Twelve Months
CMS160	DMS	Depression Utilization of the PHQ-9 Tool
CMS165	CBP	Controlling High Blood Pressure

##### Efficient Use of Healthcare Resources

CMS ID	HEDIS Abbreviation	Measure
CMS146	CWP	Appropriate Testing for Children with Pharyngitis
CMS154	URI	Appropriate Treatment for Children with Upper Respiratory Infection
CMS166	LBP	Use of Imaging Studies for Low Back Pain

**Patient Safety**

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<b>CMS ID</b>	<b>HEDIS Abbreviation</b>	<b>Measure</b>
CMS156	DAE	Use of High-Risk Medications in the Elderly

**Population/Public Health**

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<b>CMS ID</b>	<b>HEDIS Abbreviation</b>	<b>Measure</b>
CMS117	CIS	Childhood Immunization Status
CMS153	CHL	Chlamydia Screening for Women
CMS155	WCC	Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents



## APPENDIX B

### Online Scoring Program

The Online Scoring Program (OSP) compares vendor results against expected NCQA results and generates a report that lists discrepancies. After the test deck results are uploaded, the OSP processes it automatically.

#### Accessing the OSP

Go to <https://cqm.measurecertification.ncqa.org> and enter your NCQA-assigned username and password on the main page.

If you do not remember your password, click **Forgot your password?**

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## Online Scoring Program

Home My Vendors/Products Materials Timeline ➔ Sign in

### Sign In

Sign in with your NCQA account.



Remember me

Sign in Forgot your password?

Enter your e-mail address on the Forgot Password screen. Your password will be sent to that address.

Home My Vendors/Products Materials Timeline ➔ Sign in

Home / Forgot Password

## Forgot Password

Follow these simple steps to retrieve your password.

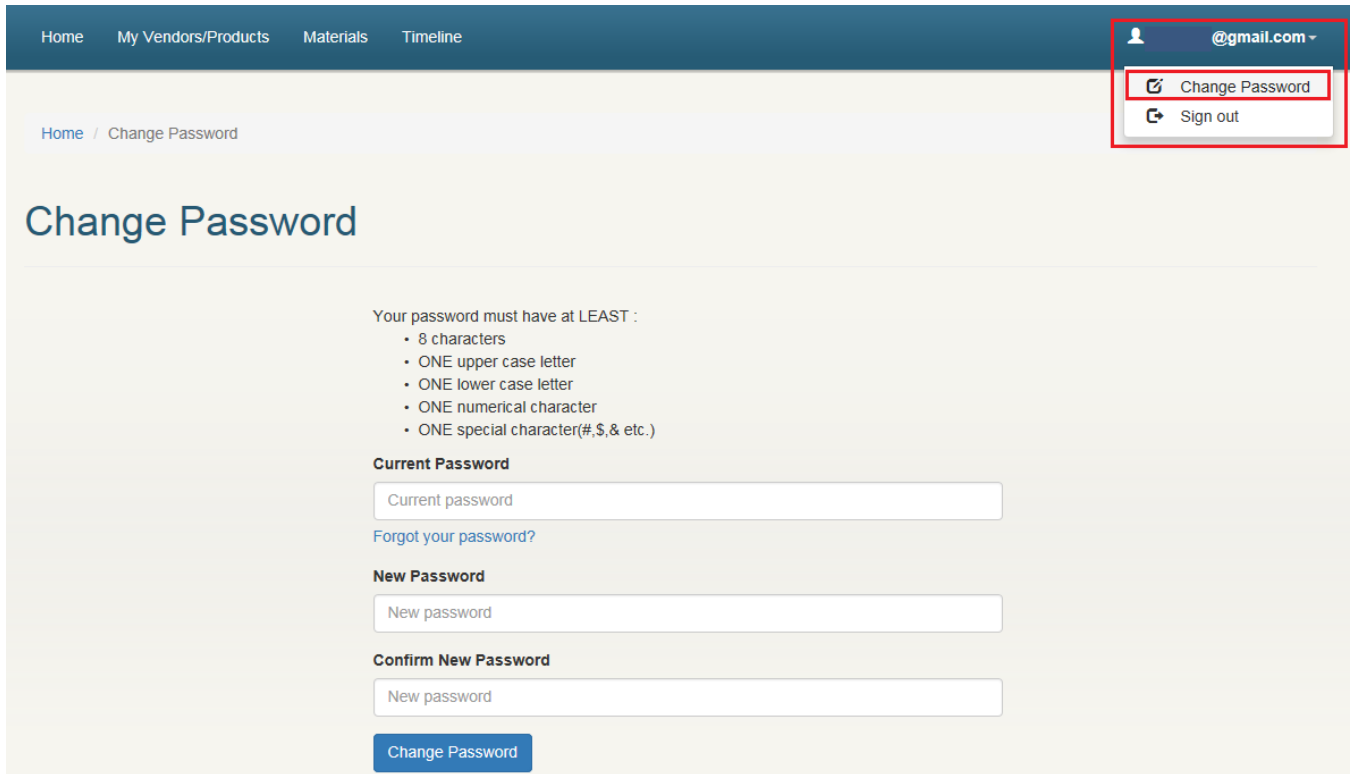
1. **Enter your email address below.**
2. **Click "Send Password".**
3. **Check your email for your account information**  
(the arrival time may take between 1 - 15 minutes.)

Send Password

When you receive your password, select the **Sign in** link and log in using you email and password.

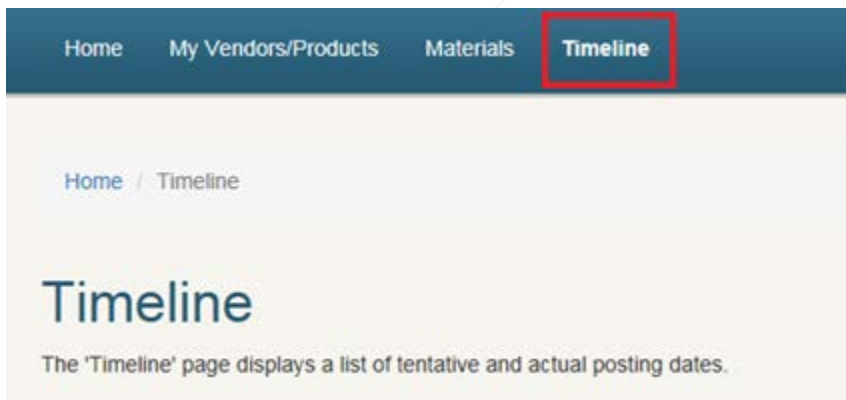
## Change Password

Once you are logged in you can change your password by selecting **Change Password** from the drop-down arrow next to your email address at the top right hand corner.



## Timeline

Select Timeline to see tentative and actual measure posting dates.



## Manage Products

On the Home screen you will be able to manage your product(s). Your company and product(s) will be listed on the Home screen under My Vendors/Products.

From the Manage drop-down (see screen shots below), you can select:

**A. Manage All eCQM Submissions**

- Link will take you to the *Vendor Submission* page, where you can access the test decks and upload your results for scoring.

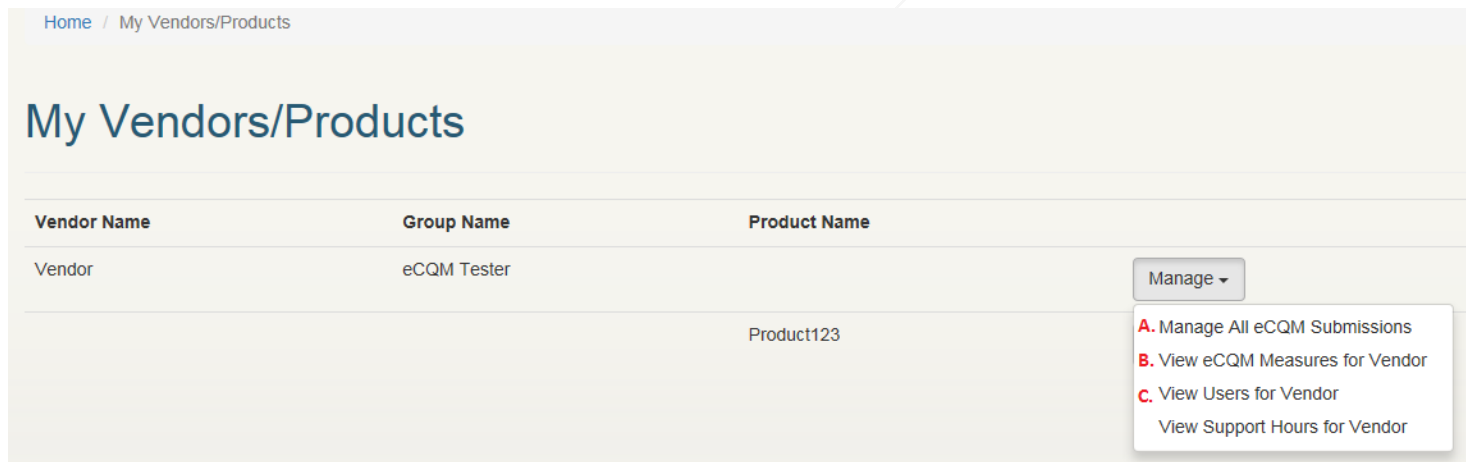
**B. View eCQM Measures for Vendor**

- Link will take you to the *Vendor Measures* page, where you can view a list of all the measures that you have access to test.

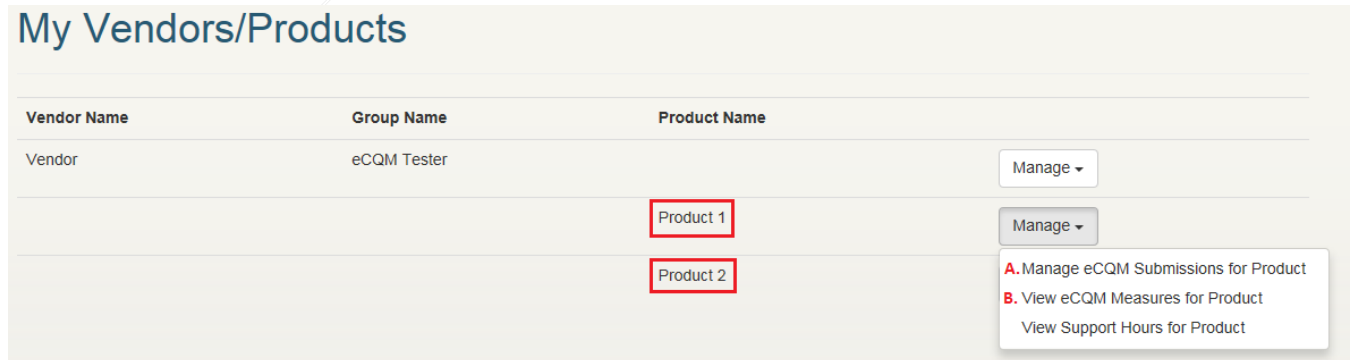
**C. View Users for Vendor**

- Link will take you to the *Vendor Users* page, where you can view a list of all the users that have access to your company’s test decks.

Note: The *View Support Hours for Vendor* link is a feature that will not be used for testing purposes.



If you are testing more than one product, each product will be listed along with a Manage drop-down where you can access the *Vendor Submission* and *Vendor Measure* pages for each product.



## Downloading and Uploading Files

Select either the **Manage All eCQM Submissions** or **Manage eCQM Submissions for Product** link to go to the *Vendor Submission* page where you can download the test decks and upload your results.

Each test deck is a hyperlink. Click the hyperlink. In the pop-up box, click Open or Save to download the file.

### Vendor Submissions for Vendor

The 'Vendor Submissions' page displays a list of your available decks. You can download a deck, then upload/submit a scorekey you generated from the deck. To submit a submission, click on the upload link. After uploading a scorekey, you can view the submission report by clicking on a cell in the Status column.

Season: All | Template: All | Measure: CBP\_CMS165v3 | Measure Type: eCQM  
 Product: Product 1 | Deck Type: All | Version: All

Season	Template	Measure	Measure Type	Vendor	Product	Deck	Type	Version	Count	Status	Submission Time
eCQM_EP_July 2014	XML	CBP_CMS165v3	eCQM	Vendor	Product 1	<a href="#">CMS165v3_CBP_XML_Test Deck_Sample.zip</a>	SAMPLE	A	0		<input type="button" value="Upload"/>
eCQM_EP_July 2014	XML	CBP_CMS165v3	eCQM	Vendor	Product 1	<a href="#">CMS165v3_CBP_XML_Test Deck_Version A.zip</a>	TEST	A	0		<input type="button" value="Upload"/>

Do you want to open or save CMS165v3\_CBP\_XML\_Test Deck\_Sample.zip (2.60 MB) from cqm.measurecertification.ncqa.org?

To upload your results:

1. Select the upload button next to the test deck you are submitting results to score.
2. Browse for the file you want to upload.
3. Select the upload button from the pop-up box to upload your results.

The 'Vendor Submissions' page displays a list of your available decks. You can download a deck, then upload/submit a scorekey you generated from the deck. To submit a submission, click on the upload link. After uploading a scorekey, you can view the submission report by clicking on a cell in the Status column.

Season: All | Product: Product 1 | Measure Type: eCQM

Season	Template	Measure	Measure Type	Vendor	Product	Deck	Type	Version	Count	Status	Submission Time
eCQM_EP_July 2014	XML	CBP_CMS165v3	eCQM	Vendor	Product 1	<a href="#">CMS165v3_CBP_XML_Test Deck_Sample.zip</a>	SAMPLE	A	0		<input type="button" value="Upload"/>
eCQM_EP_July 2014	XML	CBP_CMS165v3	eCQM	Vendor	Product 1	<a href="#">CMS165v3_CBP_XML_Test Deck_Version A.zip</a>	TEST	A	0		<input type="button" value="Upload"/>

**Vendor Score Key Upload**

Please upload a score key for CBP\_CMS165v3 (Type: SAMPLE, Version: A) to be scored

**Vendor Score Key File**

**Sample and Test Decks**

**Sample decks** Sample decks let vendors test the code before running a production deck. Vendors can upload sample results to the OSP as many times as needed to match NCQA results, or can use the sample score key and their own process to compare their results to NCQA’s.

**Test decks** Test decks contain the CCD files for each patient needed to process each measure. Test decks do not contain a score key and results can only be submitted once. A vendor that does not pass the first time must process the next deck.

**Data file layout** Uploaded files must conform to the QRDA report layouts for the measure. *Refer to Appendix G.*

**Status**

**Pass & Date** Testing for a measure is complete.

**Review** Discrepancies were found. You must view the report and apply fixes to your product. The next deck will automatically become available. However, we encourage you to submit a question to NCQA if you have any questions or need clarification, prior to testing the next deck.

**Scoring Report**

To view a report, click the **REVIEW** link that appears after uploading a results file.

Season	Template	Measure	Measure Type	Vendor	Product	Deck	Type	Version	Count	Status	Submission Time
eCQM_EP_July 2014	XML	CBP_CMS165v3	eCQM	Vendor	Product 1	CMS165v3_CBP_XML_Test Deck_Sample.zip	SAMPLE	A	1	<b>REVIEW</b>	2/4/2016 4:17 PM

The report will indicate the type of error and describe the error. You can save the report as a pdf.



**Submission Report**

**Vendor:** Vendor

**Product:** Product 1

**Status:** REVIEW

**Submission Date:** 2/4/2016 4:17 PM

**Season:** eCQM\_EP\_July 2014

**Measure:** CBP\_CMS165v3

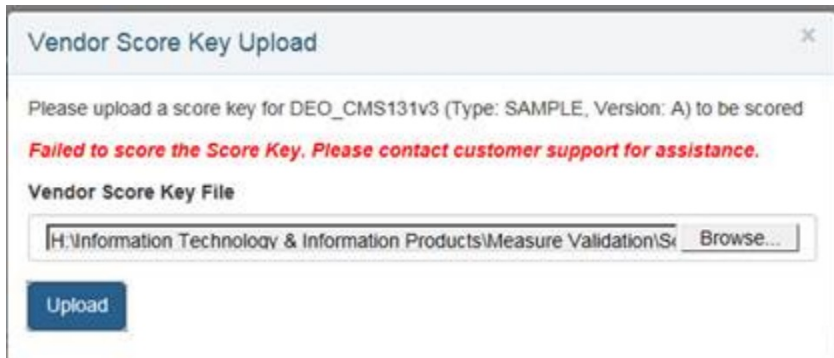
**Type:** SAMPLE

**Version:** A

ID	Field	Line #	Error Message
	ValidationError		Reporting Period Start Time does not match the test data provided
	ValidationError		Reporting Period End Time does not match the test data provided
	ValidationError		Measure Specific Version GUID does not match the test data provided
	ScoringError		Missing population counts for population B936D6B5-151F-47FB-97D8-A5AB9AB00656
	ScoringError		Missing population counts for population 2A53CBF0-510A-429D-814D-CBCA4DC0E2A8
	ScoringError		Missing population counts for population 5EE417A9-32DB-452F-BAA0-74C5831A4457
	ScoringError		Missing population counts for population 57F3D1D7-F9FA-437F-A2B9-406A1498E8C0

**System Error Messages**

A **Contact Customer Support for Assistance** message displays if the results fail to score. If this happens, submit a question to NCQA.



**ERROR** displays if a result is uploaded with an incorrect format or missing information. If this happens, correct the file format and/or add the missing information

Season	Template	Measure	Measure Type	Vendor	Product	Deck	Type	Version	Count	Status	Submission Time
eCQM_EP_July 2014	XML	CBP_CMS165v3	eCQM	Vendor	Product 1	CMS165v3_CBP_XML_Test Deck_Sample.zip	SAMPLE	A	2	ERROR	2/4/2016 4:27 PM

A **SYSERR** message displays if there is an error with the system. Resubmit the submission. If the problem persists, submit a question to NCQA.

## APPENDIX C

### Continuity of Care (CCD) File Layouts

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**CCD**

This specification outlines the key fields included in the CCD file found in each test deck. There is one CCD file for each patient in the test deck. The generated CCD is based on C-CDA R1.1<sup>1</sup> and the document produced conforms with MU2 requirements. Sections without data include a nullFlavor of [No Information \(NI\)](#) at the section level. Refer to [Table 1: Supported CCD Templates](#).

<sup>1</sup>[http://www.hl7.org/documentcenter/private/standards/cda/CDAR2\\_IG\\_IHE\\_CONSOL\\_DSTU\\_R1dot1\\_2012JUL.zip](http://www.hl7.org/documentcenter/private/standards/cda/CDAR2_IG_IHE_CONSOL_DSTU_R1dot1_2012JUL.zip)

Table 1: Supported C-CDA Templates

Template Title	Template Type	Template ID
US Realm Header	header	2.16.840.1.113883.10.20.22.1.1
Continuity of Care Document (CCD)	document	2.16.840.1.113883.10.20.22.1.2
Encounters Section (entries optional)	section	2.16.840.1.113883.10.20.22.2.22
Encounters Section (entries required)	section	2.16.840.1.113883.10.20.22.2.22.1
Encounter Activities	entry	2.16.840.1.113883.10.20.22.4.49
Immunizations Section (entries optional)	section	2.16.840.1.113883.10.20.22.2.2
Immunizations Section (entries required)	section	2.16.840.1.113883.10.20.22.2.2.1
Immunization Activity	entry	2.16.840.1.113883.10.20.22.4.52
Immunization Medication Information	entry	2.16.840.1.113883.10.20.22.4.54
Medications Section (entries optional)	section	2.16.840.1.113883.10.20.22.2.1
Medications Section (entries required)	section	2.16.840.1.113883.10.20.22.2.1.1
Medication Activity	entry	2.16.840.1.113883.10.20.22.4.16
Medication Dispense	entry	2.16.840.1.113883.10.20.22.4.18
Medication Information	entry	2.16.840.1.113883.10.20.22.4.23
Medication Supply Order	entry	2.16.840.1.113883.10.20.22.4.17
Payers Section	section	2.16.840.1.113883.10.20.22.2.18
Coverage Activity	entry	2.16.840.1.113883.10.20.22.4.60
Policy Activity	entry	2.16.840.1.113883.10.20.22.4.61
Problem Section (entries optional)	section	2.16.840.1.113883.10.20.22.2.5
Problem Section (entries required)	section	2.16.840.1.113883.10.20.22.2.5.1
Problem Concern Act (Condition)	entry	2.16.840.1.113883.10.20.22.4.3
Problem Observation	entry	2.16.840.1.113883.10.20.22.4.4
Procedures Section (entries optional)	section	2.16.840.1.113883.10.20.22.2.7
Procedures Section (entries required)	section	2.16.840.1.113883.10.20.22.2.7.1
Procedure Activity Act	entry	2.16.840.1.113883.10.20.22.4.12
Results Section (entries optional)	section	2.16.840.1.113883.10.20.22.2.3
Results Section (entries required)	section	2.16.840.1.113883.10.20.22.2.3.1
Result Observation	entry	2.16.840.1.113883.10.20.22.4.2
Result Organizer	entry	2.16.840.1.113883.10.20.22.4.1
Vital Signs Section (entries optional)	section	2.16.840.1.113883.10.20.22.2.4
Vital Signs Section (entries required)	section	2.16.840.1.113883.10.20.22.2.4.1
Vital Sign Observation	entry	2.16.840.1.113883.10.20.22.4.27
Vital Signs Organizer	entry	2.16.840.1.113883.10.20.22.4.26



**Continuity of Care Document (CCD) Header**

The CDA header contains key metadata about the document to support patient retrieval and storage. This particular document is a Continuity of Care Document.

**Table 2: CCD Header Constraints Overview**

	Card	Fixed/ Dynamic	C-CDA Mapping
	1..1	F	<realmCode code="US"/>
	1..1	F	<typeId root="2.16.840.1.113883.1.3" extension="POCD_HD000040"/>
	1..1	F	<templateId root="2.16.840.1.113883.10.20.22.1.1"/>
	1..1	F	<templateId root="2.16.840.1.113883.10.20.22.1.2"/>
Unique document ID	1..1	D	id
	1..1	F	<code code="34133-9" codeSystem="2.16.840.1.113883.6.1" displayName="Summarization of episode note"/>
Measure Name + Deck Version	1..1	D	title
	1..1	D	effectiveTime/@value
	1..1	F	<confidentialityCode code="N" codeSystem="2.16.840.1.113883.5.25"/>
	1..1	F	languageCode/@code
demographic			recordTarget/patientRole/
ID	1..1	D	ID with NCQA OID 2.16.840.1.113883.3.464.1005.1
Fixed CDA value	1..*	D	addr
Mailing Address 1/ Mailing Address 2	1..4	D	addr/streetAddressLine
City	1..1	D	addr/city
State	0..1	D	addr/state
Zip	0..1	D	addr/postalCode
	0..1	F	<country>US</country>
Telephone Number	1..*	D	telecom
Member First Name	1..*	D	patient/name/family
Member Last Name	1..*	D	patient/name/given
Gender	1..1	D	patient/administrativeGenderCode patient/codeSystem="2.16.840.1.113883.5.1"
Date of Birth	1..1	D	patient/birthTime
Race	1..1	D	patient/raceCode@code patient/raceCode@codeSystem="2.16.840.1.113883.6.238"
Ethnicity	1..1	D	ethnicGroupCode/@code ethnicGroupCode/@codeSystem="2.16.840.1.113883.6.238"
	1..*	F	<languageCommunication> <languageCode code="eng"/> </languageCommunication>
author	1..*	F	/author/
	1..1	F	functionCode - fixed to PCP
	1..1	D	time
	1..1	F	assignedAuthor/id

	Card	Fixed/ Dynamic	C-CDA Mapping
	1..*	F	assignedAuthor/addr
	0..4	F	assignedEntity/addr
	0..1	F	assignedEntity/addr/streetAddressLine
	0..1	F	assignedEntity/addr/city
	0..1	F	assignedEntity/addr/state
	0..1	F	assignedEntity/addr/postalCode
	0..*	F	assignedEntity/addr/country
	1..*	F	assignedAuthor/telecom
	1..1	F	assignedAuthor/assignedPerson/name/given
	1..1	F	assignedAuthor/assignedPerson/name/family
custodian	1..1	F	custodian/assignedCustodian/ representedCustodianOrganization/...
	1..*	F	id
	1..1	F	name
	1..1	F	telecom
	1..*	F	addr
	0..4	F	assignedEntity/addr
	0..1	F	assignedEntity/addr/streetAddressLine
	0..1	F	assignedEntity/addr/city
	0..1	F	assignedEntity/addr/state
	0..1	F	assignedEntity/addr/postalCode
	0..*	F	assignedEntity/addr/country
serviceEvent	0..*	F	<u>documentationOf/serviceEvent/</u>
	0..*	F	serviceEvent@classCode="PCPR"
	0..*	D	effectiveTime/low@value
	0..*	D	effectiveTime/high@value

Figure 1: CCD Header example

```

<ClinicalDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="urn:hl7-org:v3" xmlns:voc="urn:hl7-org:v3/voc">
  <realmCode code="US"/>
  <typeId root="2.16.840.1.113883.1.3" extension="POCD_HD000040"/>
  <!-- US General Header Template -->
  <templateId root="2.16.840.1.113883.10.20.22.1.1"/>

  <!-- *** Note: The next templateId signifies conformance with CCD *** -->
  <templateId root="2.16.840.1.113883.10.20.22.1.2"/>
  <!-- unique id for the document -->
  <id extension="TT988" root="2.16.840.1.113883.19.5.99999.1"/>
  <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
    code="34133-9"
    displayName="Summarization of Episode Note"/>

  <!-- Title of the measure will be added to flat file and placed here as
  title. -->
  <title>NCQA CCD High Risk Medications in the Elderly measure</title>
  <!-- Time the document was created - we will generate -->
  <effectiveTime value="201209150000-0400"/>
  <confidentialityCode code="N" codeSystem="2.16.840.1.113883.5.25"/>
  <languageCode code="en-US"/>
  <recordTarget>
    <patientRole>
      <id root="2.16.840.1.113883.3.464.1005.1" extension="23423"/>
      <!-- Fake ID using NCQA Patient OID. -->
      <addr>
        <streetAddressLine>1357 Amber Drive</streetAddressLine>
        <city>Beaverton</city>
        <state>OR</state>
        <postalCode>97867</postalCode>
        <country>US</country>
        <!-- US is "United States" from ISO 3166-1 -->
      </addr>
      <telecom value="tel:(816)276-6909"/>
      <patient>
        <name>
          <given>Isabella</given>
          <family>Jones</family>
        </name>
        <administrativeGenderCode code="F" codeSystem="2.16.840.1.113883.5.1"
          displayName="Female"/>
        <birthTime value="19750501"/>
        <!-- CDC Race and Ethnicity code set contains the minimum race and
        ethnicity categories defined by OMB Standards for Race and
        Ethnicity -->
        <raceCode code="2106-3" displayName="White"
          codeSystem="2.16.840.1.113883.6.238"
          codeSystemName="Race & Ethnicity - CDC"/>
        <ethnicGroupCode code="2186-5" displayName="Not Hispanic or Latino"
          codeSystem="2.16.840.1.113883.6.238"
          codeSystemName="Race & Ethnicity - CDC"/>
        <birthplace>
          <place>
            <addr>
              <city>Beaverton</city>
              <state>OR</state>
            </addr>
          </place>
        </birthplace>
      </patient>
    </patientRole>
  </recordTarget>

```

```

        <postalCode>97867</postalCode>
        <country>US</country>
    </addr>
</place>
</birthplace>
<languageCommunication>
    <languageCode code="eng" />
</languageCommunication>
</patient>
</patientRole>
</recordTarget>
<author>
    <functionCode code="PCP" codeSystem="2.16.840.1.113883.5.88"
        codeSystemName="Provider Role"
        displayName="Primary Care Provider" />
    <time value="20050329224411+0500" />
    <assignedAuthor>
        <id extension="99999999" root="2.16.840.1.113883.4.6" />
        <code code="200000000X" codeSystem="2.16.840.1.113883.6.101"
            displayName="Allopathic & Osteopathic Physicians" />
        <addr>
            <streetAddressLine>1002 Healthcare Drive </streetAddressLine>
            <city>Portland</city>
            <state>OR</state>
            <postalCode>99123</postalCode>
            <country>US</country>
        </addr>
        <telecom use="WP" value="tel:555-555-1002" />
        <assignedPerson>
            <name>
                <given>Henry</given>
                <family>Seven</family>
            </name>
        </assignedPerson>
    </assignedAuthor>
</author>
<custodian>
    <assignedCustodian>
        <representedCustodianOrganization>
            <!-- NCQA OID -->
            <id root="2.16.840.1.113883.3.464" />
            <name>National Committee for Quality Assurance (NCQA)</name>
            <telecom value="tel: 202-955-3500" use="WP" />
            <addr use="WP">
                <streetAddressLine>1100 13th St., NW Suite 1000</streetAddressLine>
                <city>Washington</city>
                <state>DC</state>
                <postalCode>20005</postalCode>
                <country>US</country>
            </addr>
        </representedCustodianOrganization>
    </assignedCustodian>
</custodian>
<documentationOf>
    <serviceEvent classCode="PCPR">
        <!-- NCQA Time? -->
        <effectiveTime>
            <low value="201209080000-0400" />
            <high value="201209150000-0400" />
        </effectiveTime>
    </serviceEvent>
</documentationOf>

```

```
</effectiveTime>
<performer typeCode="PRF">
  <functionCode code="PCP" codeSystem="2.16.840.1.113883.5.88"
    codeSystemName="Provider Role"
    displayName="Primary Care Provider"/>
  <assignedEntity>
    <!-- Provider NPI "PseudoMD-1" -->
    <id extension="99999999" root="2.16.840.1.113883.4.6"/>
    <code code="200000000X" codeSystem="2.16.840.1.113883.6.101"
      displayName="Allopathic & Osteopathic Physicians"/>
    <addr>
      <streetAddressLine>1002 Healthcare Drive </streetAddressLine>
      <city>Portland</city>
      <state>OR</state>
      <postalCode>99123</postalCode>
      <country>US</country>
    </addr>
    <telecom use="WP" value="tel:555-555-1002"/>
    <assignedPerson>
      <name>
        <given>Henry</given>
        <family>Seven</family>
      </name>
    </assignedPerson>
  </assignedEntity>
</performer>
</serviceEvent>
</documentationOf>
...
```

## Encounters Section

The *Encounters* section lists and describes any health care encounter pertinent to the patient's current health status or health history.

**Table 3: Encounters Section Constraints Overview**

Key Fields	Card	Fixed/ Dynamic	C-CDA Mapping
Section	1..*	F	component/structuredBody/component/section
	1..*	F	<templateId root="2.16.840.1.113883.10.20.22.2.22"/>
	1..*	F	<templateId root="2.16.840.1.113883.10.20.22.2.22.1"/>
	1..1	F	<code code="46240-8" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Encounters"/>
	1..1	F	<title>ENCOUNTERS</title>
Code Text	1..1	D	text
	1..*	F	/entry/
	1..1	F	<encounter classCode="ENC" moodCode="EVN">
	1..*	F	<templateId root="2.16.840.1.113883.10.20.22.4.49"/>
	1..1	D	<id root="18a2b195-7cd2-4cb8-a8ca-93bb1e2baec3"/>
Activity Type	1..1	D	<code code="99241" displayName="Office consultation - 15 minutes" codeSystemName="CPT" codeSystem="2.16.840.1.113883.6.12" codeSystemVersion="4"> [code could be SNOMED or HCPCS]
Service Date and End Date	1..1	D	<effectiveTime> <low value="[Service Date]"/> <high value="[End Date]"/> </effectiveTime>

Figure 2: Encounters section example

```

...
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.22.1" />
  <code code="46240-8" codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC" displayName="History of Encounters" />
  <title>ENCOUNTERS</title>
  <text>Encounters...</text>
  <entry typeCode="DRIV">
    <encounter classCode="ENC" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.49" />
      <id root="2.16.840.1.113883.3.464.1005.1" extension="95005" />
      <code code="108311000" codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="SNOMED-CT"
        displayName="Psychiatricprocedure" />
      <effectiveTime>
        <low value="19821203" />
        <high value="19821203" />
      </effectiveTime>
    </encounter>
  </entry>
  <entry typeCode="DRIV">
    <encounter classCode="ENC" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.49" />
      <id root="2.16.840.1.113883.3.464.1005.1" extension="95005" />
      <code code="99386" codeSystem="2.16.840.1.113883.6.12"
        codeSystemName="CPT" displayName="Unknown Encounter Code" />
      <effectiveTime>
        <low value="20120519" />
        <high value="20120519" />
      </effectiveTime>
    </encounter>
  </entry>
...

```

## Immunizations Section

The *Immunizations* section defines a patient’s current immunization status and pertinent immunization history.

**Table 4: Immunizations Section Constraints Overview**

Key Fields	Card	Fixed/ Dynamic	C-CDA Mapping
Section	1..*		component/structuredBody/component/section
	1..*	F	<templateId root="2.16.840.1.113883.10.20.22.2.2"/>
	1..*	F	<templateId root="2.16.840.1.113883.10.20.22.2.2.1"/>
	1..1	F	<code code="11369-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Immunizations"/>
title@text	1..1	F	<title>Immunizations</title>
Code Text	1..1	D	text
	1..*	F	/entry/
	1..1	F	<substanceAdministration classCode="SBADM" moodCode="EVN" negationInd="false">
	1..*	F	<templateId root="2.16.840.1.113883.10.20.22.4.52"/>
	1..1	D	<id root="cdbc33f0-6cde-11db-9fe1-0800200c9a66"/>
	1..1	F	<statusCode code="completed"/>
Immunization Date	1..1	D	<effectiveTime value=[Immunization Date]/>
	1..1	F	<consumable> <manufacturedProduct classCode="MANU">
	1..*	F	<templateId root="2.16.840.1.113883.10.20.22.4.54"/>
	1..1	F	<manufacturedMaterial>
Immunization Code	1..1	D	<code code=[Drug code]  codeSystem="2.16.840.1.113883.12.292" displayName="anthrax" codeSystemName="CVX">



Figure 3: Immunizations section example

```

...
<section>
  <!-- conforms to Immunizations section with entries optional -->
  <templateId root="2.16.840.1.113883.10.20.22.2.2"/>
  <!-- Immunizations section with entries required -->
  <templateId root="2.16.840.1.113883.10.20.22.2.2.1"/>
  <code code="11369-6" codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        displayName="History of immunizations"/>
  <title>IMMUNIZATIONS</title>
  <text>Vaccine... </text>
  <entry typeCode="DRIV">
    <substanceAdministration classCode="SBADM" moodCode="EVN"
                            negationInd="false">
      <!-- ** Immunization activity ** -->
      <templateId root="2.16.840.1.113883.10.20.22.4.52"/>
      <id root="e6f1ba43-c0ed-4b9b-9f12-f435d8ad8f92"/>
      <statusCode code="completed"/>
      <effectiveTime value="199911"/>
      <consumable>
        <manufacturedProduct classCode="MANU">
          <!-- ** Immunization medication information ** -->
          <templateId root="2.16.840.1.113883.10.20.22.4.54"/>
          <manufacturedMaterial>
            <code code="88" codeSystem="2.16.840.1.113883.12.292"
                  displayName="Influenza virus vaccine"
                  codeSystemName="CVX"/>
          </manufacturedMaterial>
        </manufacturedProduct>
      </consumable>
    </substanceAdministration>
  </entry>
...

```

## Medications Section

The *Medications* section defines a patient’s current medications and pertinent medication history.

**Table 5: Medications Section Constraints Overview**

Key Fields	Card	Fixed/ Dynamic	C-CDA Mapping
Section	1..*		component/structuredBody/component/section
	1..*	F	<templateId root="2.16.840.1.113883.10.20.22.2.1"/>
	1..*	F	<templateId root="2.16.840.1.113883.10.20.22.2.1.1"/>
	1..1	F	<code code="10160-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="History of Medication Use"/>
title@text	1..1	F	<title>MEDICATIONS</title>
Code Text	1..1	D	text
	1..*	F	/entry/
	1..1	F	<substanceAdministration classCode="SBADM" moodCode="EVN">
	1..*	F	<templateId root="2.16.840.1.113883.10.20.22.4.16"/>
	1..1	D	<id root="cdbc33f0-6cde-11db-9fe1-0800200c9a66"/>
	1..1	F	<statusCode code="completed"/>
Start Date/End Date/Frequency	1..1	D	<effectiveTime xsi:type="IVL_TS"> <low nullFlavor=[start date]/> <high nullFlavor=[end date]/> </effectiveTime> <effectiveTime xsi:type="PIVL_TS" institutionSpecified="true" operator="A"> <period value=[24/Frequency] unit="h"/> </effectiveTime>
	1..1	F	<consumable> <manufacturedProduct classCode="MANU">
	1..*	F	<templateId root="2.16.840.1.113883.10.20.22.4.23"/>
	1..1	F	<manufacturedMaterial>
Drug Code	1..1	D	<code code=[Drug code]  codeSystem="2.16.840.1.113883.6.88" displayName="Proventil HFA"  codeSystemName="RxNorm">
Start of Medication Supply Order	1..1	F	<entryRelationship typeCode="REFR"> <supply classCode="SPLY" moodCode="EVN">
	1..*	F	<templateId root="2.16.840.1.113883.10.20.22.4.17"/>
	1..1	F	<id nullFlavor="NI"/>
	1..1	F	<statusCode code="completed"/>

Key Fields	Card	Fixed/ Dynamic	C-CDA Mapping
Order Date	1..1	D	<pre>&lt;effectiveTime xsi:type="IVL_TS"&gt;   &lt;low value=[Order Date]/&gt;   &lt;high nullFlavor="UNK"/&gt; &lt;/effectiveTime&gt;</pre>
	1..1	F	<pre>&lt;product&gt;   &lt;manufacturedProduct classCode="MANU"&gt;</pre>
	1..*	F	<pre>&lt;id nullFlavor="NI"/&gt;</pre>
	1..1	F	<pre>&lt;manufacturedMaterial&gt;</pre>
Drug Code	1..1	D	<pre>&lt;code code=[Drug code]  codeSystem="2.16.840.1.113883.6.88"   displayName="Proventil HFA"   codeSystemName="RxNorm"&gt;</pre>
Start of Medication Dispense	1..1	F	<pre>&lt;entryRelationship typeCode="REFR"&gt;   &lt;supply classCode="SPLY" moodCode="EVN"&gt;</pre>
	1..*	F	<pre>&lt;templateId root="2.16.840.1.113883.10.20.22.4.18"/&gt;</pre>
	1..1	F	<pre>&lt;id nullFlavor="NI"/&gt;</pre>
	1..1	F	<pre>&lt;statusCode code="completed"/&gt;</pre>
Dispense Date	1..1	D	<pre>&lt;effectiveTime value=[dispense date]/&gt;</pre>
	1..1	D	<pre>&lt;product&gt;   &lt;manufacturedProduct classCode="MANU"&gt;</pre>
	1..*	F	<pre>&lt;templateId root="2.16.840.1.113883.10.20.22.4.23"/&gt;</pre>
	1..1	F	<pre>&lt;manufacturedMaterial&gt;</pre>
Drug Code	1..1	D	<pre>&lt;code code=[Drug code]  codeSystem="2.16.840.1.113883.6.88"   displayName="Proventil HFA"   codeSystemName="RxNorm"&gt;</pre>

Figure 4: Medications section example

```

...
<section>
  <!-- conforms to Medications section with entries optional -->
  <templateId root="2.16.840.1.113883.10.20.22.2.1"/>
  <!-- Medications section with entries required -->
  <templateId root="2.16.840.1.113883.10.20.22.2.1.1"/>
  <code code="10160-0" codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="HISTORY OF MEDICATION USE"/>
  <title>MEDICATIONS</title>
  <text>Medication...</text>
  <entry typeCode="DRIV">
    <substanceAdministration classCode="SBADM" moodCode="EVN">
      <!-- ** Medication activity ** -->
      <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
      <id root="cdbc33f0-6cde-11db-9fel-0800200c9a66"/>
      <statusCode code="completed"/>
      <effectiveTime xsi:type="IVL_TS">
        <low value="20070103"/>
        <high value="20120515"/>
      </effectiveTime>
      <effectiveTime xsi:type="PIVL_TS" institutionSpecified="true"
        operator="A">
        <period value="24" unit="h"/>
      </effectiveTime>
      <consumable>
        <manufacturedProduct classCode="MANU">
          <!-- ** Medication information ** -->
          <templateId root="2.16.840.1.113883.10.20.22.4.23"/>
          <manufacturedMaterial>
            <code code="1168631"
              codeSystem="2.16.840.1.113883.6.88"
              displayName="Bayer Aspirin Pill"/>
          </manufacturedMaterial>
        </manufacturedProduct>
      </consumable>
      <!-- Intent to supply patient with Medication. -->
      <entryRelationship typeCode="REFR">
        <supply classCode="SPLY" moodCode="INT">
          <!-- ** Medication supply order ** -->
          <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
          <id nullFlavor="NI"/>
          <statusCode code="completed"/>
          <effectiveTime xsi:type="IVL_TS">
            <low value="20070103"/>
            <high nullFlavor="UNK"/>
          </effectiveTime>
          <product>
            <manufacturedProduct classCode="MANU">
              <!-- ** Medication information ** -->
              <templateId
                root="2.16.840.1.113883.10.20.22.4.23"/>
              <id nullFlavor="NI"/>
              <manufacturedMaterial>
                <code code="573621"
                  codeSystem="2.16.840.1.113883.6.88"
                  displayName="Proventil 0.09
                    MG/ACTUAT inhalant solution"

```

```

        codeSystemName="RxNorm" />
      </manufacturedMaterial>
    </manufacturedProduct>
  </product>
</supply>
</entryRelationship>
<!-- Recording dispense of Medication. -->
<entryRelationship typeCode="REFR">
  <supply classCode="SPLY" moodCode="EVN">
    <!-- ** Medication dispense ** -->
    <templateId root="2.16.840.1.113883.10.20.22.4.18" />
    <id nullFlavor="NI" />
    <statusCode code="completed" />
    <effectiveTime value="20070103" />
    <product>
      <manufacturedProduct classCode="MANU">
        <!-- ** Medication information ** -->
        <templateId
          root="2.16.840.1.113883.10.20.22.4.23" />
        <id root="2a620155-9d11-439e-92b3-5d9815ff4ee8" />
        <manufacturedMaterial>
          <code code="573621"
            codeSystem="2.16.840.1.113883.6.88"
            displayName="Proventil 0.09
              MG/ACTUAT inhalant solution"
            codeSystemName="RxNorm" />
        </manufacturedMaterial>
      </manufacturedProduct>
    </product>
  </supply>
</entryRelationship>
</substanceAdministration>
</entry>
...

```

**Payers Section**

The *Payers* section describes the relevant payer at the time the document is generated.

**Table 6: Payers Section Constraints Overview**

Key Fields	Card	Fixed/ Dynamic	C-CDA Mapping
Section	1..*	F	component/structuredBody/component/section
	1..*	F	<templateId root="2.16.840.1.113883.10.20.22.2.18"/>
	1..1	F	<code code="48768-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="PAYERS"/>
	1..1	F	<title>PAYERS</title>
Code Text	1..1	D	text
	1..1	F	/entry/
	1..*	F	<act classCode="ACT" moodCode="EVN">
	1..1	F	<templateId root="2.16.840.1.113883.10.20.22.4.60"/>
	1..*	D	<id root='generated id'/>
	1..1	F	<code code="48768-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Payment sources"/>
	1..1	F	<statusCode code="completed"/>
	1..1	F	<entryRelationship typeCode="COMP">
	1..1	F	<act classCode="ACT" moodCode="EVN">
	1..1	F	<templateId root="2.16.840.1.113883.10.20.22.4.61"/>
	1..1	F	<id root="ab1791b0-5c71-11db-b0de-0800200c9a66"/>
Payer	1..1	D	<code code="1" codeSystemName="Source of Payment Typology" codeSystem="2.16.840.1.113883.3.221.5" displayName="MEDICARE"/>
	1..1	F	<performer typeCode="PRF"> <templateId root="2.16.840.1.113883.10.20.22.4.87"/> <assignedEntity> <id nullFlavor="NA"/> </assignedEntity> </performer> <participant typeCode="COV"> <!-- Covered Party Participant --> <templateId root="2.16.840.1.113883.10.20.22.4.89"/> <participantRole classCode="PAT"> <!-- Health plan ID for patient. --> <id nullFlavor="NI"/> <code code="SELF" codeSystem="2.16.840.1.113883.5.111" displayName="Self"/> </participantRole> </participant> <entryRelationship typeCode="REFR"> <act classCode="ACT" moodCode="EVN"> <!-- ** Authorization activity ** -->

Key Fields	Card	Fixed/ Dynamic	C-CDA Mapping
			<pre>&lt;templateId root="2.16.840.1.113883.10.20.1.19"/&gt; &lt;id nullFlavor="NI"/&gt; &lt;code nullFlavor="NA"/&gt; &lt;entryRelationship typeCode="SUBJ"&gt; &lt;procedure classCode="PROC" moodCode="PRMS"&gt; &lt;code nullFlavor="NI"/&gt; &lt;/procedure&gt;</pre>

Figure 5: Payers section example

```

...
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.18" />
  <code code="48768-6" codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC" displayName="Payer"/>
  <title>INSURANCE PROVIDERS</title>
  <text>Insurance Provide...</text>
  <entry typeCode="DRIV">
    <act classCode="ACT" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.60" />
      <id root="57df6978-5af2-4371-adad-ac9f08163fcd" />
      <code code="48768-6" codeSystem="2.16.840.1.113883.6.1"
            codeSystemName="LOINC" displayName="Payer" />
      <statusCode code="completed" />
      <entryRelationship typeCode="COMP">
        <act classCode="ACT" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.22.4.61" />
          <id root="46076ef7-5119-4074-9a5d-93e97cd366fa" />
          <code code="3212"
                codeSystem="2.16.840.1.114222.4.11.3591"
                codeSystemName="Source of Payment Typology"
                displayName="Indirect Care--
                Care provided outside VA facilities" />
          <statusCode code="completed" />
          <performer typeCode="PRF">
            <templateId root="2.16.840.1.113883.10.20.22.4.87" />
            <assignedEntity>
              <id nullFlavor="NA" />
            </assignedEntity>
          </performer>
          <participant typeCode="COV">
            <templateId root="2.16.840.1.113883.10.20.22.4.89" />
            <participantRole classCode="PAT">
              <id nullFlavor="NI" />
              <code code="SELF"
                    codeSystem="2.16.840.1.113883.5.111"

```

```
        codeSystemName="RoleCode"
        displayName="Self" />
    </participantRole>
</participant>
<entryRelationship typeCode="REFR">
    <act classCode="ACT" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.1.19" />
        <id nullFlavor="NI" />
        <code nullFlavor="NA" />
        <entryRelationship typeCode="SUBJ">
            <procedure classCode="PROC" moodCode="PRMS">
                <code nullFlavor="NI" />
            </procedure>
        </entryRelationship>
    </act>
</entryRelationship>
</act>
</entryRelationship>
</act>
</entry>
...
```



**Problems Section**

The *Problems* section lists and describes all relevant clinical problems at the time the document is generated.

**Table 7: Problems Section Constraints Overview**

Key Fields	Card	Fixed/ Dynamic	C-CDA Mapping
Section	1..*	F	component/structuredBody/component/section
	1..*	F	<templateId root="2.16.840.1.113883.10.20.22.2.5"/>
	1..*	F	<templateId root="2.16.840.1.113883.10.20.22.2.5.1"/>
	1..1	F	<code code="11450-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="PROBLEM LIST"/>
	1..1	F	<title>PROBLEMS - DIAGNOSES</title>
Code Text	1..1	D	text
	1..*	F	/entry/
	1..1	F	<act classCode="ACT" moodCode="EVN">
	1..*	F	<templateId root="2.16.840.1.113883.10.20.22.4.3"/>
	1..1	F	<id nullFlavor="NI"/>
	1..1	F	<code code="CONC" codeSystem="2.16.840.1.113883.5.6" displayName="Concern"/>
Active or completed problem	1..1	D	<statusCode code="<active OR completed"/>
Start Date	1..1	F	<effectiveTime> <low value="YYYYMMDD"/> <high value="YYYYMMDD"/> </effectiveTime>
	1..1	F	<entryRelationship typeCode="SUBJ">
	1..1	F	<observation classCode="OBS" moodCode="EVN">
	1..*	F	<templateId root="2.16.840.1.113883.10.20.22.4.4"/>
	1..1	D	<id root="ab1791b0-5c71-11db-b0de-0800200c9a66"/>
	1..1	F	<code code="55607006" codeSystem="2.16.840.1.113883.6.96" displayName="Problem"/>
	1..1	F	<statusCode code="completed"/>
Start Date and End Date	1..1	D	<effectiveTime> <low value="YYYYMMDD"/> <high value="YYYYMMDD"/> </effectiveTime>
Problem Code	1..1	D	Common case: <value xsi:type="CD" code="233604007" codeSystem="2.16.840.1.113883.6.96" displayName="Pneumonia"/> Exceptional Case: <value xsi:type="CD" nullFlavor="OTH" codeSystemName="SNOMED" codeSystem="2.16.840.1.113883.6.96">
Additional Problem code	1..*	D	<translation code="786.5" codeSystem="2.16.840.1.113883.6.104" displayName="Chest Pain"/>

Figure 6: Problems section example

```

...
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.5.1" />
  <code code="11450-4" codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC" displayName="PROBLEM LIST" />
  <title>PROBLEMS - DIAGNOSES</title>
  <text>Problems...</text>
  <entry typeCode="DRIV">
    <act classCode="ACT" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.3" />
      <id nullFlavor="NI" />
      <code code="CONC" codeSystem="2.16.840.1.113883.5.6"
        codeSystemName="HL7ActClass" displayName="Concern" />
      <statusCode code="active" />
      <effectiveTime xsi:type="IVL_TS">
        <low value="20120630" />
      </effectiveTime>
      <entryRelationship typeCode="SUBJ">
        <observation classCode="OBS" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.22.4.4" />
          <id root="2.16.840.1.113883.3.464.1005.1"
            extension="95005" />
          <code code="55607006" codeSystem="2.16.840.1.113883.6.96"
            codeSystemName="SNOMED-CT" displayName="Problem" />
          <statusCode code="completed" />
          <effectiveTime xsi:type="IVL_TS">
            <low value="20120630" />
          </effectiveTime>
          <value xsi:type="CD" nullFlavor="OTH"
            codeSystem="2.16.840.1.113883.6.96"
            codeSystemName="SNOMED-CT">
            <translation code="401.9"
              codeSystem="2.16.840.1.113883.6.103"

```

```

                                codeSystemName="ICD-9-CM"
                                displayName="EssentialhypertensionUnspecified"/>
                            </value>
                        </observation>
                    </entryRelationship>
                </act>
            </entry>
        <entry typeCode="DRIV">
            <act classCode="ACT" moodCode="EVN">
                <templateId root="2.16.840.1.113883.10.20.22.4.3"/>
                <id nullFlavor="NI"/>
                <code code="CONC" codeSystem="2.16.840.1.113883.5.6"
                    codeSystemName="HL7ActClass" displayName="Concern"/>
                <statusCode code="active"/>
                <effectiveTime xsi:type="IVL_TS"><low value="20120622"/>
                </effectiveTime>
                <entryRelationship typeCode="SUBJ">
                    <observation classCode="OBS" moodCode="EVN">
                        <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
                        <id root="2.16.840.1.113883.3.464.1005.1"
                            extension="95005"/>
                        <code code="55607006" codeSystem="2.16.840.1.113883.6.96"
                            codeSystemName="SNOMED-CT" displayName="Problem"/>
                        <statusCode code="completed"/>
                        <effectiveTime xsi:type="IVL_TS">
                            <low value="20120622"/>
                        </effectiveTime>
                        <value xsi:type="CD" code="433146000"
                            codeSystem="2.16.840.1.113883.6.96"
                            codeSystemName="SNOMED-CT"
                            displayName="Chronickidneydiseasestage5disorder"/>
                    </observation>
                </entryRelationship>
            </act>
        </entry>
        ...

```

## Procedures Section

The *Procedures* section defines all interventional, surgical, diagnostic and or therapeutic procedures or treatments pertinent to the patient’s history at the time the document is generated.

**Table 8: Procedures Section Constraints Overview**

Key Fields	Card	Fixed/ Dynamic	C-CDA Mapping
Section	1..*	F	component/structuredBody/component/section
	1..*	F	<templateId root="2.16.840.1.113883.10.20.22.2.7"/>
	1..*	F	<templateId root="2.16.840.1.113883.10.20.22.2.7.1"/>
	1..1	F	<code code="47519-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="History of Procedures"/>
	1..1	F	<title>PROCEDURES</title>
Code Text	1..1	D	text
	1..*	F	/entry/
Planned (INT) or completed Procedure (EVN)	1..1	D	<procedure classCode="PROC" moodCode="[INT or EVN]">
	1..*	F	<templateId root="2.16.840.1.113883.10.20.22.4.14"/>
	1..1	D	<id root="[Unique ID]"/>
Procedure Code	1..1	D	<code code="80146002" displayName="Appendectomy" codeSystemName="SNOMED CT" codeSystem="2.16.840.1.113883.6.96"> [code could be CPT or HCPCS]
Procedure Statuses	1..1	F	<statusCode code="[active or completed]"/>
Procedure start and end date	1..1	D	<effectiveTime> <low value="[Service Date]"/> <high value="[End Date]"/> </effectiveTime>

Figure 7: Procedures section example

```

...
<section>
  <!-- conforms to Procedures section with entries optional -->
  <templateId root="2.16.840.1.113883.10.20.22.2.7"/>
  <!-- Procedures section with entries required -->
  <templateId root="2.16.840.1.113883.10.20.22.2.7.1"/>
  <code code="47519-4" codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        displayName="HISTORY OF PROCEDURES"/>
  <title>PROCEDURES</title>
  <text>Procedure...</text>
  <entry typeCode="DRIV">
    <procedure classCode="PROC" moodCode="EVN">
      <!-- ** Procedure activity procedure ** -->
      <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
      <id root="d68b7e32-7810-4f5b-9cc2-acd54b0fd85d"/>
      <code code="73761001" codeSystem="2.16.840.1.113883.6.96"
            codeSystemName="SNOMED CT"
            displayName="Colonoscopy"/>
      <statusCode code="completed"/>
      <effectiveTime>
        <low value="201405010800"/>
        <high value="201405010900"/>
      </effectiveTime>
    </procedure>
  </entry>
...

```

## Results Section

The *Results* section contains the results of observations generated by laboratories and imaging and other procedures.

**Table 9: Results Section Constraints Overview**

Key Fields	Card	Fixed/ Dynamic	C-CDA Mapping
Section	1..*		component/structuredBody/component/section
	1..*	F	<templateId root="2.16.840.1.113883.10.20.22.2.3"/>
	1..*	F	<templateId root="2.16.840.1.113883.10.20.22.2.3.1"/>
	1..1	F	<code code="30954-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Relevant diagnostic tests and/or laboratory data" />
title@text	1..1	F	<title>RESULTS</title>
Code Text	1..1	D	Text
lab	1..*	F	/entry/
	1..1	F	<organizer classCode="CLUSTER" moodCode="EVN">
	1..*	F	<templateId root="2.16.840.1.113883.10.20.22.4.1"/>
	1..*	F/D	<id nullFlavor="UNK"/>
	1..1	F/D	<code nullFlavor="UNK"/>
	1..1	F/D	<statusCode code="completed"/>
	1..*	F	<component>
	1..1	F	<observation classCode="OBS" moodCode="EVN">
	1..1	F	<templateId root="2.16.840.1.113883.10.20.22.4.2"/>
	1..*	D	<id root="cdbd33f0-6cde-11db-9fe1-0800200c9a66"/>
Test	1..1	D	<code code="30313-1" displayName="Hgb BldA-mCnc" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/> [code could be from CPT]
Status	1..1	F	<statusCode code="completed"/>
Observation Date End Date	1..1	D	<effectiveTime> <low value="[Observation Date]"/> <high value="[End Date]"/> </effectiveTime>
value and units	1..1	D	<value xsi:type="PQ" value="[value]" unit="[units]" />

Figure 8: Results section example

```

...
<section>
  <!-- conforms to Results section with entries optional -->
  <templateId root="2.16.840.1.113883.10.20.22.2.3"/>
  <!-- Results section with entries required -->
  <templateId root="2.16.840.1.113883.10.20.22.2.3.1"/>
  <code code="30954-2" codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="RESULTS"/>
  <title>RESULTS</title>
  <text>Results...</text>
  <entry typeCode="DRIV">
    <organizer classCode="BATTERY" moodCode="EVN">
      <!-- ** Result organizer ** -->
      <templateId root="2.16.840.1.113883.10.20.22.4.1"/>
      <id nullFlavor="UNK"/>
      <code nullFlavor="UNK"/>
      <statusCode code="completed"/>
      <component>
        <observation classCode="OBS" moodCode="EVN">
          <!-- ** Result observation ** -->
          <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
          <id root="107c2dc0-67a5-11db-bd13-0800200c9a66"/>
          <code code="30313-1" displayName="HGB"
            codeSystem="2.16.840.1.113883.6.1"
            codeSystemName="LOINC"/>
          <statusCode code="completed"/>
          <effectiveTime>
            <low value="20140601800"/>
            <high value="20140601810"/>
          </effectiveTime>
          <value xsi:type="PQ" value="13.2" unit="g/dl"/>
        </observation>
      </component>
    </organizer>
  </entry>
...

```

## Vital Signs Section

The Vital Signs section lists and describes any healthcare encounters pertinent to the patient's current health status or health history.

**Table 10: Vitals Signs Section Constraints Overview**

Key Fields	Card	Fixed/ Dynamic	C-CDA Mapping
Section	1..*		component/structuredBody/component/section
	1..*	F	<templateId root="2.16.840.1.113883.10.20.22.2.4"/>
	1..*	F	<templateId root="2.16.840.1.113883.10.20.22.2.4.1"/>
	1..1	F	<code code="8716-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Vital Signs"/>
title@text	1..1	F	<title>Vital Signs</title>
Code Text	1..1	D	text
lab	1..*	F	/entry/
	1..1	F	<organizer classCode="CLUSTER" moodCode="EVN">
	1..*	F	<templateId root="2.16.840.1.113883.10.20.22.4.26"/>
	1..*	F	<id nullFlavor="UNK"/>
	1..1	F	<code code="46680005" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED-CT" displayName="Vital signs" />
	1..1	F	<statusCode code="completed"/>
	1..*	F	<component>
	1..1	F	<observation classCode="OBS" moodCode="EVN">
	1..1	F	<templateId root="2.16.840.1.113883.10.20.22.4.27"/>
	1..*	D	<id root="cdbc33f0-6cde-11db-9fe1-0800200c9a66"/>
Test	1..1	D	<code code="8302-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Height" /> [code could be from CPT]
Status	1..1	F	<statusCode code="completed"/>
Observation Date	1..1	D	<effectiveTime value=[Observation Date]/>
<a href="#">value and units</a>	1..1	D	<value xsi:type="PQ" value="[value]" unit="[units]" />



Figure 9: Vital Signs section example

```

...
<section>
  <!-- conforms to Vital Signs section with entries optional -->
  <templateId root="2.16.840.1.113883.10.20.22.2.4"/>
  <!-- Vital Signs section with entries required -->
  <templateId root="2.16.840.1.113883.10.20.22.2.4.1"/>
  <code code="8716-3" codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="VITAL SIGNS"/>
  <title>VITAL SIGNS</title>
  <text>Vital Sign...</text>
  <entry typeCode="DRIV">
    <organizer classCode="CLUSTER" moodCode="EVN">
      <!-- ** Vital signs organizer ** -->
      <templateId root="2.16.840.1.113883.10.20.22.4.26"/>
      <id nullFlavor='UNK' />
      <code code="46680005" codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="SNOMED-CT"
        displayName="Vital signs"/>
      <statusCode code="completed"/>
      <effectiveTime value="19991114"/>
      <component>
        <observation classCode="OBS" moodCode="EVN">
          <!-- ** Vital sign observation ** -->
          <templateId root="2.16.840.1.113883.10.20.22.4.27"/>
          <id root="c6f88321-67ad-11db-bd13-0800200c9a66"/>
          <code code="8302-2" codeSystem="2.16.840.1.113883.6.1"
            codeSystemName="LOINC"
            displayName="Height"/>
          <statusCode code="completed"/>
          <effectiveTime value="19991114"/>
          <value xsi:type="PQ" value="177" unit="cm"/>
        </observation>
      </component>
    </organizer>
  </entry>
...

```

## No Information

---

The CCD will include a nullFlavor of No Information ('NI') at the section level when no information is pertinent for a section.

Any section not relevant to the measure being tested will include this nullFlavor. The HL7 SDWG approved this approach after publication of C-CDA R1.1; the MU2 SITE validator (<http://sitenv.org/>) supports this change.

### Figure 10: No Information section example

```
...
<section nullFlavor="NI">
  <templateId root="2.16.840.1.113883.10.20.22.2.6.1"/>
  <code code="48765-2" codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC" displayName="Allergies"/>
  <title>ALLERGIES, ADVERSE EVENTS and ALERTS</title>
  <text>No Allergies Information</text>
</section>
...
```

# APPENDIX D

## Quality Reporting Document Architecture (QRDA) Category I & III Report Layouts

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**QRDA Category I**

This specification outlines the key fields to include in your QRDA Category I report for scoring. One QRDA Category I report should be submitted for each patient who meets the Initial Patient Population criteria for each eCQM.

**Table 1: Supported QRDA Category I Report Layout Templates**

Template Title	Template Type	Template ID
QRDA Category I Report	document	2.16.840.1.113883.10.20.22.1.1
Measure Section	section	2.16.840.1.113883.10.20.24.2.2
Measure Reference	entry	2.16.840.1.113883.10.20.24.3.98
Reporting Parameters	section	2.16.840.1.113883.10.20.17.2.1
Reporting Parameters Act	entry	2.16.840.1.113883.10.20.17.3.8
Patient Data Section	section	2.16.840.1.113883.10.20.24.2.1
<i>*QDM-based QRDA Entries</i>	<i>entry</i>	<i>*Template based on criteria for reported measure.</i>

**QRDA Category I Document Header**

The QRDA Category I header contains information on the report attributes (e.g. date/time, clinical document type) and common administrative and demographic information for the patient.

**Table 2: QRDA Category I Header Constraints Overview**

Key Fields	Card	Fixed/ Dynamic	Fixed Value/Format
ClinicalDocument	1..*	F	<?xml version="1.0"?> <ClinicalDocument xmlns:sdtc="urn:hl7-org:sdtc" xmlns:cda="urn:hl7-org:v3" xmlns="urn:hl7-org:v3" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
	1..1	F	<realmCode code="US"/>
	1..1	F	<typeId extension="POCD_HD000040" root="2.16.840.1.113883.1.3"/>
	1..1	F	<templateId root="2.16.840.1.113883.10.20.22.1.1" extension="2014-06-09"/> <templateId root="2.16.840.1.113883.10.20.24.1.1" extension="2014-12-01"/> <templateId root="2.16.840.1.113883.10.20.24.1.2" extension="2014-12-01"/> <templateId root="2.16.840.1.113883.10.20.24.1.3" extension="2015-07-01"/>
Unique document ID	1..1	D	<id root=" <b>[System Generated]</b> " extension=" <b>[Patient ID]</b> "/>

**Note:** Bolded values in the table indicate that the item should be updated by the vendor.

Key Fields	Card	Fixed/ Dynamic	Fixed Value/Format
	1..1	F	<code code="55182-0" displayName="Quality Measure Report" codeSystemName="LOINC" codeSystem="2.16.840.1.113883.6.1"/>
Measure Title CMS ID + Release Version #	1..1	D	<title>NCQA QRDA Category I Test Data for Quality Measure: <b>[Measure Title] [CMSID] [Version Number]</b> </title>
Document Created Date	1..1	D	<effectiveTime value="YYYYMMDD"/>
	1..1	F	<confidentialityCode code="N" codeSystem="2.16.840.1.113883.5.25"/>
	1..1	F	<languageCode code="en-US"/>
recordTarget	1..1	F	<recordTarget>
Patient ID	1..1	D	<patientRole> <id root=" <b>[System Generated]</b> " extension=" <b>[Patient ID]</b> ">
Patient Address	1..1	D	<addr> <streetAddressLine> <b>Patient Street Address</b> </streetAddressLine> <city> <b>Patient City</b> </city> <state> <b>Patient State</b> </state> <postalCode> <b>Patient Zip</b> </postalCode> <country> <b>US</b> </country> </addr>
Patient Telephone	1..1	D	<telecom value="tel:(###)###-####" use="HP"/>
Patient Name	1..1	D	<patient> <name> <given> <b>Patient First Name</b> </given> <family> <b>Patient Last Name</b> </family> </name>
Patient Gender	1..1	D	<administrativeGenderCode code=" <b>F</b> " codeSystem="2.16.840.1.113883.5.1"/>
Patient DOB	1..1	D	<birthTime value="YYYYMMDD"/>
Patient Race	1..1	D	<raceCode code=" <b>2028-9</b> " codeSystem="2.16.840.1.113883.6.238"/>
Patient Ethnicity	1..1	D	<ethnicGroupCode code=" <b>2186-5</b> " codeSystem="2.16.840.1.113883.6.238"/>
	1..1	D	<languageCommunication> <languageCode code=" <b>eng</b> "> </languageCommunication>

**Note:** Bolded values in the table indicate that the item should be updated by the vendor.

Key Fields	Card	Fixed/ Dynamic	Fixed Value/Format
author	1..*	F	<author>
	1..1	D	<functionCode code="PCP" displayName="Primary Care Provider" codeSystemName="Provider Role" codeSystem="2.16.840.1.113883.5.88"/>
	1..1	D	<time value="YYYYMMDDHHMMSS"/>
Assigned Author	1..1	F	<assignedAuthor>
Assigned Author National Provider Identification (NPI) number	1..1	D	<!--A VALID NPI FOR THE AUTHOR WHO CREATED THE DOCUMENT IS REQUIRED FOR REPORTING --> <id extension="NPI" root="2.16.840.1.113883.4.6"/>
Assigned Author Taxonomy	1..1	D	<code code="Provider Taxonomy Code" displayName="Provider Specialty" codeSystem="2.16.840.1.113883.6.101"/>
Assigned Author Address	1..1	D	<addr use="WP"> <streetAddressLine>Provider Street Address </streetAddressLine> <city> Provider City</city> <state> Provider State</state> <postalCode>Provider Zip</postalCode> <country>US</country> </addr>
Assigned Author Telephone	1..1	D	<telecom value="tel:(###)###-####" use="WP"/>
Assigned Author Name	1..1	D	<assignedPerson> <name> <given>Provider First Name</given> <family>Provider Last Name </family> </name> </assignedPerson>

**Notes:** Bolded values in the table indicate that the item should be updated by the vendor.  
 NPIs used in NCQA's test decks are not valid numbers and are strictly for testing purposes.

Key Fields	Card	Fixed/ Dynamic	Fixed Value/Format
custodian	1..*	F	<custodian>
	1..1	F	<assignedCustodian>
Custodian OID	1..1	D	<representedCustodianOrganization> <!--OID FOR ORGANIZATION IN CHARGE OF MAINTAINING THE DOCUMENT --> <id root="2.16.840.1.113883.3.464"/>
Custodian Name	1..1	D	<name> <b>National Committee for Quality Assurance (NCQA)</b> </name>
Custodian Telephone	1..1	D	<telecom value="tel: <b>202-955-3500</b> " use="WP"/>
Custodian Address	1..1	D	<addr use="WP"> <streetAddressLine> <b>1100 13th St., NW Suite 1000</b> </streetAddressLine> <city> <b>Washington</b> </city> <state> <b>DC</b> </state> <postalCode> <b>20005</b> </postalCode> <country> <b>US</b> </country> </addr> </representedCustodianOrganization> </assignedCustodian> </Custodian>
informationRecipient	1..1	D	<informationRecipient> <intendedRecipient> <id extension="PQRS_MU_INDIVIDUAL" root="2.16.840.1.113883.3.249.7"/> </intendedRecipient> </informationRecipient>
legalAuthenticator	1..1	F	<legalAuthenticator>
	1..1	F	<documentationOf>
	1..1	F	<serviceEvent classCode="PCPR">
effectiveTime	1..1	D	<effectiveTime> <low value=" YYYYMMDDHHMMSS + <b>TimeZone</b> "/> <high value=" YYYYMMDDHHMMSS + <b>TimeZone</b> "/> </effectiveTime>
Service Event Performer	1..1	D	<performer typeCode="PRF">
	1..1	D	<functionCode code="PCP" displayName="Primary Care Provider" codeSystemName="Provider Role" codeSystem="2.16.840.1.113883.12.443"/>
	1..1	F	<assignedEntity>

**Note:** Bolded values in the table indicate that the item should be updated by the vendor.



Key Fields	Card	Fixed/ Dynamic	Fixed Value/Format
Service Provider NPI	1..1	D	<!--A VALID NPI FOR THE SERVICE PROVIDER IS REQUIRED FOR REPORTING--> <id extension="NPI" root="2.16.840.1.113883.4.6"/>
Service Provider Taxonomy	1..1	D	<code code="Provider Taxonomy Code" displayName="Provider Specialty" codeSystem="2.16.840.1.113883.6.101"/>
Service Provider Address	1..1	D	<addr> <streetAddressLine>Provider Street Address</streetAddressLine> <city> Provider City</city> <state> Provider State</state> <postalCode>Provider Zip</postalCode> <country>US</country> </addr>
Service Provider Telephone	1..1	D	<telecom value="tel:(###)###-####" use="WP"/>
Service Provider Name	1..1	D	<assignedPerson> <name> <given>Provider First Name</given> <family>Provider Last Name </family> </name> </assignedPerson>
	1..1	F	<representedOrganization>
Organization Taxpayer Identification Number (TIN)	1..1	D	<!--TIN FOR THE ORGANIZATION--> <id extension="TIN" root="2.16.840.1.113883.4.2"/>

**Notes:** Bolded values in the table indicate that the item should be updated by the vendor.  
NPIs used in NCQA's test decks are not valid numbers and are strictly for testing purposes.

Figure 1: QRDA Category I Header Example

```

<?xml version="1.0"?>
- <ClinicalDocument xmlns:sdct="urn:hl7-org:sdct" xmlns:cda="urn:hl7-org:v3" xmlns="urn:hl7-org:v3"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <realmCode code="US"/>
  <typeId extension="POCD_HD000040" root="2.16.840.1.113883.1.3"/>
  <templateId extension="2014-06-09" root="2.16.840.1.113883.10.20.22.1.1"/>
  <templateId extension="2014-12-01" root="2.16.840.1.113883.10.20.24.1.1"/>
  <templateId extension="2014-12-01" root="2.16.840.1.113883.10.20.24.1.2"/>
  <templateId extension="2015-07-01" root="2.16.840.1.113883.10.20.24.1.3"/>
  <id extension="95000" root="2.16.840.1.113883.3.464.1005.1"/>
  <code code="55182-0" displayName="Quality Measure Report" codeSystemName="LOINC"
    codeSystem="2.16.840.1.113883.6.1"/>
  <title>NCQA QRDA Category I Test Data for Quality Measure: Controlling High Blood Pressure
    CMS165v3</title>
  <effectiveTime value="20160309"/>
  <confidentialityCode code="N" codeSystem="2.16.840.1.113883.5.25"/>
  <languageCode code="en"/>
- <recordTarget>
  - <patientRole>
    <id extension="95000" root="2.16.840.1.113883.3.464.1005.1"/>
    - <addr>
      <streetAddressLine>3673 Yellow Parkway</streetAddressLine>
      <city>Cleveland</city>
      <state>OK</state>
      <postalCode>23145</postalCode>
      <country>US</country>
    </addr>
    <telecom value="tel:(201)003-5349" use="HP"/>
    - <patient>
      - <name>
        <given>Timothy</given>
        <family>CBPAaron</family>
      </name>
      <administrativeGenderCode code="F" codeSystem="2.16.840.1.113883.5.1"/>
      <birthTime value="19300101"/>
      <raceCode code="2028-9" codeSystem="2.16.840.1.113883.6.238"/>
      <ethnicGroupCode code="2186-5" codeSystem="2.16.840.1.113883.6.238"/>
      - <languageCommunication>
        <languageCode code="eng"/>
      </languageCommunication>
    </patient>
  </patientRole>
</recordTarget>
- <author>
  <functionCode code="PCP" displayName="Primary Care Provider" codeSystemName="Provider Role"
    codeSystem="2.16.840.1.113883.5.88"/>
  <time value="20160309152936"/>
  - <assignedAuthor>
    <id extension="9999999999" root="2.16.840.1.113883.4.6"/>
    <code code="200000000X" displayName="Allopathic & Osteopathic Physicians"

```

```

        codeSystem="2.16.840.1.113883.6.101"/>
    - <addr use="WP">
        <streetAddressLine>1100 13th St., NW Suite 1000</streetAddressLine>
        <city>Washington</city>
        <state>DC</state>
        <postalCode>20005</postalCode>
        <country>US</country>
    </addr>
    <telecom value="tel: 202-955-3500" use="WP"/>
    - <assignedPerson>
        - <name>
            <given>Henry</given>
            <family>Seven</family>
        </name>
    </assignedPerson>
</assignedAuthor>
</author>
- <custodian>
    - <assignedCustodian>
        - <representedCustodianOrganization>
            <!-- NCQA OID -->
            <id root="2.16.840.1.113883.3.464"/>
            <name>National Committee for Quality Assurance (NCQA)</name>
            <telecom value="tel: 202-955-3500" use="WP"/>
            - <addr use="WP">
                <streetAddressLine>1100 13th St., NW Suite 1000</streetAddressLine>
                <city>Washington</city>
                <state>DC</state>
                <postalCode>20005</postalCode>
                <country>US</country>
            </addr>
        </representedCustodianOrganization>
    </assignedCustodian>
</custodian>
- <informationRecipient>
    - <intendedRecipient>
        <id extension="PQRS_MU_INDIVIDUAL" root="2.16.840.1.113883.3.249.7"/>
    </intendedRecipient>
</informationRecipient>
- <legalAuthenticator>
    <time value="20160309152936"/>
    <signatureCode code="S"/>
    - <assignedEntity>
        <!-- NCQA OID -->
        <id root="2.16.840.1.113883.3.464"/>
        - <addr use="WP">
            <streetAddressLine>1100 13th St., NW Suite 1000</streetAddressLine>
            <city>Washington</city>
            <state>DC</state>
            <postalCode>20005</postalCode>

```

```

        <postalCode>20005</postalCode>
        <country>US</country>
    </addr>
    <telecom value="tel: 202-955-3500" use="WP"/>
- <assignedPerson>
    - <name>
        <given>Henry</given>
        <family>Seven</family>
    </name>
    </assignedPerson>
</assignedEntity>
</legalAuthenticator>
- <documentationOf>
    - <serviceEvent classCode="PCPR">
        - <effectiveTime>
            <low value="201209080000-0400"/>
            <high value="201209150000-0400"/>
        </effectiveTime>
        - <performer typeCode="PRF">
            <functionCode code="PCP" displayName="Primary Care Provider" codeSystemName="Provider
                Role" codeSystem="2.16.840.1.113883.12.443"/>
            - <assignedEntity>
                <!-- Provider NPI "PseudoMD-1" -->
                <id extension="222222222" root="2.16.840.1.113883.4.6"/>
                <code code="200000000X" displayName="Allopathic & Osteopathic Physicians"
                    codeSystem="2.16.840.1.113883.6.101"/>
            - <addr>
                <streetAddressLine>1002 Healthcare Drive </streetAddressLine>
                <city>Portland</city>
                <state>OR</state>
                <postalCode>99123</postalCode>
                <country>US</country>
            </addr>
            <telecom value="tel:555-555-1002" use="WP"/>
            - <assignedPerson>
                - <name>
                    <given>Henry</given>
                    <family>Seven</family>
                </name>
                </assignedPerson>
            - <representedOrganization>
                <!-- CMS SHALL - This is the organization TIN -->
                <id extension="521191985" root="2.16.840.1.113883.4.2"/>
            </representedOrganization>
        </assignedEntity>
    </performer>
</serviceEvent>
</documentationOf>

```

**QRDA Category I Measure Section**

The *Measure Section* provides information on the measure being reported. This section encompasses the entries for the Measure Data section and its aggregate counts, as well as each Supplemental Data Elements' stratified aggregate counts.

**Table 3: QRDA Category I Measure Section Constraints Overview**

Key Fields	Card	Fixed/ Dynamic	Fixed Value/Format
Measure Section	1..*		component/structuredBody/component/section
	1..1	F	<templateId root="2.16.840.1.113883.10.20.24.2.2"/> <templateId root="2.16.840.1.113883.10.20.24.2.3"/>
	1..1	F	<code code="55186-1" codeSystemName="LOINC" codeSystem="2.16.840.1.113883.6.1"/>
	1..1	F	<title>Measure Section</title>
Measure Section for Patient ID	1..1	D	<text> Measure Section for patient <b>[Patient ID]</b> </text>
	1..1	F	<entry>
	1..1	F	<organizer classCode="CLUSTER" moodCode="EVN">
	1..1	F	<templateId root="2.16.840.1.113883.10.20.24.3.98"/> <templateId root="2.16.840.1.113883.10.20.24.3.97"/>
	1..1	D	<id root=" <b>[System Generated]</b> ">
	1..1	F	<statusCode code="completed"/> <reference typeCode="REFR">
	1..1	F	<externalDocument classCode="DOC" moodCode="EVN">
Measure Version Specific Identifier	1..1	D	<id extension=" <b>[Version Specific Identifier]</b> " root="2.16.840.1.113883.4.738"/>
	1..1	F	<code code="57024-2" displayName="Health Quality Measure Document" codeSystemName="LOINC" codeSystem="2.16.840.1.113883.6.1"/>
Measure Name	1..1	D	<text> <b>[Measure Name]</b> </text>
Measure Version Neutral Identifier	1..1	D	<setId root=" <b>[Version Neutral Identifier]</b> "/>

**Note:** Bolded values in the table indicate that the item should be updated by the vendor.

Figure 2: QRDA Category I Measure Section Example

```

- <component>
  - <structuredBody>
    - <component>
      - <section>
        <templateId root="2.16.840.1.113883.10.20.24.2.2"/>
        <templateId root="2.16.840.1.113883.10.20.24.2.3"/>
        <code code="55186-1" codeSystemName="LOINC" codeSystem="2.16.840.1.113883.6.1"/>
        <title>Measure Section</title>
        <text> Measure Section for patient 95000</text>
      - <entry>
        - <organizer classCode="CLUSTER" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.24.3.98"/>
          <templateId root="2.16.840.1.113883.10.20.24.3.97"/>
          <id root="73f918d1-043b-44e0-8bc6-cffa5a3e93d6"/>
          <statusCode code="completed"/>
          - <reference typeCode="REFR">
            - <externalDocument classCode="DOC" moodCode="EVN">
              <id extension="40280381-4600-425f-0146-1f6f722b0f17"
                root="2.16.840.1.113883.4.738"/>
              <code code="57024-2" displayName="Health Quality Measure Document"
                codeSystemName="LOINC" codeSystem="2.16.840.1.113883.6.1"/>
              <text>Controlling High Blood Pressure</text>
              <setId root="abdc37cc-bac6-4156-9b91-d1be2c8b7268"/>
            </externalDocument>
          </reference>
        </organizer>
      </entry>
    </section>
  </component>

```

**QRDA Category I Reporting Parameters Section**

The *Reporting Parameters Section* lists information on the reporting time interval for the patient data being reported.

**Table 4: QRDA Category I Reporting Parameters Section Constraints Overview**

Key Fields	Card	Fixed/ Dynamic	Fixed Value/Format
Reporting Parameters Section	1..*	F	component/structuredBody/component/section
	1..1	F	<templateId root="2.16.840.1.113883.10.20.17.2.1"/>
	1..1	F	<code code="55187-9" codeSystemName="LOINC" codeSystem="2.16.840.1.113883.6.1"/>
	1..1	F	<title>Reporting Parameters</title>
Reporting Period	1..1	D	<text>Reporting Period:1/1/YYYY-12/31/YYYY</text>
	1..1	F	<entry typeCode="DRIV">
	1..1	F	<act classCode="ACT" moodCode="EVN">
	1..1	F	<templateId root="2.16.840.1.113883.10.20.17.3.8"/>
System Generated ID		F	<id root=" <b>[System Generated]</b> ">
	1..1	F	<code code="252116004" displayName="Observation Parameters" codeSystemName="SNOMED CT" codeSystem="2.16.840.1.113883.6.96">
Effective Time	1..1	D	<effectiveTime> <low value="YYYY0101"/> <high value="YYYY1231"/> </effectiveTime>

**Note:** Bolded values in the table indicate that the item should be updated by the vendor.

**Figure 3: QRDA Category I Reporting Parameters Section Example**

```

- <component>
  - <section>
    <templateId root="2.16.840.1.113883.10.20.17.2.1"/>
    <code code="55187-9" codeSystemName="LOINC" codeSystem="2.16.840.1.113883.6.1"/>
    <title>Reporting Parameters</title>
    <text>Reporting Period:1/1/2015-12/31/2015</text>
  - <entry typeCode="DRIV">
    - <act classCode="ACT" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.17.3.8"/>
      <id root="423c2909-1471-4623-a466-72d04b82d98b"/>
      <code code="252116004" displayName="Observation Parameters"
        codeSystemName="SNOMED-CT" codeSystem="2.16.840.1.113883.6.96"/>
      - <effectiveTime>
        <low value="20150101"/>
        <high value="20151231"/>
        </effectiveTime>
      </act>
    </entry>
  </section>
</component>

```

## QRDA Category I Patient Data Section

The *Patient Data Section* lists the clinically significant data elements that are defined by the measure being reported. This section contains the Quality Data Model (QDM)-based QRDA entry templates that conform to the [HL7 QRDA Category I Implementation Guide](#). Please refer to the HL7 Guide for the specific QDM datatype templates used for the measures you are testing.

**Table 4: QRDA Category I Patient Data Section Constraints Overview**

Key Fields	Card	Fixed/Dynamic	Fixed Value/Format
Reporting Parameters Section	1..*	F	component/structuredBody/component/section
	1..1	F	<templateId root="2.16.840.1.113883.10.20.17.2.4"/> <templateId root="2.16.840.1.113883.10.20.24.2.1"/>
	1..1	F	<code code="55188-7" codeSystem="2.16.840.1.113883.6.1"/>
	1..1	F	<title>Patient Data</title>
SectionText	1..1	D	<text>Patient Data</text>
QDM-based QRDA Template Entries	1..*	D	<!--TEMPLATE USED IS BASED ON THE CRITERIA DEFINED FOR THE REPORTED MEASURE-->  </entry/

**Note:** Bolded values in the table indicate that the item should be updated by the vendor.

## Figure 4: QRDA Category I Patient Data Section Example

*Patient Data: Encounter, Active Template*

```

- <component>
  - <section>
    <templateId root="2.16.840.1.113883.10.20.17.2.4"/>
    <templateId root="2.16.840.1.113883.10.20.24.2.1"/>
    <code code="55188-7" codeSystem="2.16.840.1.113883.6.1"/>
    <title>Patient Data</title>
    <text>Patient Data</text>
  - <entry>
    - <encounter classCode="ENC" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.49"/>
      <templateId root="2.16.840.1.113883.10.20.24.3.21"/>
      <id root="b09db4cd-949c-417b-81f8-9e837fe4b0bc"/>
      <code code="99347" displayName="Unknown Encounter Code"
        codeSystemName="CPT" codeSystem="2.16.840.1.113883.6.12"/>
      <text>Encounter, Active</text>
      <statusCode code="active"/>
    - <effectiveTime>
      <low value="20150531"/>
      <high value="20150531"/>
    </effectiveTime>
    </encounter>
  </entry>

```



**QRDA Category III**

This specification outlines the key fields to include in your QRDA Category III report for scoring.

**Table 6: Supported QRDA Category III Report Layout Templates**

Template Title	Template Type	Template ID
QRDA Category III Report	document	2.16.840.1.113883.10.20.27.1.1
Reporting Parameters	section	2.16.840.1.113883.10.20.27.2.2
Reporting Parameters Act	entry	2.16.840.1.113883.10.20.17.3.8
Measure Section	section	2.16.840.1.113883.10.20.27.2.1
Measure Reference and Results	entry/organizer	2.16.840.1.113883.10.20.27.3.1
Measure Data	entry	2.16.840.1.113883.10.20.27.3.
Aggregate Count	entry	2.16.840.1.113883.10.20.27.3.24
Ethnicity Supplemental Data Element	entry	2.16.840.1.113883.10.20.27.3.22
<i>*Aggregate Count</i>	<i>entry</i>	<i>2.16.840.1.113883.10.20.27.3.24</i>
Race Supplemental Data Element	entry	2.16.840.1.113883.10.20.27.3.19
<i>*Aggregate Count</i>	<i>entry</i>	<i>2.16.840.1.113883.10.20.27.3.24</i>
Sex Supplemental Data Element	entry	2.16.840.1.113883.10.20.27.3.21
<i>*Aggregate Count</i>	<i>entry</i>	<i>2.16.840.1.113883.10.20.27.3.24</i>
Payer Supplemental Data Element	entry	2.16.840.1.113883.10.20.27.3.18
<i>*Aggregate Count</i>	<i>entry</i>	<i>2.16.840.1.113883.10.20.27.3.24</i>

*\*These are stratified aggregate counts for the supplemental data elements, which use the same aggregate count template that is described after Measure Data.*

**QRDA Category III Document Header**

The QRDA Category III header contains information on the report attributes (e.g. date/time, clinical document type) and roles (who/what created the report, provider(s) submitting data, and the EHR software that processed the report data).

**Table 7: QRDA Category III Header Constraints Overview**

Key Fields	Card	Fixed/ Dynamic	Fixed Value/Format
ClinicalDocument		F	<?xml version="1.0"?> <ClinicalDocument xmlns:sdctc="urn:hl7-org:sdctc" xmlns:cda="urn:hl7-org:v3" xmlns="urn:hl7-org:v3" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
		F	<realmCode code="US"/>
		F	<typeId extension="POCD_HD000040" root="2.16.840.1.113883.1.3"/>
		F	<templateId root="2.16.840.1.113883.10.20.27.1.1"/>
Unique document ID		D	<id root="[" <b>System Generated</b> ]" />

**Note:** Bolded values in the table indicate that the item should be updated by the vendor.

Key Fields	Card	Fixed/ Dynamic	Fixed Value/Format
		F	<code code="55184-6" displayName="Quality Reporting Document Architecture Calculated Summary Report" codeSystemName="LOINC" codeSystem="2.16.840.1.113883.6.1"/>
Measure Title CMS ID + Release Version #		D	<title> QRDA Calculated Summary Report for <b>[Measure Title] [CMSID] [Version Number]</b> </title>
		D	<effectiveTime value="YYYYMMDD"/>
		F	<confidentialityCode code="N" codeSystem="2.16.840.1.113883.5.25"/>
		F	<languageCode code="en-US"/>
Document Version #		D	<versionNumber value=" <b>Version Number</b> ">
recordTarget		F	<recordTarget> <patientRole> <id nullFlavor="NA"/> </patientRole> </recordTarget>
author		F	<author>
		D	<time value="YYYYMMDDHHMMSS"/>
Person Author		D	<assignedAuthor> <!--A VALID NPI IS REQUIRED --> <id extension="NPI" root="2.16.840.1.113883.4.6"/> <assignedPerson> <name> <given> <b>First Name</b> </given> <family> <b>Last Name</b> </family> </name> </assignedPerson>
Device Author		D	<assignedAuthor> <!-- VENDOR OID --> <id root="System Generated"/> <assignedAuthoringDevice> <softwareName> <b>Vendor's Software Name</b> </softwareName> </assignedAuthoringDevice>
Organization		D	<representedOrganization> <!-- VENDOR OID --> <id root="2.16.840.1.113883.3.464"/>
		D	<name> <b>Vendor's Company Name</b> </name>
		D	<telecom value="tel: 202-955-3500" use="WP"/>

**Notes:** Bolded values in the table indicate that the item should be updated by the vendor.  
NPIs used in NCQA's test decks are not valid numbers and are strictly for testing purposes.

Key Fields	Card	Fixed/ Dynamic	Fixed Value/Format
Organization's Address		D	<pre>&lt;addr use="WP"&gt;   &lt;streetAddressLine&gt;<b>Vendor's Street Address</b>&lt;/streetAddressLine&gt;   &lt;city&gt;<b>Vendor's City</b>&lt;/city&gt;   &lt;state&gt;<b>Vendor State</b>&lt;/state&gt;   &lt;postalCode&gt;<b>Vendor Zip</b>&lt;/postalCode&gt;   &lt;country&gt;<b>US</b>&lt;/country&gt; &lt;/addr&gt; &lt;/representedOrganization&gt; &lt;/assignedAuthor&gt; &lt;/author&gt;</pre>
custodian		F	<custodian>
		D	<pre>&lt;assignedCustodian&gt;   &lt;representedCustodianOrganization&gt;     &lt;!-- CLIENT OID --&gt;     &lt;id root="2.16.840.1.113883.3.464"/&gt;</pre>
		F	<name> <b>National Committee for Quality Assurance (NCQA)</b> </name>
		F	<telecom value="tel: 202-955-3500" use="WP"/>
		F	<pre>&lt;addr use="WP"&gt;   &lt;streetAddressLine&gt;<b>1100 13th St., NW Suite 1000</b>&lt;/streetAddressLine&gt;   &lt;city&gt;<b>Washington</b>&lt;/city&gt;   &lt;state&gt;<b>DC</b>&lt;/state&gt;   &lt;postalCode&gt;<b>20005</b>&lt;/postalCode&gt;   &lt;country&gt;<b>US</b>&lt;/country&gt; &lt;/addr&gt; &lt;/representedCustodianOrganization&gt; &lt;/assignedCustodian&gt; &lt;/Custodian&gt;</pre>
legalAuthenticator		F	<legalAuthenticator>
		D	<time value="YYYYMMDDHHMMSS + TimeZone"/>
		F	<signatureCode code="S"/>
		D	<pre>&lt;assignedEntity&gt;   &lt;!-- Vendor OID --&gt;   &lt;id root="2.16.840.1.113883.3.464"/&gt;</pre>
		D	<representedOrganization>
		D	<name> <b>Vendor Company Name</b> </name>
		D	<telecom value="tel: 202-955-3500" use="WP"/>

**Note:** Bolded values in the table indicate that the item should be updated by the vendor.

Key Fields	Card	Fixed/ Dynamic	Fixed Value/Format
		D	<pre> &lt;addr use="WP"&gt;   &lt;streetAddressLine&gt;<b>Vendor's Street Address</b> &lt;/streetAddressLine&gt;   &lt;city&gt;<b>Vendor City</b>&lt;/city&gt;   &lt;state&gt;<b>Vendor State</b>&lt;/state&gt;   &lt;postalCode&gt;<b>Vendor Zip</b>&lt;/postalCode&gt;   &lt;country&gt;<b>US</b>&lt;/country&gt; &lt;/addr&gt; &lt;/representedOrganization&gt; &lt;/assignedEntity&gt; &lt;/legalAuthenticator &gt; </pre>

**Note:** Bolded values in the table indicate that the item should be updated by the vendor.

Figure 5: QRDA Category III Header Example

```

<?xml version="1.0"?>
- <ClinicalDocument xmlns:sdct="urn:hl7-org:sdct" xmlns:cda="urn:hl7-org:v3" xmlns="urn:hl7-org:v3"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <realmCode code="US"/>
  <typeId extension="POCD_HD000040" root="2.16.840.1.113883.1.3"/>
  <templateId root="2.16.840.1.113883.10.20.27.1.1"/>
  <id root="a28e5fcf-1717-4864-9db6-554a53ee1ccf"/>
  <code code="55184-6" displayName="Quality Reporting Document Architecture Calculated Summary
    Report" codeSystemName="LOINC" codeSystem="2.16.840.1.113883.6.1"/>
  <title>QRDA Calculated Summary Report for Controlling High Blood Pressure CMS165v3</title>
  <effectiveTime value="20150820"/>
  <confidentialityCode code="N" codeSystem="2.16.840.1.113883.5.25"/>
  <languageCode code="en-US"/>
  <versionNumber value="1"/>
  - <recordTarget>
    - <patientRole>
      <id nullFlavor="NA"/>
    </patientRole>
  </recordTarget>
  - <author>
    <time value="20150820124343"/>
    - <assignedAuthor>
      <!-- NCQA OID -->
      <id root="2.16.840.1.113883.3.464"/>
      - <assignedAuthoringDevice>
        <softwareName>NCQA QRDA Category III Generator</softwareName>
      </assignedAuthoringDevice>
      - <representedOrganization>
        <!-- NCQA OID -->
        <id root="2.16.840.1.113883.3.464"/>
        <name>National Committee for Quality Assurance (NCQA)</name>
        <telecom value="tel: 202-955-3500" use="WP"/>
        - <addr use="WP">
          <streetAddressLine>1100 13th St., NW Suite 1000</streetAddressLine>
          <city>Washington</city>
          <state>DC</state>
          <postalCode>20005</postalCode>
          <country>US</country>
        </addr>
      </representedOrganization>
    </assignedAuthor>
  </author>

```

```
- <custodian>
  - <assignedCustodian>
    - <representedCustodianOrganization>
      <!-- NCQA OID -->
      <id root="2.16.840.1.113883.3.464"/>
      <name>National Committee for Quality Assurance (NCQA)</name>
      <telecom value="tel: 202-955-3500" use="WP"/>
      - <addr use="WP">
        <streetAddressLine>1100 13th St., NW Suite 1000</streetAddressLine>
        <city>Washington</city>
        <state>DC</state>
        <postalCode>20005</postalCode>
        <country>US</country>
      </addr>
    </representedCustodianOrganization>
  </assignedCustodian>
</custodian>
- <legalAuthenticator>
  <time value="20150820124343"/>
  <signatureCode code="S"/>
  - <assignedEntity>
    <!-- NCQA OID -->
    <id root="2.16.840.1.113883.3.464"/>
    - <representedOrganization>
      <name>National Committee for Quality Assurance (NCQA)</name>
      <telecom value="tel: 202-955-3500" use="WP"/>
      - <addr use="WP">
        <streetAddressLine>1100 13th St., NW Suite 1000</streetAddressLine>
        <city>Washington</city>
        <state>DC</state>
        <postalCode>20005</postalCode>
        <country>US</country>
      </addr>
    </representedOrganization>
  </assignedEntity>
</legalAuthenticator>
```

## QRDA Category III Reporting Parameters Section

The *Reporting Parameters Section* lists information on the time interval for the reporting period.

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

Key Fields	Card	Fixed/ Dynamic	Fixed Value/Format
Section	1..*	F	component/structuredBody/component/section
	1..1	F	<templateId root="2.16.840.1.113883.10.20.17.2.1"/>
	1..1	F	<templateId root="2.16.840.1.113883.10.20.27.2.2"/>
	1..1	F	<code code="55187-9" codeSystemName="LOINC" codeSystem="2.16.840.1.113883.6.1"/>
	1..1	F	<title>Reporting Parameters</title>
SectionText	1..1	D	<text>Reporting Period:1/1/YYYY-12/31/YYYY</text>
	1..*	F	<entry typeCode="DRIV">
Reporting Parameters Act	1..1	F	<act classCode="ACT" moodCode="EVN">
	1..1	F	<templateId root="2.16.840.1.113883.10.20.17.3.8"/>
	1..*	D	<id root="System Identifier" extension="[Unique ID]" or <id root="[Global Unique ID]">
Activity Type	1..1	F	<code code="252116004" displayName="Observation Parameters" codeSystemName="SNOMED CT" codeSystem="2.16.840.1.113883.6.96">
Effective Time	1..1	D	<effectiveTime> <low value="YYYY0101"/> <high value="YYYY1231"/> </effectiveTime>

**Note:** Bolded values in the table indicate that the item should be updated by the vendor.

**Figure 6: QRDA Category III Reporting Parameters Section Example**

```

- <section>
  <templateId root="2.16.840.1.113883.10.20.17.2.1"/>
  <templateId root="2.16.840.1.113883.10.20.27.2.2"/>
  <code code="55187-9" codeSystemName="LOINC" codeSystem="2.16.840.1.113883.6.1"/>
  <title>Reporting Parameters</title>
  <text>Reporting Period:1/1/2012-12/31/2012</text>
- <entry typeCode="DRIV">
  - <act moodCode="EVN" classCode="ACT">
    <templateId root="2.16.840.1.113883.10.20.17.3.8"/>
    <id root="a09cd841-21b5-4c1a-8639-167011496d18"/>
    <code code="252116004" displayName="Observation Parameters"
      codeSystemName="SNOMED-CT" codeSystem="2.16.840.1.113883.6.96"/>
    - <effectiveTime>
      <low value="20120101"/>
      <high value="20121231"/>
    </effectiveTime>
  </act>
</entry>
</section>

```

### QRDA Category III Measure Section

---

The *Measure Section* provides information on the measure being reported. This section encompasses the entries for the Measure Data section and its aggregate counts, as well as each Supplemental Data Elements' stratified aggregate counts.

**Table 9: QRDA Category III Measure Section Constraints Overview**

Key Fields	Card	Fixed/ Dynamic	Fixed Value/Format
Section	1..*	F	component/structuredBody/component/section
	1..1	F	<templateId root=" 2.16.840.1.113883.10.20.24.2.2"/>
	1..1	F	<templateId root="2.16.840.1.113883.10.20.27.2.1"/>
	1..1	F	<code code=" 55186-1" codeSystemName="LOINC" codeSystem=" 2.16.840.1.113883.6.1"/>
	1..1	F	<title>Measure Section</title>
Measure Section Text	1..1	D	<pre> &lt;text&gt;   &lt;table width="100%" border="1"&gt;     &lt;thead&gt;       &lt;tr&gt;         &lt;th&gt;Population&lt;/th&gt;         &lt;th&gt;Count&lt;/th&gt;       &lt;/tr&gt;     &lt;/thead&gt;     &lt;tbody&gt;       &lt;tr&gt;         &lt;td&gt;           &lt;content ID="pop1"&gt;<b>IPP</b>&lt;/content&gt;         &lt;/td&gt;         &lt;td&gt;           &lt;content ID="count1"&gt;###&lt;/content&gt;         &lt;/td&gt;       &lt;tr&gt;         &lt;td&gt;           &lt;content ID="pop2"&gt;<b>DENOM</b>&lt;/content&gt;         &lt;/td&gt;         &lt;td&gt;           &lt;content ID="count2"&gt;###&lt;/content&gt;         &lt;/td&gt;       &lt;tr&gt;         &lt;td&gt;           &lt;content ID="pop3"&gt;<b>DENEX</b>&lt;/content&gt;         &lt;/td&gt;         &lt;td&gt;           &lt;content ID="count3"&gt;##&lt;/content&gt;         &lt;/td&gt;       &lt;tr&gt;         &lt;td&gt;           &lt;content ID="pop4"&gt;<b>NUMER</b>&lt;/content&gt;         &lt;/td&gt;         &lt;td&gt;           &lt;content ID="count4"&gt;##&lt;/content&gt;         &lt;/td&gt;       &lt;/tr&gt;     &lt;/tbody&gt;   &lt;/table&gt; </pre>

**Note:** Bolded values in the table indicate that the item should be updated by the vendor.



Key Fields	Card	Fixed/ Dynamic	Fixed Value/Format
	1..1	F	<entry>
Measure Reference and Results	1..*	F	<organizer classCode="CLUSTER" moodCode="EVN">
	1..1	F	<templateId root="2.16.840.1.113883.10.20.24.3.98"/>
	1..1	F	<templateId root="2.16.840.1.113883.10.20.27.3.1"/>
	1..1	F	<statusCode code="completed"/>
	1..1	F	<reference typeCode="REFR">
	1..1	F	<externalDocument classCode="DOC" moodCode="EVN">
Measure Version Specific Identifier	1..*	D	<id root= 2.16.840.1.113883.4.738 extension="Version Specific Identifier" />
	1..1	F	<code code="57024-2" displayName="Health Quality Measure Document" codeSystemName="LOINC" codeSystem="2.16.840.1.113883.6.1">
Measure Release Version	1..1	D	<text>[Measure Name]</text> <versionNumber value="Release Version Number"/>

**Note:** Bolded values in the table indicate that the item should be updated by the vendor.

Figure 7: QRDA Category III Measure Section 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"/>
    <code code="55186-1" codeSystemName="LOINC" codeSystem="2.16.840.1.113883.6.1"/>
    <title>Measure Section</title>
  - <text>
    - <table width="100%" border="1">
      - <thead>
        - <tr>
          <th>Population</th>
          <th>Count</th>
        </tr>
      </thead>
      - <tbody>
        - <tr>
          - <td>
            <content ID="pop1">IPP</content>
          </td>
          - <td>
            <content ID="count1">417</content>
          </td>
        </tr>
        - <tr>
          - <td>
            <content ID="pop2">DENOM</content>
          </td>
          - <td>
            <content ID="count2">417</content>
          </td>
        </tr>
        - <tr>
          - <td>
            <content ID="pop3">DENEX</content>
          </td>
          - <td>
            <content ID="count3">140</content>
          </td>
        </tr>
        - <tr>
          - <td>
            <content ID="pop4">NUMER</content>
          </td>
          - <td>
            <content ID="count4">35</content>
          </td>
        </tr>
      </tbody>
    </table>
  </text>
  - <entry>
    - <organizer moodCode="EVN" classCode="CLUSTER">
      <templateId root="2.16.840.1.113883.10.20.24.3.98"/>
      <templateId root="2.16.840.1.113883.10.20.27.3.1"/>
      <statusCode code="completed"/>
    - <reference typeCode="REFR">
      - <externalDocument moodCode="EVN" classCode="DOC">
        <id extension="40280381-3d61-56a7-013e-66bc02da4dee" root="2.16.840.1.113883.4.738"/>
        <code code="57024-2" displayName="Health Quality Measure Document" codeSystemName="LOINC"
          codeSystem="2.16.840.1.113883.6.1"/>
        <text>Controlling High Blood Pressure</text>
        <versionNumber value="1"/>
      </externalDocument>
    </reference>
  </entry>
- </component>

```

**QRDA Category III Measure Data**

The *Measure Data* contains a single measure population count. For example, there is one measure data component for the measure’s initial patient population (IPP), denominator (DENOM), denominator exclusions (DENEX), and numerator (NUM). The stratified aggregated counts for the supplemental data elements are listed for each population. There should be only one node for each supplemental data element’s entire stratified count per population.

**Table 10: QRDA Category III Measure Data Constraints Overview**

Key Fields	Card	Fixed/ Dynamic	Fixed Value/Format
observation	1..*	F	component/observation
	1..1	F	<observation classCode="OBS" moodCode="EVN">
	1..1	F	<templateId root="2.16.840.1.113883.10.20.27.3.5"/>
	1..1	F	<code code="ASSERTION" displayName="Assertion" codeSystemName="ActCode" codeSystem="2.16.840.1.113883.5.4"/>
	1..1	F	<statusCode code="completed"/>
	1..1	D	<value code="IPP" displayName="initial patient population" codeSystemName="ObservationValue" codeSystem="2.16.840.1.113883.5.1063" xsi:type="CD"/>
		F	<entryRelationship typeCode="SUBJ" inversionInd="true">
Aggregate Count		D	<b>**!-- Aggregate Count Template Follows --!**</b>

*Note: Bolded values in the table indicate that the item should be updated by the vendor.*

**Figure 8: QRDA Category III Measure Data Example**

```

- <component>
  - <observation moodCode="EVN" classCode="OBS">
    <templateId root="2.16.840.1.113883.10.20.27.3.5"/>
    <code code="ASSERTION" displayName="Assertion" codeSystemName="ActCode" codeSystem="2.16.840.1.113883.5.4"/>
    <statusCode code="completed"/>
    <value code="IPP" displayName="initial patient population" codeSystemName="ObservationValue"
      codeSystem="2.16.840.1.113883.5.1063" xsi:type="CD"/>
  - <entryRelationship typeCode="SUBJ" inversionInd="true">
  
```

**QRDA Category III Aggregate Count**

The *Aggregate Count* lists the aggregated numbers for the parent template (e.g. the number of patients in the IPP, DENOM, DENEX, NUM, and Supplemental Data Elements).

**Table 11: QRDA Category III Aggregate Count Constraints Overview**

Key Fields	Card	Fixed/ Dynamic	Fixed Value/Format
observation	1..*	F	component/observation
	1..1	F	<observation classCode="OBS" moodCode="EVN">
	1..1	F	<templateId root="2.16.840.1.113883.10.20.27.3.3"/>
	1..1	F	<code code="MSRAGG" displayName="rate aggregation" codeSystemName="ActCode" codeSystem="2.16.840.1.113883.5.4"/>
	1..1	D	<value xsi:type="INT" value="417"/>
	1..1	F	<methodCode code="COUNT" displayName="count" codeSystemName="ObservationMethod" codeSystem="2.16.840.1.113883.5.84"/>

*Note: Bolded values in the table indicate that the item should be updated by the vendor.*

**Figure 9: QRDA Category III Aggregate Count Example**

```

- <observation moodCode="EVN" classCode="OBS">
  <templateId root="2.16.840.1.113883.10.20.27.3.3"/>
  <code code="MSRAGG" displayName="rate aggregation" codeSystemName="ActCode"
    codeSystem="2.16.840.1.113883.5.4"/>
  <value value="417" xsi:type="INT"/>
  <methodCode code="COUNT" displayName="count" codeSystemName="ObservationMethod"
    codeSystem="2.16.840.1.113883.5.84"/>
</observation>
    
```

**QRDA Category III Ethnicity Supplemental Data Element**

The *Ethnicity Supplemental Data Element* provides the number of patients in the population that are Hispanic or not Hispanic.

**Table 12: QRDA Category III Ethnicity Supplemental Data Element Constraints Overview**

Key Fields	Card	Fixed/ Dynamic	Fixed Value/Format
observation	1..1	F	component/observation
	1..1	F	<observation classCode="OBS" moodCode="EVN">
	1..1	F	<templateId root="2.16.840.1.113883.10.20.27.3.7"/>
	1..1	F	<code code="364699009" displayName="Ethnic Group" codeSystemName="SNOMED-CT" codeSystem="2.16.840.1.113883.6.96"/>
	1..1	F	<statusCode code="completed"/>
	1..1	D	<value code="2135-2" displayName="Hispanic or Latino" codeSystemName="Race & Ethnicity - CDC" codeSystem="2.16.840.1.113883.6.238" xsi:type="CD"/>
	1..1	F	<entryRelationship typeCode="SUBJ" inversionInd="true">
<i>Aggregate Count</i>	1..1		<i>**!-- Aggregate Count Template Follows --!**</i>

*Note: Bolded values in the table indicate that the item should be updated by the vendor.*

**Figure 10: QRDA Category III Ethnicity Supplemental Data Element Example**

```

- <observation moodCode="EVN" classCode="OBS">
  <templateId root="2.16.840.1.113883.10.20.27.3.7"/>
  <code code="364699009" displayName="Ethnic Group" codeSystemName="SNOMED-CT"
    codeSystem="2.16.840.1.113883.6.96"/>
  <statusCode code="completed"/>
  <value code="2135-2" displayName="Hispanic or Latino" codeSystemName="Race & Ethnicity - CDC"
    codeSystem="2.16.840.1.113883.6.238" xsi:type="CD"/>
- <entryRelationship typeCode="SUBJ" inversionInd="true">
  - <observation moodCode="EVN" classCode="OBS">
    <templateId root="2.16.840.1.113883.10.20.27.3.3"/>
    <code code="MSRAGG" displayName="rate aggregation" codeSystemName="ActCode"
      codeSystem="2.16.840.1.113883.5.4"/>
    <value value="123" xsi:type="INT"/>
    <methodCode code="COUNT" displayName="count" codeSystemName="ObservationMethod"
      codeSystem="2.16.840.1.113883.5.84"/>
  </observation>
  
```

### QRDA Category III Race Supplemental Data Element

The *Race Supplemental Data Element* provides the number of patients in the population that report a race category. For CMS EP programs, all codes in the value set must be reported, even if the count is zero (e.g. Counts for American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and White must all be listed).

**Table 13: QRDA Category III Race Supplemental Data Element Constraints Overview**

Key Fields	Card	Fixed/ Dynamic	Fixed Value/Format
observation	1..1	F	component/observation
	1..1	F	<observation classCode="OBS" moodCode="EVN">
	1..1	F	<templateId root="2.16.840.1.113883.10.20.27.3.8"/>
	1..1	F	<code code="103579009" displayName="Race" codeSystemName="SNOMED-CT" codeSystem="2.16.840.1.113883.6.96"/>
	1..1	F	<statusCode code="completed"/>
	1..1	D	<value code="2076-8" displayName="Native Hawaiian or Other Pacific Islander" codeSystemName="Race & Ethnicity - CDC" codeSystem="2.16.840.1.113883.6.238" xsi:type="CD"/>
	1..1	F	<entryRelationship typeCode="SUBJ" inversionInd="true">
<i>Aggregate Count</i>	1..1	D	<i>**!-- Aggregate Count Template Follows --!**</i>

**Note:** Bolded values in the table indicate that the item should be updated by the vendor.

**Figure 11: QRDA Category III Race Supplemental Data Element Example**

```

- <observation moodCode="EVN" classCode="OBS">
  <templateId root="2.16.840.1.113883.10.20.27.3.8"/>
  <code code="103579009" displayName="Race" codeSystemName="SNOMED-CT"
    codeSystem="2.16.840.1.113883.6.96"/>
  <statusCode code="completed"/>
  <value code="2076-8" displayName="Native Hawaiian or Other Pacific Islander" codeSystemName="Race & Ethnicity
    - CDC" codeSystem="2.16.840.1.113883.6.238" xsi:type="CD"/>
- <entryRelationship typeCode="SUBJ" inversionInd="true">

```

**QRDA Category III Sex Supplemental Data Element**

The *Sex Supplemental Data Element* provides the number of patients in the population that are a particular sex (e.g. the number of patients who are male, female, or unknown).

**Table 14: QRDA Category III Sex Supplemental Data Element Constraints Overview**

Key Fields	Card	Fixed/ Dynamic	Fixed Value/Format
observation	1..1	F	component/observation
	1..1	F	<observation classCode="OBS" moodCode="EVN">
	1..1	F	<templateId root="2.16.840.1.113883.10.20.27.3.6"/>
	1..1	F	<code code="184100006" displayName="patient sex" codeSystemName="SNOMED-CT" codeSystem="2.16.840.1.113883.6.96"/>
	1..1	F	<statusCode code="completed"/>
	1..1	D	<value code="M" displayName="Male" codeSystemName="HL7AdministrativeGenderCode" codeSystem="2.16.840.1.113883.5.1" xsi:type="CD"/>
	1..1	F	<entryRelationship typeCode="SUBJ" inversionInd="true">
<i>Aggregate Count</i>	1..1	D	<b>**!-- Aggregate Count Template Follows --!**</b>

**Note:** Bolded values in the table indicate that the item should be updated by the vendor.

**Figure 12: QRDA Category III Sex Supplemental Data Element Example**

```

- <observation moodCode="EVN" classCode="OBS">
  <templateId root="2.16.840.1.113883.10.20.27.3.6"/>
  <code code="184100006" displayName="patient sex" codeSystemName="SNOMED-CT"
    codeSystem="2.16.840.1.113883.6.96"/>
  <statusCode code="completed"/>
  <value code="M" displayName="Male" codeSystemName="HL7AdministrativeGenderCode"
    codeSystem="2.16.840.1.113883.5.1" xsi:type="CD"/>
- <entryRelationship typeCode="SUBJ" inversionInd="true">
  - <observation moodCode="EVN" classCode="OBS">
    <templateId root="2.16.840.1.113883.10.20.27.3.3"/>
    <code code="MSRAGG" displayName="rate aggregation" codeSystemName="ActCode"
      codeSystem="2.16.840.1.113883.5.4"/>
    <value value="135" xsi:type="INT"/>
    <methodCode code="COUNT" displayName="count" codeSystemName="ObservationMethod"
      codeSystem="2.16.840.1.113883.5.84"/>
  </observation>
  
```

**QRDA Category III Payer Supplemental Data Element**

The *Payer Supplemental Data Element* provides the number of patients in the population that are covered by a particular policy or program. All payer codes present for the patients in the population should be reported.

**Table 15: QRDA Category III Payer Supplemental Data Element Constraints Overview**

Key Fields	Card	Fixed/ Dynamic	Fixed Value/Format
observation	1..1	F	component/observation
	1..1	F	<observation classCode="OBS" moodCode="EVN">
	1..1	F	<templateId root="2.16.840.1.113883.10.20.24.3.55"/>
	1..1	F	<templateId root="2.16.840.1.113883.10.20.27.3.9"/>
	1..1	D	<id nullFlavor="NA"/>
	1..1	F	<code code="48768-6" displayName="Payment source" codeSystemName="LOINC" codeSystem="2.16.840.1.113883.6.1"/>
	1..1	F	<statusCode code="completed"/> effectiveTime
	1..1	D	<value code="3711" displayName="HMO" codeSystemName="Source of Payment Typology" codeSystem="2.16.840.1.114222.4.11.3591" xsi:type="CD"/>
	1..1	F	<entryRelationship typeCode="SUBJ" inversionInd="true">
<i>Aggregate Count</i>	1..1	D	<i>**!-- Aggregate Count Template Follows --!**</i>

**Note:** Bolded values in the table indicate that the item should be updated by the vendor.

**Figure 13: QRDA Category III Payer Supplemental Data Element Example**

```

- <observation moodCode="EVN" classCode="OBS">
  <templateId root="2.16.840.1.113883.10.20.24.3.55"/>
  <templateId root="2.16.840.1.113883.10.20.27.3.9"/>
  <id root="13033ef3-8d59-45ec-84bf-c3b125801365"/>
  <code code="48768-6" displayName="Payment source" codeSystemName="LOINC"
    codeSystem="2.16.840.1.113883.6.1"/>
  <statusCode code="completed"/>
  <value code="3711" displayName="HMO" codeSystemName="Source of Payment Typology"
    codeSystem="2.16.840.1.114222.4.11.3591" xsi:type="CD"/>
- <entryRelationship typeCode="SUBJ" inversionInd="true">
  - <observation moodCode="EVN" classCode="OBS">
    <templateId root="2.16.840.1.113883.10.20.27.3.3"/>
    <code code="MSRAGG" displayName="rate aggregation" codeSystemName="ActCode"
      codeSystem="2.16.840.1.113883.5.4"/>
    <value value="33" xsi:type="INT"/>
    <methodCode code="COUNT" displayName="count" codeSystemName="ObservationMethod"
      codeSystem="2.16.840.1.113883.5.84"/>
  </observation>
</observation>

```



## APPENDIX E

### Resource Links

#### eCQM

CMS eCQM Library

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

CMS Guide for Reading eCQMs

- [http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/eMeasures\\_GuidetoReading.pdf](http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/eMeasures_GuidetoReading.pdf)

#### CCD

Journal of American Medical Informatics Association (JAMIA)—Health Level 7 (HL7) Clinical Document Architecture, Release 2

- <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1380194/>

Health Level Seven® International (HL7) Implementation Guide for CDA® Release 2: Consolidated CDA Templates for Clinical Notes

- [http://www.hl7.org/implement/standards/product\\_brief.cfm?product\\_id=379](http://www.hl7.org/implement/standards/product_brief.cfm?product_id=379)

HL7 CDA Example Task Force

- [http://wiki.hl7.org/index.php?title=CDA\\_Example\\_Task\\_Force](http://wiki.hl7.org/index.php?title=CDA_Example_Task_Force)

#### QRDA

QRDA Informative Document

- [http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/Guide\\_QRDA\\_2014eCQM.pdf](http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/Guide_QRDA_2014eCQM.pdf)

HL7 QRDA Category I Implementation Guide

- [http://www.hl7.org/implement/standards/product\\_brief.cfm?product\\_id=35](http://www.hl7.org/implement/standards/product_brief.cfm?product_id=35)

HL7 QRDA Category III Implementation Guide

- [http://www.hl7.org/implement/standards/product\\_brief.cfm?product\\_id=286](http://www.hl7.org/implement/standards/product_brief.cfm?product_id=286)

2016 CMS QRDA Implementation Guide for Eligible Professional Programs

- [https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/QRDA\\_2016\\_CMS\\_IG.pdf](https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/QRDA_2016_CMS_IG.pdf)

2016 CMS QRDA Implementation Guide Appendix

- [https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/QRDA\\_Appendix2016.PDF](https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/QRDA_Appendix2016.PDF)