



## Real World Testing Plan – Application Programming Interfaces (APIs)

### Background & Instructions

Under the ONC Health IT Certification Program (Program), the Indian Health Service (IHS) is required to conduct Real World Testing (RWT) of their Certified Health IT (CHIT); otherwise referred to as the IHS Electronic Health Record (EHR). The Office of the National Coordinator for Health Information Technology (ONC) issues Real World Testing resources to clarify responsibilities for conducting Real World Testing.

As a participant in the ONC Health IT Certification Program, the IHS must conduct RWT annually as a Condition and Maintenance of Certification (CMoC) requirement. This annual requirement is outlined in the ONC 21st Century Cures Act Final Rule, which demonstrates interoperability and functionality of the IHS CHIT in real world settings and scenarios. RWT verifies the IHS Certified Health IT continues to perform as intended by conducting and measuring observations of interoperability and data exchange for the criteria specified in this Real World Testing Plan (RWTP). These observations will be reported by each participant to the IHS, which will be consolidated and submitted as Real World Testing Results (RWTR).

### Instructions

The information in this RWTP is organized by specific criteria included in the Application Programming Interfaces (APIs) category. This plan contains sections, which explains/clarifies how the RWT approach addresses each criteria within this category. RWT participants will execute/complete the use case(s) in this RWTP using their normal workflows and processes in the appropriate care setting defined in the care setting(s) section, report any issues/non-conformities found during RWT within 30 days of finding, and provide the IHS with RWTR on the measurements/metrics listed in this RWTP by the date identified in Schedule of Key Milestones section.

### General Information

General Information Name	Description
<b>Plan Report ID Number: [For ONC-Authorized Certification Body use only]:</b>	20211111IND
<b>Developer Name:</b>	The Indian Health Service

General Information Name	Description
Product Name(s):	Resource and Patient Management System Electronic Health Record (RPMS Suite (BCER))
Version Number(s):	v4.1 and v5.0
Certified Health IT:	2015 Certified Health IT
Product List (CHPL) ID(s):	15.02.02.1673.A116.02.03.1.211001
Developer Real World Testing Page URL:	<a href="https://www.ihs.gov/promotinginteroperability/certificationoverview/">https://www.ihs.gov/promotinginteroperability/certificationoverview/</a>

## Use Case Scenarios

The following use cases will test and demonstrate conformance to the criterion within the APIs category using the version of the adopted standard to which each Health IT Module was certified as described in the General Information section.

Use Case	Use Case Overview
Use Case 1 Application Access: Includes §170.315(g)(7) (Patient selection), §170.315(g)(8) (data category request), §170.315(g)(9) (all data request)	The IHS has developed an API that receives a request from another software component/service with enough information about a patient to identify the patient and returns a unique token. The Health IT Module's API will use that token to respond to categories data subsets or full set of data requests for each data category during a specified timeframe within an Ambulatory and Inpatient setting.

## Justification for Real World Testing Approach

The IHS have combined similar criterion that fall within the definition of this specific APIs category, which include §170.315(g)(7), Application access — patient selection, §170.315(g)(8) Application access — data category request, and §170.315(g)(9) Application access — all data request.

APIs simplify software development and innovation by enabling applications to exchange data and functionality easily and securely.

The justification for this APIs category RWT approach is to execute the functions users perform to demonstrate interoperability for the following activities:

- (g)(7) Receive a request with sufficient information to uniquely identify a patient and return a token that can be used by an application to subsequently execute requests for that patient's data.
- (g)(8) Respond to categories of data that are subsets of the entire record including: Patient Demographics, Medications, Med Allergies, Lab Tests/Results, Procedures, etc., within a specified timeframe.
- (g)(9) Respond to full set of data requests for each data category using the unique token specified in the Common Clinical Data Set (CCDS) in a summary record within a specified timeframe.

## Standards Updates (Including Standards Versions Advancement Process (SVAP) and United States Core Data for Interoperability (USCDI))

The RWT for this category will include the standards used as part of the 2015 CHIT certification, which is publicly on the ONC Certified Health IT Product List (CHPL) website.

**Note:** The criterion listed as part of this category have not been updated to any new standards, SVAP, or USCDI prior to August 31, 2021; therefore, this section is not applicable for the calendar year 2022 RWT effort.

Standards Information	Description
Standard (and version)	As noted in the CHPL listing for each of the criteria listed in this RWTP.
Updated certification criteria and associated product	None
Health IT Module CHPL ID	15.02.02.1673.A116.02.03.1.211001
Method used for standard update	N/A
Date of ONC ACB notification	N/A
Date of customer notification (SVAP only)	N/A
Conformance measure	N/A
USCDI updated certification criteria (and USCDI version)	N/A



## Measures Used in Overall Approach

This section of the RWTP describes the measure(s) participants will use to address each certified criterion as part of this RWT effort.

### Description of Measurement/Metric

Measurement/Metric	Description
Measure 1: §170.315(g)(7) - Application Access (Patient selection)	This measure will catalogue the transport mechanisms used to request information to uniquely identify patients and return a unique token.
Measure 2: §170.315(g)(8) - Application Access (data category request)	This measure will catalogue the response to requests for patient data to categories data subsets within specified timeframe.
Measure 3: §170.315(g)(9) - Application Access (all data request)	This measure will catalogue the response to requests for all patient data for each data category within a specified timeframe.

### Associated Certification Criteria

Measurement/Metric	Associated Certification Criteria	Criteria Requirement
Measure 1: §170.315(g)(7) - Application Access (Patient selection)	§170.315(g)(7) Application access — patient selection	(i) Receive a request with sufficient information to uniquely identify a patient and return a unique token, which can be used by an application to subsequently execute requests for that patient's data.
Measure 2: §170.315(g)(8) - Application Access (data category request)	§170.315(g)(8) Application access — data category request	(i)(A) Respond to requests for patient data  (i)(B) Respond to requests for patient data categories associated with a specific date
Measure 1: §170.315(g)(7) - Application Access (Patient selection)	§170.315(g)(9) Application access — all data request	(i)(A) Respond to requests for patient data  (i)(B) Respond to requests for all patient data requests associated with a specific date

### Justification for Selected Measurement/Metric

Measurement/Metric	Justification
Measure 1: §170.315(g)(7) - Application Access (Patient selection)	Be able to receive a request with sufficient information to uniquely identify a patient and return a token that can be used by an application to subsequently execute requests for that patient's data.
Measure 2: §170.315(g)(8) - Application Access (data category request)	Be able to respond to categories requests of data that are subsets of the entire record including: Patient Demographics, Medications, Med Allergies, Lab Tests/Results, Procedures, etc., using the unique token within the specified timeframe.
Measure 3: §170.315(g)(9) - Application Access (all data request)	Be able to respond to full set of data requests for each data category using the unique token specified in the Common Clinical Data Set (CCDS) in a summary record within a specified timeframe.

### Testing Method(s)/Methodology(ies)

Measurement/Metric	Test Methodology
Measure 1: §170.315(g)(7) - Application Access (Patient selection)	<p>The user demonstrates that when the Health IT Module's identified API receives a request from another software component/service with enough information about a patient to identify that patient, the Health IT Module's API returns a token.</p> <p>PHR logs will be reviewed for API usage to determine the frequency used by patients for accessing their data through the API. Log files obtained during Real World Testing will be de-identified and used for analysis in several areas to validate the proper operation of the API for the calculation of the metric on the specific types of access requested. This test methodology will primarily test the conformance of the implementation.</p>
Measure 2: §170.315(g)(8) - Application Access (data category request)	<p>Using the Health IT Module's identified API functions (including the token generated as part of the "Application Access – patient selection" certification criterion at §170.315(g)(7)), the user demonstrates that one or more API routines responds to requests for categories of data that are subsets of the entire record including: Patient Demographics, Medications, Med Allergies, Lab Tests/Results, Procedures, etc., within a specified timeframe for the unique patient.</p> <p>PHR logs will be reviewed for API usage to determine the frequency used by patients for accessing their data through the API. Log files obtained during Real World Testing will be de-identified and used for analysis in several areas to validate the proper operation of the API for the calculation of the metric on the specific types of access requested. This test methodology will primarily test the conformance of the implementation.</p>



Measurement/Metric	Test Methodology
Measure 3: §170.315(g)(9) - Application Access (all data request)	<p>Using the Health IT Module's identified API functions (including the token generated as part of the "Application Access – patient selection" certification criterion at §170.315(g)(7)), the user demonstrates that one or more API routines responds to and returns the full set of data for each data category specified in the CCDS at one time in a summary record for the unique patient.</p> <p>PHR logs will be reviewed for API usage to determine the frequency used by patients for accessing their data through the API. Log files obtained during Real World Testing will be de-identified and used for analysis in several areas to validate the proper operation of the API for the calculation of the metric on the specific types of access requested. This test methodology will primarily test the conformance of the implementation.</p>

### Care Setting(s)

The IHS markets its CHIT in two major care settings (ambulatory and inpatient), which are defined as:

**Ambulatory Care Setting:** Ambulatory care settings include encounters with a health care provider (including covered contractors) in an organized clinic within an IHS facility where the patient or a personal representative (designated only to pick up prescriptions) is present (physically or telehealth) and services are not part of an inpatient stay, and require encounter record. A licensed, credentialed health care provider, or other provider qualified by the medical staff or facility administrator, must write a note in the health record.

**Inpatient Care Setting:** A patient admitted for inpatient services based on the standing, verbal, or written order by a physician or a licensed independent practitioner. Admission involves the occupancy of an adult or pediatric hospital bed or newborn infant bassinet and the maintenance of a hospital chart during observation, care, diagnosis, or treatment. If, after discharge, an inpatient returns to the hospital for admission, it is a separate admission. Adults without complaint or sickness who are at the hospital for the benefit of a hospitalized patient or for the convenience of the hospital are not inpatients.

Each measurement/metric within this RWTP will be executed/tested in the care setting(s) identified in the following table:

Measurement/Metric	Care Setting	Justification
Measure 1: §170.315(g)(7) - Application Access (Patient selection)	Ambulatory/Inpatient	Be able to receive a request with sufficient information to uniquely identify a patient and return a token that can be used by an application to subsequently execute requests for that patient's data for an ambulatory and inpatient setting.

Measurement/Metric	Care Setting	Justification
Measure 2: §170.315(g)(8) - Application Access (data category request)	Ambulatory/Inpatient	Be able to respond to categories of data that are subsets of the entire record including: Patient Demographics, Medications, Med Allergies, Lab Tests/Results, Procedures in ambulatory and inpatient setting for a specified timeframe.
Measure 3: §170.315(g)(9) - Application Access (all data request)	Ambulatory/Inpatient	Be able to respond to the full data request specified in the CCDS at one time in a summary record within an ambulatory and inpatient setting for a specified timeframe.

## Expected Outcomes

This section describes the expected outcomes from each measure listed in this RWTP. Participants will complete the Measurement/Metric Results column in detail, which will be included in as part of the RWT Results report.

Measurement/Metric	Expected Outcomes	Measurement/Metric Result
Measure 1: §170.315(g)(7) - Application Access (Patient selection)	The Health IT Module's API receives a request from the health IT developer's identified application for a specific patient ID or other token. The Health IT Module's API returns a specific token, which can be used by the identified application to subsequently execute requests for that patient's data. Error rates will be captured over time using the PHR application logs.	
Measure 2: §170.315(g)(8) - Application Access (data category request)	Using the token returned by the API as part of the §170.315(g)(7) response, the Health IT Module's API responds to and returns requests to categories of data that are subsets of the entire record including: Patient Demographics, Medications, Med Allergies, Lab Tests/Results, Procedures, etc., within a specified timeframe. Error rates will be captured over time using the PHR application logs.	
Measure 3: §170.315(g)(9) - Application Access (all data request)	Using the token returned by the API as part of the §170.315(g)(7) response, the Health IT Module's API responds to requests for "all patient data" and returns the full set of data requests for each data category specified in the CCDS in a summary record within a specified timeframe. Error rates will be captured over time using the PHR application logs.	

## Schedule of Key Milestones

This section includes a schedule of key milestones for this RWT effort.

**Note:** Since the IHS markets to two specific care settings, the care setting column may include one or both care settings. As a result, the milestones and dates will be the same regardless of the care setting.

Key Milestone	Care Setting	Date/Timeframe
Initial outreach for site participation	Ambulatory/Inpatient	October 15, 2021
Release of documentation for the Real-World Testing to be provided to authorized representatives/participants and providers. This includes surveys, specific instructions on what to look for, how to record issues encountered, and Customer Agreements.	Ambulatory/Inpatient	December 15, 2021
Begin collection of information as laid out by the plan for the period.	Ambulatory/Inpatient	January 5, 2022
Planned System updates to allow for collection of data any updates.	Ambulatory/Inpatient	Quarterly, 2022, as needed
Follow-up with authorized representatives/participants and providers on a regular basis to understand any issues arising with the data collection.	Ambulatory/Inpatient	Quarterly, 2022
End of Real-World Testing period/participants submit final collection of all data for analysis as real-world testing results to IHS.	Ambulatory/Inpatient	December 15, 2022
Analysis and real-world testing results report creation.	Ambulatory/Inpatient	January 12, 2023
Real-world testing results submission to ACB	Ambulatory/Inpatient	January 15, 2023

## Attestation

This RWTP is complete and satisfies the ONC CMoC requirement for RWT. The IHS approves this plan is completed and approved for execution for its RWT participants.

Authorized Representative	Representative Details
Authorized Representative Name:	Jeanette Kompkoff
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# Health IT Certification Program

The Office of the National Coordinator for Health Information Technology

Authorized Representative	Representative Details
<b>Authorized Representative Signature:</b>	On behalf of Jeanette Kompkoff
<b>Date:</b>	12/07/2021