



Indian Health Service (IHS)

Resource and Patient Management System | Electronic  
Health Record

**Patient Care Coordination**

Real World Test Results & Report 2022

January 13, 2023

## Contents

<b>GENERAL INFORMATION</b> .....	4
USE CASE 1: §170.315(b)(1) TRANSITIONS OF CARE .....	6
SUMMARY OF TESTING METHODS AND KEY FINDINGS.....	6
STANDARDS UPDATES (INCLUDING STANDARDS VERSION ADVANCEMENT PROCESS (SVAP) AND UNITED STATES CORE DATA FOR INTEROPERABILITY (USCDI)).....	6
CARE SETTING(S).....	7
METRICS AND OUTCOMES.....	7
Chart 1: Transition of Care Sent and Received.....	8
Chart 2: Transition of Care Sent and Received (Bar Graph View).....	8
USE CASE 2: §170.315(b)(2) CLINICAL INFORMATION RECONCILIATION AND INCORPORATION.....	9
SUMMARY OF TESTING METHODS AND KEY FINDINGS.....	9
STANDARDS UPDATES (INCLUDING STANDARDS VERSION ADVANCEMENT PROCESS (SVAP) AND UNITED STATES CORE DATA FOR INTEROPERABILITY (USCDI)).....	9
CARE SETTING(S).....	9
METRICS AND OUTCOMES.....	10
Chart 3: Clinical Information Reconciliation.....	10
USE CASE 3: §170.315(b)(3) ELECTRONIC PRESCRIBING .....	11
SUMMARY OF TESTING METHODS AND KEY FINDINGS.....	11
STANDARDS UPDATES (INCLUDING STANDARDS VERSION ADVANCEMENT PROCESS (SVAP) AND UNITED STATES CORE DATA FOR INTEROPERABILITY (USCDI)).....	11
CARE SETTING(S).....	11
METRICS AND OUTCOMES.....	11
Chart 4: Electronic Prescribing.....	13
USE CASE 4: §170.315(b)(6) DATA EXPORT – SINGLE PATIENT.....	14
CHANGES TO ORIGINAL PLAN .....	14
SUMMARY OF TESTING METHODS AND KEY FINDINGS.....	14
STANDARDS UPDATES (INCLUDING STANDARDS VERSION ADVANCEMENT PROCESS (SVAP) AND UNITED STATES CORE DATA FOR INTEROPERABILITY (USCDI)).....	14
CARE SETTING(S).....	14
METRICS AND OUTCOMES.....	15
Chart 5: Data Export Single.....	16
USE CASE 5: §170.315(b)(6) Data Export – Multiple Patient – Ambulatory/Inpatient).....	17
CHANGES TO ORIGINAL PLAN .....	17
SUMMARY OF TESTING METHODS AND KEY FINDINGS.....	17
STANDARDS UPDATES (INCLUDING STANDARDS VERSION ADVANCEMENT PROCESS (SVAP) AND UNITED	



STATES CORE DATA FOR INTEROPERABILITY (USCDI)) ..... 17

CARE SETTING(S) ..... 17

METRICS AND OUTCOMES ..... 18

    Chart 6: Data Export Multiple Patients ..... 19

USE CASE 6: §170.315(e)(1) VIEW, DOWNLOAD, TRANSMIT ..... 20

SUMMARY OF TESTING METHODS AND KEY FINDINGS ..... 20

STANDARDS UPDATES (INCLUDING STANDARDS VERSION ADVANCEMENT PROCESS (SVAP) AND UNITED STATES CORE DATA FOR INTEROPERABILITY (USCDI)) ..... 20

CARE SETTING(S) ..... 20

METRICS AND OUTCOMES ..... 20

    Chart 7: View, Download and Transmit ..... 21

USE CASE 7: ELECTRONIC EXCHANGE - §170.315(h)(1) DIRECT PROJECT ..... 22

SUMMARY OF TESTING METHODS AND KEY FINDINGS ..... 22

STANDARDS UPDATES (INCLUDING STANDARDS VERSION ADVANCEMENT PROCESS (SVAP) AND UNITED STATES CORE DATA FOR INTEROPERABILITY (USCDI)) ..... 22

CARE SETTING(S) ..... 22

METRICS AND OUTCOMES ..... 23

    Chart 8: Direct Project (Electronic Exchange) ..... 23

KEY MILESTONES ..... 24

ATTESTATION ..... 25

## GENERAL INFORMATION

The information in this RWT results report is organized by specific criteria included in the **Patient Care Coordination** category. This report contains sections, which explain/clarify how the RWT approach addressed each required element in the Real World Testing Plan. Use cases were executed by our Test sites utilizing the 2015 Resource and Patient Management System (RPMS) Electronic Health Record (EHR) at their respective care settings. Measures and metrics were gathered related to each use case scenario to demonstrate successful interoperability and use of the 2015 RPMS EHR.

<b>Plan Report ID Number:</b>	20211111IND
<b>Developer Name:</b>	The Indian Health Service
<b>Product Name</b>	Resource and Patient Management System Electronic Health Record (RPMS Suite (BCER))
<b>Version Number</b>	BCER v6.1 (current), v4.1, v5.0 and 6.0 (previous)
<b>Certified Health IT Product List (CHPL) ID</b>	15.02.05.1673.RPMS.01.04.1.220302 (current) 15.02.02.1673.A116.02.03.1.211001 (previous)
<b>Developer Real World Testing Plan and Results Page URL</b>	<a href="https://www.ihs.gov/promotinginteroperability/certificationoverview/real-world-testing/">https://www.ihs.gov/promotinginteroperability/certificationoverview/real-world-testing/</a>

IHS has combined similar criterion that falls within a defined set of clinical categories: Care Coordination, Patient Engagement, and Electronic Exchange referred to as the Patient Care Coordination category, which includes: §170.315(b)(1) Transitions of Care, §170.315(b)(2) Clinical Information Reconciliation and Incorporation, §170.315(b)(3) electronic prescribing, §170.315(b)(6) Data Export, §170.315(e)(1) View, Download and Transmit to 3rd party, §170.315(h)(1) Direct Project.

Patient Care Coordination is the deliberate organization of patient care activities between two or more participants (including the patient) involved in a patient's care to facilitate the appropriate delivery of health care services. Organizing care involves the marshaling of personnel and other resources needed to carry out all required patient care activities and is often managed by the exchange of information among participants responsible for different aspects of care. In addition, these activities allow doctors, nurses, pharmacists, other healthcare providers and patients to appropriately access and securely share a patient's vital medical information, electronically, improving the speed, quality, safety, and cost of patient care.

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

- (b)(1) Generate and Send a Transition of Care document for a patient to a referring provider via RPMS Direct Messaging.
- (b)(1) Receive a Transition of Care document for a patient from a referring provider via RPMS Direct Secure Messaging.
- (b)(2) Import and reconcile information from other facilities via the Transition of Care document or from the patient or caregiver to ensure all relevant information is available for the care of the patient.
- (b)(3) How electronically prescribed medications are sent and received to treat specific diagnosis
- (b)(6) How users generate single and multiple patient Data Exports
- (e)(1) Patients and their authorized representatives can View, Download, and Transmit data for a specified timeframe via the PHR.
- (h)(1) Send and Receive health information to/from a 3rd party

**USE CASE 1: §170.315(b)(1) TRANSITIONS OF CARE**

IHS has developed an electronic health record system to ensure the timely availability of patient information within an ambulatory and Inpatient setting. This Certified Health IT Module is for use in situations where documentation needs to be coordinated between providers within and outside of a healthcare organization. The shared documentation includes the creation of sending and receiving of standardized transitions of care (ToC) documents, which include the United States Core Data for Interoperability (USCDI) and the Common Clinical Data Set which are shared between organizations using the Direct project SMTP protocol technology.

**SUMMARY OF TESTING METHODS AND KEY FINDINGS**

*The RWT method was to execute the functions users performed to demonstrate interoperability for the following activities:*

- (b)(1) Generate and Send a Transition of Care document for a patient to a referring provider via RPMS Direct Messaging.
- (b)(1) Receive a Transition of Care document for a patient from a referring provider via RPMS Direct Secure Messaging.
- (b)(1) Display human readable version of Transition of Care document

System logs were reviewed to determine the frequency and the transport mechanism used by providers for sending/receiving transitions of care using the Direct protocols. These system logs were used to validate the proper operation of the transport mechanisms and for the calculation of the metric. The RWT methodology demonstrated the conformance of the system. As part of the RWT effort for CY 2022, no non-conformities were discovered for this criterion.

**STANDARDS UPDATES (INCLUDING STANDARDS VERSION ADVANCEMENT PROCESS (SVAP) AND UNITED STATES CORE DATA FOR INTEROPERABILITY (USCDI))**

This criterion was certified with voluntary SVAP or USCDI standards. IHS was certified to USCDI v1 Standard effective 10/01/22.

<b>Standard (and version)</b>	§ 170.213 USCDI v1
<b>Updated certification criteria and associated product</b>	(b)(1): Transitions of Care
<b>CHPL Product Number</b>	15.02.05.1673.RPMS.01.04.1.220302
<b>Conformance measure</b>	Measure 1: §170.315(b)(1) Information Sharing

**CARE SETTING(S)**

This criterion was tested for both ambulatory and inpatient settings. The testing was done to obtain one metric that included interoperability for both settings.

**METRICS AND OUTCOMES**

IHS is a Federal Health IT developer that serves Federal, Tribal, and Urban Health Care facilities. Deployment and implementation of the certified 2015 RPMS EHR is verified utilizing IHS Certified Electronic Record Checker (BCER). The verification of either BCER v4.1, 5.0 or 6.0 ensures that our volunteered testing facilities are:

1. Compliant with the certification criteria, including the required technical standards and vocabulary code sets;
2. Exchanging electronic health information (EHI) in the care and practice settings for which it is marketed for use; and/or,
3. EHI is received by and used in the certified health IT.

Measurement /Metric	Associated Criterion(a)	Relied Upon Software	Outcomes	Challenges Encountered
Measure 1: §170.315(b)(1) Information Sharing	§170.315(b)(1) Transitions of Care (ToC)  (i)(A) Send transition of care/referral summaries	N/A	For CY 2022, there was a low adoption of the functionality across our four RWT sites representing both ambulatory and inpatient. Eight transitions of care documents were sent via Direct, which was an expected outcome due to the low adoption of functionality.	Low adoption of functionality across end-users. This was to be expected as the majority of care is given inside the IHS ecosystem.
Measure 1: §170.315(b)(1) Information Sharing	§170.315(b)(1) Transitions of Care (ToC)  (i)(B) Receive transition of care/referral summaries	N/A	For CY 2022, transitions of care documents were received into RPMS EHR via Direct. This is common and expected results among IHS facilities.	N/A
Measure 1: §170.315(b)(1) Information Sharing	§170.315(b)(1) Transitions of Care (ToC)  (ii)(B) Display human-readable version of the ToC	N/A	The RPMS Direct system is designed to view ToCs in the message body when selected. Therefore, for CY 2022 an assumption can be made that the 8,754 received ToC messages equal the number of ToCs that are displayed in a human-readable format.	N/A

Chart 1: Transition of Care Sent and Received

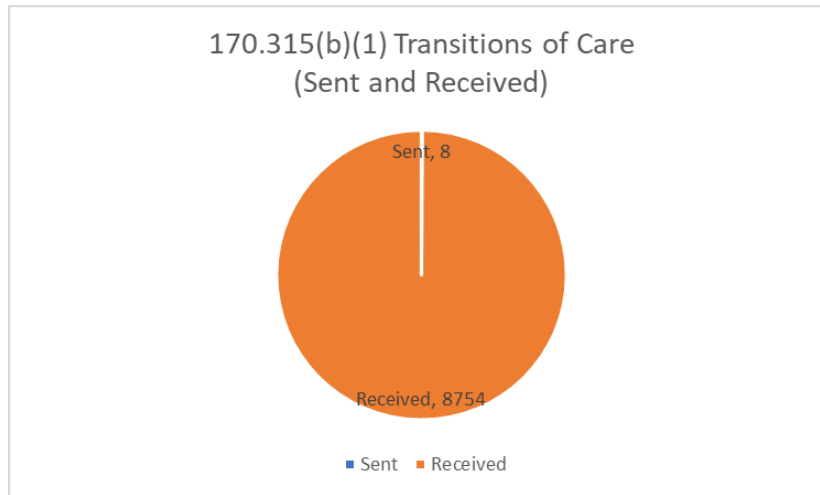
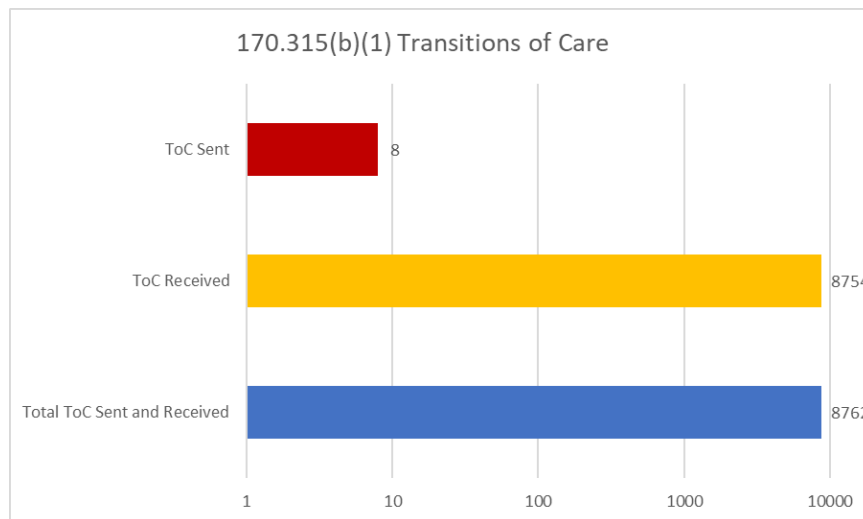


Chart 2: Transition of Care Sent and Received (Bar Graph View)





**USE CASE 2: §170.315(b)(2) CLINICAL INFORMATION RECONCILIATION AND INCORPORATION**

IHS has developed an electronic health record system to ensure the timely reconciliation of patient information within an ambulatory and inpatient setting. This Certified Health IT Module is for use in situations where documentation needs to be coordinated between providers within and outside of a healthcare organization. The shared documentation includes transitions of care documents, which requires specific health information, such as medications, allergies, and problems to be reconciled promptly to provide better patient care.

**SUMMARY OF TESTING METHODS AND KEY FINDINGS**

The RWT method for this Patient Care Coordination Category executed the functions users performed to demonstrate interoperability for the following activity:

- (b)(2) Import and reconcile information from other facilities via the Transition of Care document or from the patient or caregiver to ensure all relevant information is available for the care of the patient.

System logs were reviewed for each period to determine the frequency of use. The system log files validated the proper operation of the export and import of the Clinical Information Reconciliation (CIR) tool. This test methodology and approach demonstrated conformance with the 2015 RPMS EHR.

**STANDARDS UPDATES (INCLUDING STANDARDS VERSION ADVANCEMENT PROCESS (SVAP) AND UNITED STATES CORE DATA FOR INTEROPERABILITY (USCDI))**

This criterion was certified with voluntary SVAP or USCDI standards. IHS was certified to USCDI v1 Standard effective 10/01/22.

<b>Standard (and version)</b>	§ 170.213 USCDI v1
<b>Updated certification criteria and associated product</b>	(b)(2): Clinical Information Reconciliation and Incorporation
<b>CHPL Product Number</b>	15.02.05.1673.RPMS.01.04.1.220302
<b>Conformance measure</b>	Measure 2: §170.315(b)(2) Information Reconciliation

**CARE SETTING(S)**

This criterion was tested for both ambulatory and inpatient settings. The testing was done to obtain one metric that included interoperability for both settings.

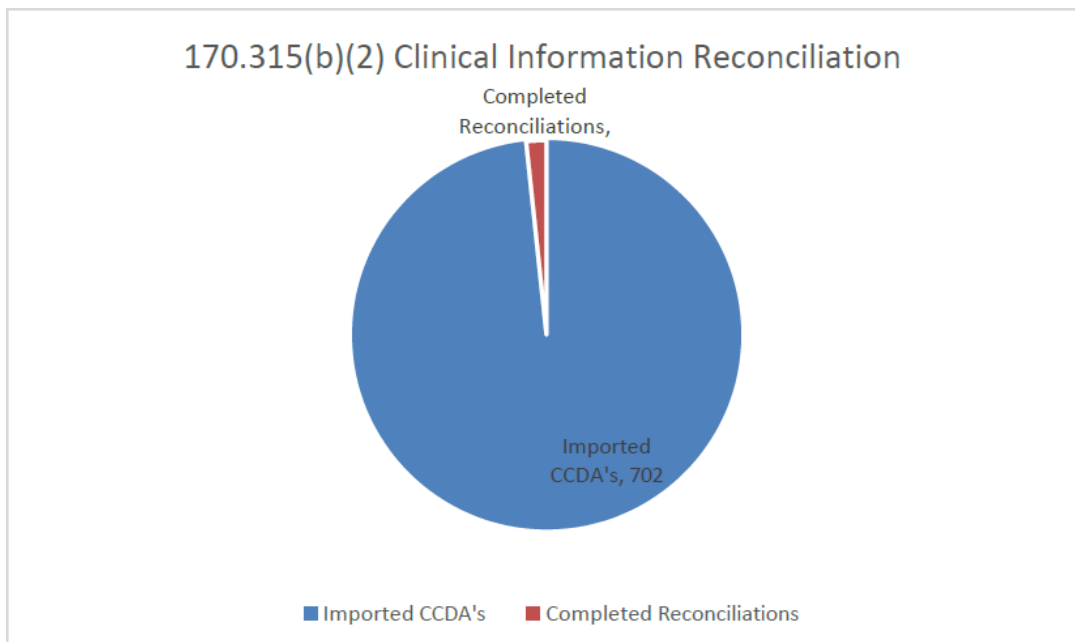
**METRICS AND OUTCOMES**

IHS is a Federal Health IT developer that serves Federal, Tribal, and Urban Health Care facilities. Deployment and implementation of the certified 2015 RPMS EHR is verified utilizing IHS Certified Electronic Record Checker (BCER). The verification of either BCER v4.1, 5.0 or 6.0 ensures that our volunteered testing facilities are:

1. Compliant with the certification criteria, including the required technical standards and vocabulary code sets;
2. Exchanging electronic health information (EHI) in the care and practice settings for which it is marketed for use; and/or,
3. EHI is received by and used in the certified health IT.

Measurement/ Metric	Associated Criterion(a)	Relied Upon Software	Outcomes	Challenges Encountered
Measure 2: §170.315(b)(2) Information Reconciliation	§170.315(b)(2) Clinical information reconciliation and incorporation  (ii) Manually match CCDA with patient	N/A	12 Clinical Information Reconciliations completed utilizing the functionality of RPMS EHR (CIR Button.) These were the expected results from our four RWT sites representing both ambulatory and inpatient.	The Clinical Information Reconciliation Tool was created to meet certification standards. There was extremely low usage of the CIR button due to lengthy workflow processes and training. IHS is working on conducting additional training and analyzing workflow to improve and increase the usage of the CIR tool.

Chart 3: Clinical Information Reconciliation



**USE CASE 3: §170.315(b)(3) ELECTRONIC PRESCRIBING**

The IHS has developed an electronic health record system to ensure prescriptions can be sent/received electronically to/from participating pharmacies. This Certified Health IT Module is for transmitting electronic prescriptions using the NCPDP NIST standard via the NCPDP v2017071 network. The transmissions of these electronic prescriptions include several message types between the IHS and participating pharmacies.

**SUMMARY OF TESTING METHODS AND KEY FINDINGS**

The justification for this Patient Care Coordination Category RWT approach is to execute the functions users perform to demonstrate interoperability for the following activities:

- b)(3) How electronically prescribed medications are sent and received to treat specific diagnosis

System logs were reviewed to determine the frequency and the transport mechanism used by providers for sending/receiving electronically prescribed using the NCPDP network. System log files validated the proper operation of the transport mechanisms and input for the calculation of the metric on the specific types of transport mechanisms used. The test methodology demonstrated conformance with the 2015 RPMS EHR.

**STANDARDS UPDATES (INCLUDING STANDARDS VERSION ADVANCEMENT PROCESS (SVAP) AND UNITED STATES CORE DATA FOR INTEROPERABILITY (USCDI))**

*SVAP and/or USCDI were not applicable for this criterion.*

Standard (and version)	N/A
Updated certification criteria and associated product	N/A
CHPL Product Number	N/A
Conformance measure	N/A

**CARE SETTING(S)**

This criterion was tested for the ambulatory setting.

**METRICS AND OUTCOMES**

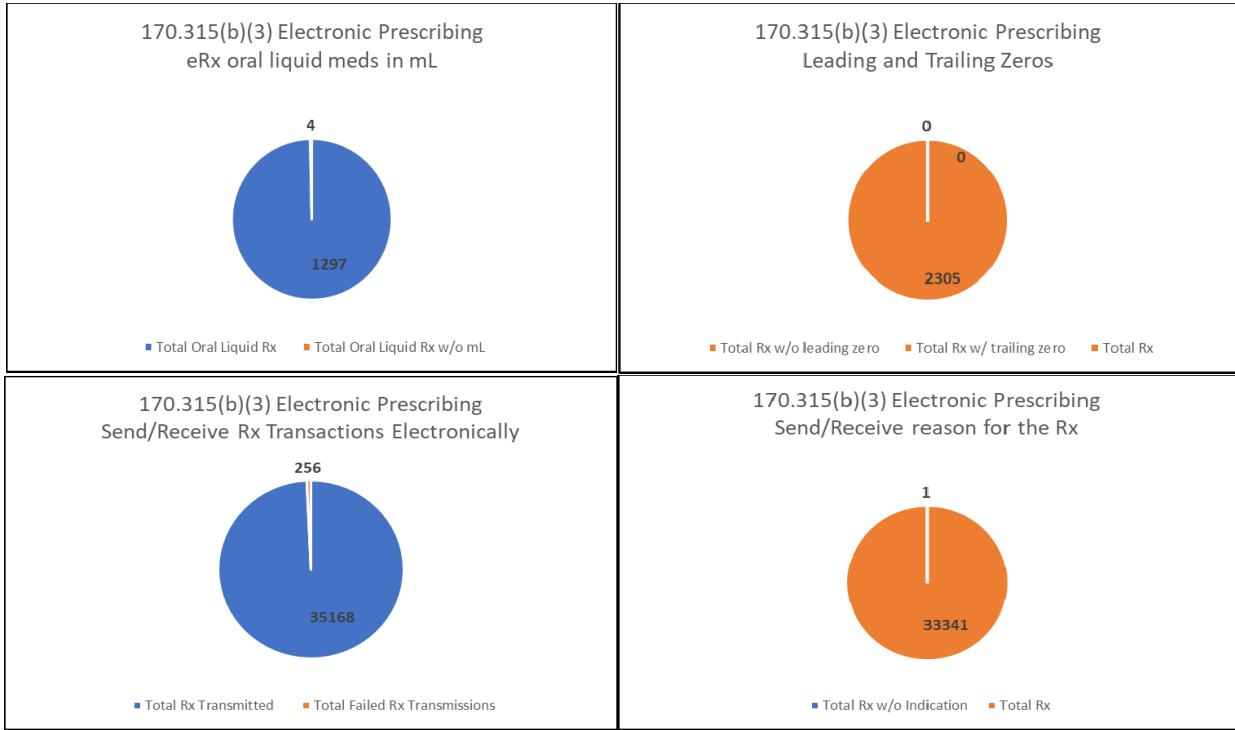
IHS is a Federal Health IT developer that serves Federal, Tribal, and Urban Health Care facilities. Deployment and implementation of the certified 2015 RPMS EHR is verified utilizing IHS Certified Electronic Record Checker (BCER). The verification of either BCER v4.1, 5.0 or 6.0 ensures that our volunteered testing facilities are:

1. Compliant with the certification criteria, including the required technical standards and vocabulary code sets;
2. Exchanging electronic health information (EHI) in the care and practice settings for

- which it is marketed for use; and/or,  
3. EHI is received by and used in the certified health IT

Measurement /Metric	Associated Criterion(a)	Relied Upon Software	Outcomes	Challenges Encountered
Measure 3: §170.315(b)(3) e-Prescribe Medication	§170.315(b)(3) Electronic prescribing  (ii)(A) Send/Receive prescription transactions electronically	N/A	35,168 transmitted prescriptions with 256 failed transmissions. The percentage of failure was .73, which is normal and an expected outcome amongst the three RWT sites that represented ambulatory and inpatient. The failed transmissions were all successfully transmitted with interventions from the sites following appropriate workflow protocols. These failures were not related to a non-conformity with RPMS EHR.	N/A
Measure 3: §170.315(b)(3) e-Prescribe Medication	§170.315(b)(3) Electronic prescribing  (ii)(C) Send/Receive reason for the ePrescription	N/A	33,341 Total electronic prescriptions with a diagnosis/indication and one were transmitted without a diagnosis/indication. This was within a minimal range of error.	N/A
Measure 3: §170.315(b)(3) e-Prescribe Medication	§170.315(b)(3) Electronic Prescribing  (ii)(E) ePrescribed oral liquid meds in mL	N/A	1,297 prescriptions for Oral liquid medications with ML dosage, 4 were ordered without an “mL”. This was within a minimal range of error.	N/A
Measure 3: §170.315(b)(3) e-Prescribe Medication	§170.315(b)(3) Electronic prescribing  (ii)(F) Leading and Trailing Zeros	N/A	There were zero electronic prescriptions with decimal dosages containing no leading zero out of 2,305 electronic prescriptions. No errors were captured for 2022	N/A

Chart 4: Electronic Prescribing



**USE CASE 4: §170.315(b)(6) DATA EXPORT – SINGLE PATIENT**

The IHS has developed an electronic health record system to ensure the timely availability of patient information within an ambulatory and inpatient setting. This Certified Health IT Module is for use in situations where documentation needs to be coordinated between providers within and outside of a healthcare organization or ported from one certified health IT system to another. The shared documentation includes the export of a single patient healthcare record in real time.

**CHANGES TO ORIGINAL PLAN**

IHS sought out sites to participate in RWT efforts. All sites that participated were volunteers. Numerous efforts were made for recruiting sites, including announcements in IHS Area meetings, ListServ announcements, and direct contact with sites. Although our efforts were extensive, we received no participation from a limited number of sites. All our participating sites had fully deployed the 2015 RPMS EHR and the complete functionality to demonstrate this criterion, however, a Real World Scenario did not occur during Calendar Year 2022 at any of the participating RWT sites. Therefore, this criterion falls into “Low Adoption Capabilities” and was tested on the developer database with synthetic data.

**SUMMARY OF TESTING METHODS AND KEY FINDINGS**

The RWT Method for this Patient Care Coordination Category RWT approach is to execute the functions users perform to demonstrate interoperability for the following activity:

- (b)(6) How users generate single and multiple patient Data Exports

System logs were reviewed to determine the frequency of use. Log files obtained validated the proper operation of the export. This test methodology demonstrated conformance with the criterion.

**STANDARDS UPDATES (INCLUDING STANDARDS VERSION ADVANCEMENT PROCESS (SVAP) AND UNITED STATES CORE DATA FOR INTEROPERABILITY (USCDI))**

*SVAP and/or USCDI were not applicable for this criterion.*

<b>Standard (and version)</b>	N/A
<b>Updated certification criteria and associated product</b>	N/A
<b>CHPL Product Number</b>	N/A
<b>Conformance measure</b>	N/A

**CARE SETTING(S)**

Tested on the certification data that addresses both inpatient and ambulatory settings.

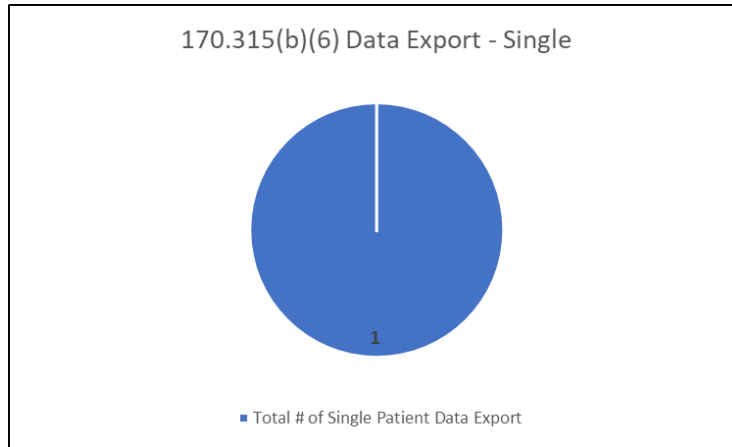
**METRICS AND OUTCOMES**

IHS is a Federal Health IT developer that serves Federal, Tribal, and Urban Health Care facilities. Deployment and implementation of the certified 2015 RPMS EHR is verified utilizing IHS Certified Electronic Record Checker (BCER). The verification of either BCER v4.1, 5.0 or 6.0 ensures that our volunteered testing facilities are:

1. Compliant with the certification criteria, including the required technical standards and vocabulary code sets;
2. Exchanging electronic health information (EHI) in the care and practice settings for which it is marketed for use; and/or,
3. EHI is received by and used in the certified health IT.

Measurement /Metric	Associated Criterion(a)	Relied Upon Software	Outcomes	Challenges Encountered
Measure 4: §170.315(b)(6) Single Patient Export	§170.315(b)(6) Data Export  (ii) Create an export summary for a single patient	N/A	1 single patient was exported to show conformance and ability with exporting a summary for a single patient with no errors.	N/A
Measure 4: §170.315(b)(6) Single Patient Export	§170.315(b)(6) Data Export  (iii)(A) User can set the date range for export	N/A	Performing an export requires the user to enter a specific date or date range. Therefore, if an export already exists in the export directory or is performed, this requirement is met.	N/A
Measure 4: §170.315(b)(6) Single Patient Export	§170.315(b)(6) Data Export  (iii)(B) Export in real-time	N/A	Although a user can perform an export and queue to run at a later date, for RWT if multiple exports already exist in the export directory, this requirement is met	N/A
Measure 4: §170.315(b)(6) Single Patient Export	§170.315(b)(6) Data Export  (iv) Save export	N/A	Performing an export requires the user to enter the export directory for saving. Therefore, if an export already exists in the export directory or is performed, this requirement is met.	N/A

Chart 5: Data Export Single





**USE CASE 5: §170.315(b)(6) Data Export – Multiple Patient – Ambulatory/Inpatient)**

The IHS has developed an electronic health record system to ensure the timely availability of patient information within an ambulatory and inpatient setting. This Certified Health IT Module is for use in situations where documentation needs to be coordinated between providers within and outside of a healthcare organization or ported from one certified health IT system to another. The shared documentation includes the export of multiple patient healthcare records for a specific period date and time.

**CHANGES TO ORIGINAL PLAN**

IHS sought out sites to participate in RWT efforts. All sites that participated were volunteers. Numerous efforts were made for recruiting sites including announcements in IHS Area meetings, ListServ announcements, and direct contact with sites. Although our efforts were extensive, we received no participation with a limited number of sites. All of our participating sites had fully deployed the 2015 RPMS EHR and the complete functionality to demonstrate this criterion, however, a Real World Scenario did not occur during Calendar Year 2022 at any of the participating RWT sites. Therefore, this criterion falls into “Low Adoption Capabilities” and was tested on the developer database with synthetic data.

**SUMMARY OF TESTING METHODS AND KEY FINDINGS**

The RWT Method for this Patient Care Coordination Category RWT approach is to execute the functions users perform to demonstrate interoperability for the following activities:

- (b)(6) How users generate single and multiple patient Data Exports

System logs were reviewed to determine the frequency of use. System log files obtained during Real World Testing validated the proper operation of the export. This test methodology demonstrated the conformance of the system.

**STANDARDS UPDATES (INCLUDING STANDARDS VERSION ADVANCEMENT PROCESS (SVAP) AND UNITED STATES CORE DATA FOR INTEROPERABILITY (USCDI))**

*SVAP and/or USCDI were not applicable for this criterion.*

Standard (and version)	N/A
Updated certification criteria and associated product	N/A
CHPL Product Number	N/A
Conformance measure	N/A

**CARE SETTING(S)**

Tested on the certification data that addresses both inpatient and ambulatory settings.

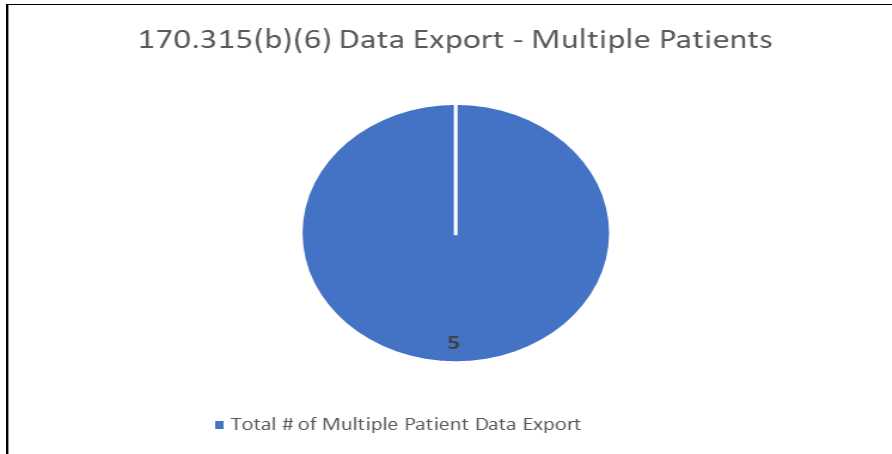
## METRICS AND OUTCOMES

IHS is a Federal Health IT developer that serves Federal, Tribal, and Urban Health Care facilities. Deployment and implementation of the certified 2015 RPMS EHR is verified utilizing IHS Certified Electronic Record Checker (BCER). The verification of either BCER v4.1, 5.0 or 6.0 ensures that our volunteered testing facilities are:

1. Compliant with the certification criteria, including the required technical standards and vocabulary code sets;
2. Exchanging electronic health information (EHI) in the care and practice settings for which it is marketed for use; and/or,
3. EHI is received by and used in the certified health IT.

Measurement /Metric	Associated Criterion(a)	Relied Upon Software	Outcomes	Challenges Encountered
Measure 5: §170.315(b)(6) Multiple Patients Export	§170.315(b)(6) Data Export  (ii) Create an export summary for multiple patients	N/A	5 patients were exported successfully to show conformance and ability with exporting a summary for multiple patients with no errors.	N/A
Measure 5: §170.315(b)(6) Multiple Patients Export	§170.315(b)(6) Data Export  (iii)(A) User can set the date range for export	N/A	Performing an export requires the user to enter a specific date or date range. Therefore, if an export already exists in the export directory or is performed, this requirement is met.	N/A
Measure 5: §170.315(b)(6) Multiple Patients Export	§170.315(b)(6) Data Export  (iii)(B) Export on a specific date/time	N/A	Although a user can perform an export and queue to run at a later date, for RWT if multiple exports already exist in the export directory, this requirement is met	N/A
Measure 5: §170.315(b)(6) Multiple Patients Export	§170.315(b)(6) Data Export  (iv) Save export	N/A	Performing an export requires the user to enter the export directory for saving. Therefore, if an export already exists in the export directory or is performed, this requirement is met.	N/A

Chart 6: Data Export Multiple Patients



**USE CASE 6: §170.315(e)(1) VIEW, DOWNLOAD, TRANSMIT**

The IHS has developed a web application called the Personal Health Record (PHR), where patients (and their authorized representative) can maintain and manage their health information in a private, secure, and confidential environment within an Ambulatory and/or Inpatient setting. The health IT must allow patients (and their authorized representatives) to view, download, and transmit their health information within a patient (or authorized representative) specified timeframe.

**SUMMARY OF TESTING METHODS AND KEY FINDINGS**

The RWT for this Patient Care Coordination Category RWT approach is to execute the functions users perform to demonstrate interoperability for the following activities:

- (e)(1) Patients and their authorized representatives can View, Download, and Transmit data for a specified timeframe via the PHR.

PHR logs were reviewed for each period to determine the frequency of patient (or authorized representative) PHR activity/use. PHR logs validated the proper operation of view, download, and transmit. This test methodology demonstrated the conformance of the 2015 RPMS EHR.

**STANDARDS UPDATES (INCLUDING STANDARDS VERSION ADVANCEMENT PROCESS (SVAP) AND UNITED STATES CORE DATA FOR INTEROPERABILITY (USCDI))**

This criterion was certified with voluntary SVAP or USCDI standards

<b>Standard (and version)</b>	§ 170.213 USCDI v1
<b>Updated certification criteria and associated product</b>	(e)(1): View, Download, and Transmit to 3rd Party
<b>CHPL Product Number</b>	15.02.05.1673.RPMS.01.04.1.220302
<b>Conformance measure</b>	Measure 6: §170.315(e)(1) View, Download, Transmit

**CARE SETTING(S)**

This criterion was tested for both ambulatory and inpatient settings. The testing was done to obtain one metric that included interoperability for both settings.

**METRICS AND OUTCOMES**

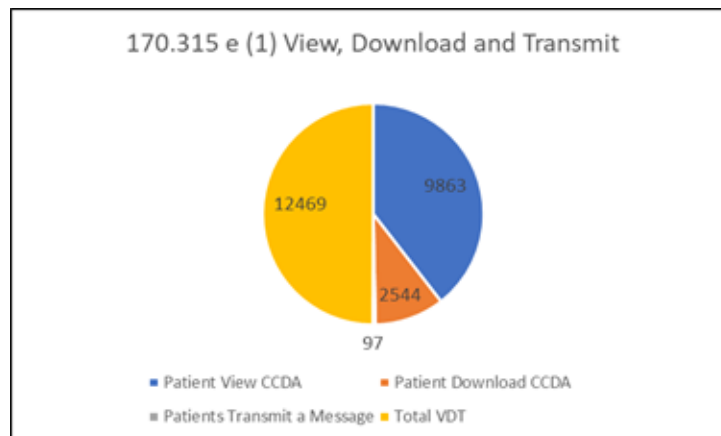
IHS is a Federal Health IT developer that serves Federal, Tribal, and Urban Health Care facilities. Deployment and implementation of the certified 2015 RPMS EHR is verified utilizing IHS Certified Electronic Record Checker (BCER). The verification of either BCER v4.1, 5.0 or 6.0 ensures that our volunteered testing facilities are:

1. Compliant with the certification criteria, including the required technical standards and vocabulary code sets;
2. Exchanging electronic health information (EHI) in the care and practice settings for which it is marketed for use; and/or,

3. EHI is received by and used in the certified health IT.

Measurement/ Metric	Associated Criterion(a)	Relied Upon Software	Outcomes	Challenges Encountered
Measure 6: §170.315(e)(1) View, Download, Transmit	§170.315(e)(1) View, download and transmit  (i)(A) View an ambulatory summary or inpatient summary	N/A	9,863 patients or their authorized representative successfully accessed and viewed their Health Information via the Personal Health Record.  Three facilities participated in this testing that represented both ambulatory and inpatient.	N/A
Measure 6: §170.315(e)(1) View, Download, Transmit	§170.315(e)(1) View, download and transmit  (i)(B) Download an ambulatory summary or inpatient summary	N/A	2,544 patients or their authorized representative successfully downloaded their health information.	N/A
Measure 6: §170.315(e)(1) View, Download, Transmit	§170.315(e)(1) View, download and transmit  (i)(C) Transmit a message using a secure or unsecured method	N/A	97 patients or authorized representative successfully transmitted their health information via an encrypted secure (Direct) or unsecured (SMTP) method for a timeframe specified by a patient or their authorized representative using their PHR	N/A
Measure 6: §170.315(e)(1) View, Download, Transmit	§170.315(e)(1) View, download and transmit  (i)(D) Timeframe Selection	N/A	After logging into the PHR, the patient or authorized representative can select a date range for encounters, before viewing, downloading, or transmitting their health information.	N/A

Chart 7: View, Download and Transmit



**USE CASE 7: ELECTRONIC EXCHANGE - §170.315(h)(1) DIRECT PROJECT**

IHS has developed a secure email system called the RPMS Direct Secure Messaging System (RPMS Direct) in which users can electronically transmit (send and receive) health information to a third party. This application was developed using the Direct project, in which the IHS serves as its own HISP and is accredited by both EHNAC and DirectTrust proving the system adheres to the DirectTrust implementation standards.

**SUMMARY OF TESTING METHODS AND KEY FINDINGS**

The RWT approach for this Patient Care Coordination Category RWT approach is to execute the functions users perform to demonstrate interoperability for the following activities:

- (h)(1) Send and Receive health information to/from a 3rd party

Verification of the identified health information is successfully transmitted to a 3rd party using the RPMS Direct system, in accordance with specified standards. The tester verifies that health information can be sent/received successfully, and all sent messages to a DirectTrust partner returns a Message Disposition Notification (MDN). RPMS Direct Secure Messaging system logs will be used to determine the frequency of transmitted messages. Log files obtained during Real World Testing will be de-identified and used for analysis in several areas to validate the proper operation of view, download, and transmit. This test methodology will primarily test the conformance of the implementation.

**STANDARDS UPDATES (INCLUDING STANDARDS VERSION ADVANCEMENT PROCESS (SVAP) AND UNITED STATES CORE DATA FOR INTEROPERABILITY (USCDI))**

*SVAP and/or USCDI were not applicable for this criterion.*

<b>Standard (and version)</b>	N/A
<b>Updated certification criteria and associated product</b>	N/A
<b>CHPL Product Number</b>	N/A
<b>Conformance measure</b>	N/A

**CARE SETTING(S)**

This criterion was tested for both ambulatory and inpatient settings. The testing was done to obtain one metric that included interoperability for both settings.

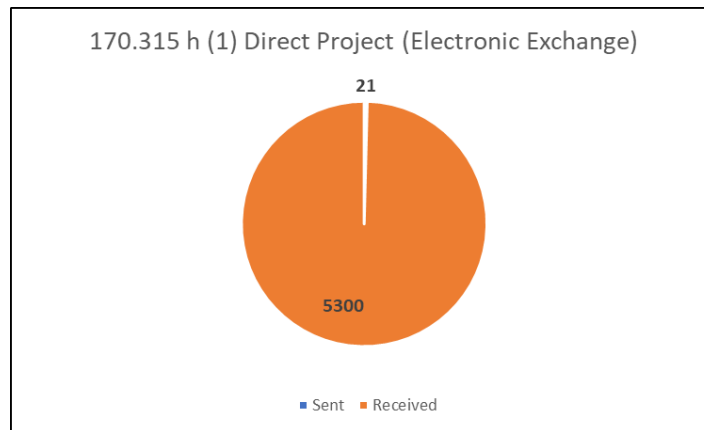
**METRICS AND OUTCOMES**

IHS is a Federal Health IT developer that serves Federal, Tribal, and Urban Health Care facilities. Deployment and implementation of the certified 2015 RPMS EHR is verified utilizing IHS Certified Electronic Record Checker (BCER). The verification of either BCER v4.1, 5.0 or 6.0 ensures that our volunteered testing facilities are:

1. Compliant with the certification criteria, including the required technical standards and vocabulary code sets.
2. Exchanging electronic health information (EHI) in the care and practice settings for which it is marketed for use; and/or,
3. EHI is received by and used in the certified health IT.

Measurement/Metric	Associated Criterion(a)	Relied Upon Software	Outcomes	Challenges Encountered
Measure 7: §170.315(h)(1) Electronic Exchange (Direct Project)	§170.315(h)(1) Direct Project  The Health IT can electronically transmit (send and receive) health information to a 3rd party using the RPMS Direct Secure Messaging System.	N/A	The RPMS Direct Secure Messaging System Received 5,321 Direct Secure Messages sent and received amongst four participating RWT sites.	N/A

Chart 8: Direct Project (Electronic Exchange)



## KEY MILESTONES

Real World Testing Key Milestones were met as indicated below.

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 31, 2022
Analysis and Real World Testing result report creation.	Ambulatory/Inpatient	January 12, 2023
Real World Testing results submission to ACB.	Ambulatory/Inpatient	January 15, 2023





## ATTESTATION

This Real World Testing Results Report is complete with all required elements, including measures and outcomes that address all certification criteria and care settings. All information in this report is up to date and fully addresses the health IT developer's Real World Testing requirements.

Authorized Representative Name:

Glenn Janzen

Authorized Representative Email:

Glenn.Janzen@ihs.gov

Authorized Representative Phone:

301.526.9656

Authorized Representative Signature:

Date: March 6th, 2023