

EMR Certification

Immunization Query Service Assessment Guide

November 20, 2023

Version 1.2



Shared health
Soins communs
Manitoba

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1 Overview

1.1 Document Purpose

This document contains details for the assessment component which are required for an EMR to conform to the Immunization Query Service Specification.

1.2 Related Documents

This document references the following companion documents:

Table 1: Related Documents

DOCUMENT
Immunization Query Service Specification
Immunization Query Service – Assessment Addendum
Baseline EMR Requirements Specification
PCQI Reminders and Data Extract Specification

2 Product Assessment

The Immunization Query Service Specification defines the requirements for integration between a Certified EMR Product and the Immunization Query Service.

2.1 Preparing for Product Assessment

Vendors of a Certified EMR Product are advised to thoroughly prepare to ensure that the assessment goes smoothly and to ensure that it can be completed in the allocated time. Before an assessment session, the vendor must:

1. Complete the assertion component of assessment by submitting [Appendix A](#).
2. Review each scenario to ensure understanding. If questions arise, please contact your designated Shared Health contact and they will provide any required clarification.
3. Complete the pre-requisites related to each assessment scenario.
4. Conduct an end-to-end dry run to ensure that any identified issues can be remedied prior to assessment, and to confirm the time required to complete the assessment. If more time is required than initially allocated, please advise Shared Health at the earliest opportunity.

Demonstration provided by vendors that does not align with Assessment Scenarios or Assessment Addendum data may require re-testing to confirm that requirements are met.

Vendors are expected to keep in-session development to a minimum during assessment sessions. Shared Health reserves the right to discontinue any assessment sessions based on vendor resource readiness.

2.2 Addendum

A companion document to this Assessment Guide is the Immunization Query Service Assessment Addendum (addendum) which must be requested. The addendum will contain the necessary information to connect the vendor's assessment environment to Shared Health enabling assessment. The following information will be contained in the addendum:

- Client ID and Temporary Client Secret
- Endpoints
- Current Supported TLS Cipher Suites
- Sample Requests
- Test patients
 - Assessment scenarios contain references to patients that will be provided in the addendum
 - Test patients must be configured in the EMR prior to assessment sessions

2.3 Assessment Column Definitions

ID – A unique identifier for the assessment scenario.

Description – A brief text description of the assessment being performed.

Precondition – Any setup that must be in place prior to the assessment being performed.

Script – The detailed steps needed to execute the assessment.

Expected Results – The detailed results to be demonstrated and that prove successful execution of the test.

Reqmt Xref – A reference to one or more requirements from the specification.

2.4 Assessment Scenarios

AUTHORIZATION

Table 2: Assessment Scenarios – Authorizations

ID	DESCRIPTION	PRECONDITION	SCRIPT	EXPECTED RESULTS	REQMT XREF
A01	Set client_id and client_secret.		1. EMR administrator/appropriate user sets client_id and client_secret.	1. EMR saves client_id and client_secret.	AUTH02 AUTH03
A02	Describe the process to maintain a valid access_token and client_secret.		1. Vendor describes process to ensure: <ul style="list-style-type: none"> access_token exists and is not expired access_token is for the Immunization Query Service client_secret is not expired 	1. Process does not create an issue for the Immunization Query Service.	AUTH01 AUTH02 AUTH03 AUTH04 AUTH05 AUTH06

ID	DESCRIPTION	PRECONDITION	SCRIPT	EXPECTED RESULTS	REQMT XREF
A03	Use a new temporary client_secret after a previous successful request.	Previous successful request. Shared Health provides a temporary password.	<ol style="list-style-type: none"> 1. Enter temporary client_secret. 2. Invoke Immunization Query Service request. 	<ol style="list-style-type: none"> 1. client_secret stored. 2. Successful response received. 	AUTH04
A04	Describe the process to secure service access information.		<ol style="list-style-type: none"> 1. Vendor describes process of how all requests are secured. 	<ol style="list-style-type: none"> 1. Requests are secured. 	AUTH09

INTEGRATION

Table 3: Assessment Scenarios - Integration

ID	DESCRIPTION	PRECONDITION	SCRIPT	EXPECTED RESULTS	REQMT XREF
I01	Disable Immunization Query Service	Immunization Query Service capabilities are enabled.	<ol style="list-style-type: none"> 1. EMR administrator/appropriate user disables service. 2. Invoke service. 3. EMR administrator/appropriate user enables service. 	<ol style="list-style-type: none"> 1. Service capabilities are disabled. 2. Immunization Query Service action is not permitted. 3. Service capabilities are enabled. 	IQS007
I02	Confirming System and User details in request		<ol style="list-style-type: none"> 1. Access service details function. 2. Invoke service. 	<ol style="list-style-type: none"> 1. EMR displays: <ul style="list-style-type: none"> • Organization ID • Organization Name • System ID • System Name 2. Request header includes generic request elements: 	IQS001 IQS004

ID	DESCRIPTION	PRECONDITION	SCRIPT	EXPECTED RESULTS	REQMT XREF
				<ul style="list-style-type: none"> • OrgID • OrgName • SysID • SysName • userID • userLastName • userFirstName 	
I03	Service is unavailable	Shared Health suspends access to the Immunization Query Service.	<ol style="list-style-type: none"> 1. Invoke service. 2. Access other EMR functionality. 3. Access error details in the Interface log. 	<ol style="list-style-type: none"> 1. Displays error message. 2. Provides access. 3. Error details are displayed. 	AUTH07 IQS029
I04	User/role access	EMR User has service privileges.	<ol style="list-style-type: none"> 1. EMR administrator/appropriate user removes service privileges for the EMR User or their role. 2. Login as EMR User and attempt to access the service and other areas of EMR. 3. Login as EMR administrator/appropriate user and grant access to the service for the EMR User or role. 4. Login as EMR User and attempt to access the service. 	<ol style="list-style-type: none"> 1. EMR User or role does not have service privileges. 2. User is either prevented from accessing service or error message is displayed when trying to access the service. User can still access other areas of EMR. 3. EMR User or role has service privileges. 4. User is able to access the service. 	IQS005 IQS006

ID	DESCRIPTION	PRECONDITION	SCRIPT	EXPECTED RESULTS	REQMT XREF
I05	Patient does not have minimum search criteria		<ol style="list-style-type: none"> 1. Create EMR patient with Date of Birth and Administrative Sex (missing PHIN and Last Name) and invoke service. 2. Create EMR patient with Date of Birth and Last Name (missing PHIN and Administrative Sex) and invoke service. 3. Create EMR patient with PHIN, Last Name, Administrative Sex (missing Date of Birth) and invoke service. 	<ol style="list-style-type: none"> 1. Unable to invoke service and/or displays error indicating minimum required data not present. 2. Unable to invoke service and/or displays error indicating minimum required data not present. 3. Unable to invoke service and/or displays error indicating minimum required data not present. 	IQS008
I06	GET by PHIN/birthdate exists	[Client X1] is in context and does not have any PHIMS data.	<ol style="list-style-type: none"> 1. Navigate to Immunization Query Service trigger area. 2. Invoke service. 3. Cancel without incorporating any immunization resources and view log. 4. Invoke service. 5. Incorporate first immunization resource and view log. 	<ol style="list-style-type: none"> 1. Patient PHIN, Date of Birth, Last Name and Administrative Sex are visible. 2. Match is found. Patient.id is saved to EMR patient record. The following are displayed: <ul style="list-style-type: none"> • Patient demographics • List of PHIMS immunization resources 3. Log shows: <ul style="list-style-type: none"> • User ID • User first name • User last name 	IQS002 IQS003 IQS009 IQS010 IQS015 IQS016 IQS017 IQS028

ID	DESCRIPTION	PRECONDITION	SCRIPT	EXPECTED RESULTS	REQMT XREF
				<ul style="list-style-type: none"> • <i>GET Patient</i> request using PHIN, birthDate <ol style="list-style-type: none"> 4. Match is found. The following are displayed: <ul style="list-style-type: none"> • Patient demographics • List of immunization resources 5. Log shows: <ul style="list-style-type: none"> • User ID • User first name • User last name • <i>GET Patient</i> request using Patient.id 	
107	<p>GET by PHIN/birthdate exists</p> <p>Consent to Disclose Directive</p>	[Client X2] is in context and does not have any PHIMS data.	<ol style="list-style-type: none"> 1. Invoke service. 2. View log. 	<ol style="list-style-type: none"> 1. EMR indicates Patient has Consent to Disclose Directive in PHIMS. 2. Log shows <i>GET Patient</i> request using PHIN, birthDate. 	<p>IQS002</p> <p>IQS003</p> <p>IQS010</p> <p>IQS013</p> <p>IQS030</p>
108	<p>GET by Patient.id exists</p> <p>Consent to Disclose Directive</p>	<p>[Client X1] is in context and has incorporated PHIMS immunization resources.</p> <p>PHIMS patient has <u>no</u> Consent to Disclose Directive.</p>	<ol style="list-style-type: none"> 1. Invoke service. 2. Incorporate all immunization resources. 3. View patient's immunizations. 4. Apply Consent to Disclose Directive to patient in PHIMS. 5. Invoke service. 6. Remove Consent to Disclose Directive from patient in PHIMS. 	<ol style="list-style-type: none"> 1. Match is found. 2. All immunization resources are incorporated into EMR patient record. 3. Incorporated PHIMS immunization resources appear in EMR patient record, with indication they are from PHIMS. Displays proper description of CodeableConcept elements. 	<p>IQS002</p> <p>IQS010</p> <p>IQS013</p> <p>IQS016</p> <p>IQS017</p> <p>IQS018</p> <p>IQS019</p> <p>IQS021</p> <p>IQS025</p> <p>IQS030</p>

ID	DESCRIPTION	PRECONDITION	SCRIPT	EXPECTED RESULTS	REQMT XREF
				<p>Notes element contains proper line breaks.</p> <ol style="list-style-type: none"> Patient has Consent to Disclose Directive in PHIMS. EMR indicates Patient has Consent to Disclose Directive and that any currently incorporated immunization resources for the patient may be out of date. Patient does not have Consent to Disclose Directive in PHIMS. 	
109	<p>GET by PHIN/birthdate does not exist</p> <p>GET by family/birthdate/gender exists</p>	<p>[Client X3] is in context and does not have any PHIMS data.</p> <p>A matching PHIMS patient has no PHIN, has matching family, birthDate, gender.</p> <p>Another matching PHIMS no PHIN, has matching family, birthDate, gender and has Consent to Disclose Directive.</p>	<ol style="list-style-type: none"> Invoke service. Continue with demographic search. Select patient. Cancel without incorporating any immunization resources. Invoke service. View log. 	<ol style="list-style-type: none"> Error indicating no match on PHIN is displayed and logged, with prompt asking user if they wish to continue with demographic search. List of matching PHIMS patient resources resulting from patient search is displayed. Indication of Consent to Disclose Directive is displayed. The following are displayed: <ul style="list-style-type: none"> Patient demographics List of PHIMS immunization resources in the order received EMR exits out of flow. 	<p>IQS002</p> <p>IQS010</p> <p>IQS011</p> <p>IQS012</p> <p>IQS013</p> <p>IQS014</p> <p>IQS016</p> <p>IQS017</p> <p>IQS028</p>

ID	DESCRIPTION	PRECONDITION	SCRIPT	EXPECTED RESULTS	REQMT XREF
				5. The following are displayed: <ul style="list-style-type: none"> • Patient demographics • List of immunization resources unsorted 6. Log shows sequence of requests.	
I10	GET by family/birthdate/gender exists	<p>[Client X4] is in context and does not have any PHIMS data.</p> <p>PHIMS patient has matching last name, DOB, gender.</p>	1. Invoke service. 2. Cancel without selecting a patient. 3. Invoke service. 4. Select patient. 5. Incorporate all immunization resources.	1. List of matching patient resources is displayed. 2. Process is cancelled. 3. List of matching patient resources is displayed. 4. The following are displayed: <ul style="list-style-type: none"> • Patient demographics • List of immunization resources unsorted 5. All immunization resources are incorporated.	IQS002 IQS010 IQS014 IQS015 IQS016 IQS017 IQS028
I11	GET by family/birthdate/gender does not exist	<p>[Client X5] is in context and does not have any PHIMS data.</p> <p>PHIMS contains no matching patients.</p>	1. Invoke service. 2. Continue with demographic search.	1. Error indicating no match on PHIN is displayed and logged, with prompt asking user if they wish to continue with demographic search. 2. EMR displays no resources.	IQS002 IQS010
I12	Merged Away Patient	<p>[Client X6] is in context and does not have any incorporated immunization resources.</p>	1. Invoke service. 2. Incorporate first immunization resource. 3. Merge patient in PHIMS. 4. Invoke service. 5. View Log.	1. List of PHIMS immunization resources is displayed. 2. First immunization resource is incorporated. 3. Patient is merged away in PHIMS.	IQS010 IQS016 IQS017 IQS019

ID	DESCRIPTION	PRECONDITION	SCRIPT	EXPECTED RESULTS	REQMT XREF
				<ol style="list-style-type: none"> 4. EMR sends GET Patient request using original ID. After getting response back with replaced-by ID, sends another GET Patient request using the replaced-by ID, followed by GET Immunization request. List of PHIMS immunization resources is displayed, including that first resource has already been incorporated and is updated. 5. Log shows sequence of requests. 	
I13	Update Immunizations	[Client X1] is in context and has incorporated PHIMS immunization resources.	<ol style="list-style-type: none"> 1. Update immunization resources in PHIMS. 2. Invoke service. 3. View audit trail. 	<ol style="list-style-type: none"> 1. Immunization resources are updated in PHIMS. 2. EMR updates incorporated PHIMS resources for the patient and indicates which resources are updated. 3. Previous version of incorporated PHIMS immunization resource is available in audit trail. 	<p>IQS022 IQS025</p>
I14	Un-incorporate Immunizations (manual)	[Client X1] is in context and has incorporated PHIMS immunization resources.	<ol style="list-style-type: none"> 1. Invoke service. 2. Incorporate all immunization resources. 3. Un-incorporate PHIMS immunization resource. 4. View audit trail. 	<ol style="list-style-type: none"> 1. Match is found. 2. All immunization resources are incorporated. 3. PHIMS immunization resource is un-incorporated from EMR patient record. 	<p>IQS025 IQS027</p>

ID	DESCRIPTION	PRECONDITION	SCRIPT	EXPECTED RESULTS	REQMT XREF
			5. Invoke service.	4. Un-incorporated PHIMS immunization resource is available in audit trail. 5. Previously un-incorporated PHIMS immunization resource is once again available for incorporation.	
I15	Immunization resource no longer in PHIMS	[Client X1] is in context and has incorporated all PHIMS immunization resources.	1. View patient immunizations. 2. Remove immunization resource in PHIMS. 3. Invoke service. 4. View patient immunizations. 5. View audit trail. 6. Add immunization resource back in PHIMS.	1. Immunization resources, including incorporated PHIMS immunization resources are displayed. 2. Immunization resource is removed from PHIMS. 3. EMR un-incorporates PHIMS immunization resources not contained in GET Immunization response and notifies user. 4. Un-incorporated immunization resource is not in patient's list of immunizations. 5. Un-incorporated PHIMS immunization resource is available in audit trail. 6. Immunization resource is in PHIMS.	IQS021 IQS023 IQS025
I16	Remove all PHIMS data from EMR patient record	[Client X4] is in context and has incorporated PHIMS	1. Remove all PHIMS data from EMR patient record. 2. Invoke service. 3. View audit trail.	1. All PHIMS data (e.g. Patient.id and incorporated resources) removed from EMR patient record.	IQS025 IQS026

ID	DESCRIPTION	PRECONDITION	SCRIPT	EXPECTED RESULTS	REQMT XREF
		immunization resources.		<ol style="list-style-type: none"> 2. List of matching patient resources is displayed. 3. Un-incorporated PHIMS immunization resources are available in audit trail. 	
I17	Querying/Reporting	<p>Patient 1 record contains:</p> <ul style="list-style-type: none"> • relationship to a provider • locally entered immunization record <p>Patient 2 record contains:</p> <ul style="list-style-type: none"> • relationship to a provider • incorporated PHIMS immunization resource <p>Patient 3 record contains:</p> <ul style="list-style-type: none"> • incorporated PHIMS immunization resource 	<ol style="list-style-type: none"> 1. Create and execute query for patients with a relationship to the selected provider AND any immunization record. 	<ol style="list-style-type: none"> 1. Query results display: <ul style="list-style-type: none"> • patient 1 • patient 2 	IQS020

3 Appendix A: Assertions

It is required to provide self-assessment against requirements that have an assessment type of “Assertion”. Follow the instructions below to complete the assertion component of this assessment:

1. Print Appendix A.
2. Assess your product's ability to meet each requirement below.
 - Where the product fully meets the requirement, check “Yes” in the Assertion column
 - Where the product will need to be enhanced to fully meet the requirement, check “No” in the Assertion column

Note that your product must be enhanced for all requirements with a No assertion, prior to approval of your product.

3. Scan the completed assertion sheet and save the scanned sheet with a filename that uniquely identifies your product. For example, Assertion_IQS_PRODUCT-NAME.pdf.
4. Submit the completed Assertion document to your Shared Health contact.

Table 4: Assertions

ORGANIZATION NAME		
EMR PRODUCT NAME		
ID		ASSERTION
AUTH08		<input type="checkbox"/> Yes <input type="checkbox"/> No
AUTH10		<input type="checkbox"/> Yes <input type="checkbox"/> No
INFS01		<input type="checkbox"/> Yes <input type="checkbox"/> No
INFS02		<input type="checkbox"/> Yes <input type="checkbox"/> No
INFS03		<input type="checkbox"/> Yes <input type="checkbox"/> No
INFS04		<input type="checkbox"/> Yes <input type="checkbox"/> No
Baseline EMR Requirements Specification 08-001		<input type="checkbox"/> Yes <input type="checkbox"/> No
Baseline EMR Requirements Specification 08-002		<input type="checkbox"/> Yes <input type="checkbox"/> No
Baseline EMR Requirements Specification 17-001		<input type="checkbox"/> Yes <input type="checkbox"/> No
Baseline EMR Requirements Specification 17-002		<input type="checkbox"/> Yes <input type="checkbox"/> No
PCQI Reminders and Data Extract Specification PCG-03		<input type="checkbox"/> Yes <input type="checkbox"/> No
AUTHORIZED REPRESENTATIVE		
Name		
Title		
Date		

(Immunization Query Service Assessment Guide)

4 Appendix B: Test Case to Requirement Traceability

Table 5: Test Case to Requirement Traceability

Test Case ID	Specification Requirements																																								
	AUTH01	AUTH02	AUTH03	AUTH04	AUTH05	AUTH06	AUTH07	AUTH08	AUTH09	AUTH10	ISS001	ISS002	ISS003	ISS004	ISS005	ISS006	ISS007	ISS008	ISS009	ISS010	ISS011	ISS012	ISS013	ISS014	ISS015	ISS016	ISS017	ISS018	ISS019	ISS020	ISS021	ISS022	ISS023	ISS025	ISS026	ISS027	ISS028	ISS029	ISS030		
Assertions						X		X																																	
A01		X	X																																						
A02	X	X	X	X	X	X																																			
A03				X																																					
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I07													X	X					X																					X	
I08													X						X									X	X	X	X				X					X	
I09																				X	X	X	X	X				X	X										X		
I10																				X						X	X	X											X		
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5 Appendix C: Release Notes

Version 1.1 – October 25, 2023

- Initial release.

Version 1.2 – November 20, 2023

- I08 – Updated to not expect that PHIMS data be removed from patient record and to expect an indication that currently incorporated immunization resources for the patient may be out of date. Removed Reqmt xRef to IQS024.
- Appendix B – removed IQS024.