



Canada Health Infoway

Projectathon Overview

Update to the IHE Community

Location: Online

Date: February 9, 2022

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Objectives

- Raise awareness of the PS-CA
- Provide insights into approach to interoperability
- Further stakeholder understanding
- Answer questions

PS-CA and IPS

An implementable, testable specification, based on the International Patient Summary (IPS), as defined by IHE International Patient Summary Specification, HL7 IPS Implementation Guide, CEN-EN 17269 and ISO/DIS 27269.

The PS-CA FHIR profile set is as closely aligned to the HL7 IPS-UV specification as possible, while still supporting localized needs and reducing barriers to early adoption

PS-CA defines building blocks (both: content data model and interoperability) to create and share condition-independent and specialty-agnostic patient summaries



pan-Canadian PS Specifications - Project Scope (R1)

An overview

Project Background

Patient Summary-CA – **A national collaborative effort of developing a pan-Canadian implementable specification**

Project Approach



Baseline: Develop foundational Use Cases and Business Requirements for pan-Canadian Patient Summaries based on **collaborative workshopping** with jurisdictions, industry, clinical expert and other relevant organizations



Collaborate: Collaborate with jurisdictions, clinical SMEs, technical SMEs, vendors, participating organizations to develop and refine detailed artefacts



Review: Review and provide feedback into artefacts through engagement workshops and input gathering



Publish: Publish artefacts for broader stakeholder consultation



Recommend: Recommend draft artefacts for approval



Iterate: Continue to refine as per testing and priorities

Jurisdictional Alignment

Stakeholder Engagement has identified a set of common use cases for the pan-Canadian Patient Summary, **Release 1** prioritizes these 3.

Use Cases in Scope for Release 1	AB	BC	NL	ON	SK
1. Health Care Provider (HCP) Creates and submits a Patient Summary-CA	x	x	x	x	x
2. Health Care Provider (HCP) Retrieves, Views and Uses a Patient Summary-CA	x	x	x	x	x
3. Patient Accesses and Views their Patient Summary-CA	x	x	x	x	

Solving for specific interoperability priorities, such as Patient Summaries, while also addressing the broader interoperability landscape

2

Conformance testable specifications focused on specific infrastructure or clinical needs, and associated data sets

- IHE IT Infrastructure (ITI) Framework
- Care Coordination including the IHE International Patient Summary (IPS)
- Medication/Pharmacy
- Radiology
- Cardiology
- Lab/Pathology
- Devices
- Others

1

BASE STANDARDS

HL7 v2,
v3, CDA

HL7 FHIR

LOINC

SNOMED

DICOM

ICD9/10

The **pan-Canadian Patient Summary specification (PS-CA)** is a **level 2 specification**

1

Adoption of Base Standards is not enough

- Projects and vendors across the country use base standards but there is lack of harmonization across implementations

2

Interoperability requires harmonization of testable specifications across public and private sector implementers

- **There is a growing body of testable specifications in use by multiple countries and healthcare sectors**
- The diagnostic imaging sector is most mature in embracing testable specifications

An integrated and harmonized collection of specifications, policies and infrastructure is required to enable wider interoperability



In a few weeks Infoway will introduce a **Proposed pan-Canadian Interoperable Reference Architecture** to stimulate a conversation on a key dimension of the wider Interoperability landscape

Reference Architecture that Supports PS-CA

An overview of the recommended PS-CA Actors and Transactions

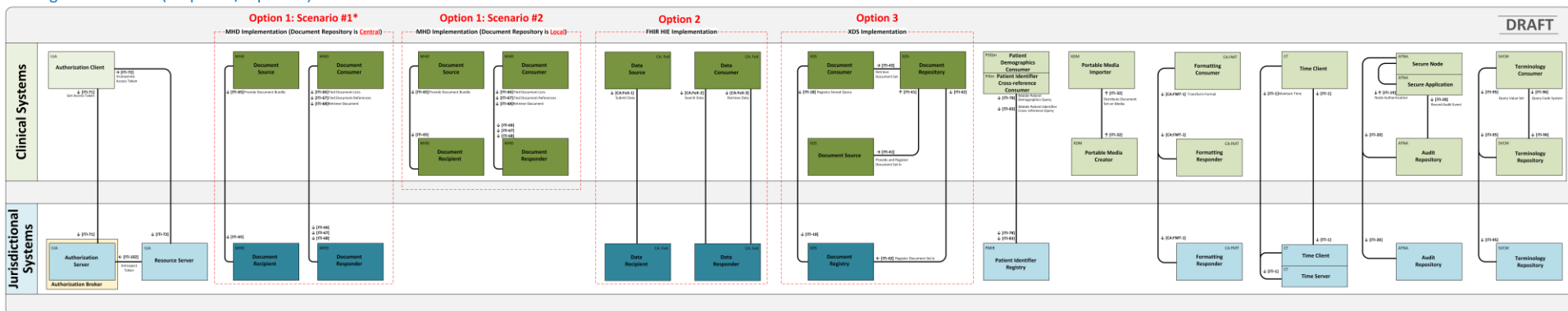
ILLUSTRATIVE

This high-level view contains a superset of profiles that offer alternatives to exchanging the Patient Summary-CA depending on jurisdictional service type and availability. **Mandatory and optional capability support** is described in the sequence diagrams associated with each use case analysis.

Patient Summary-CA Release 1 Integration Profiles (Required / Optional)



DRAFT



IHE Profiles

- IUA Internet User Authorization
- IUA Mobile access to Health Documents
- XDS Cross Enterprise Document Sharing
- PMIR Patient Master Identity Registry
- PDQm Patient Demographics Query for Mobile
- PIKm Patient Identifier Cross-Reference for Mobile
- XDM Cross-enterprise Document Media Interchange
- ATNA Audit Trail and Node Authentication
- CT Consistent Time
- SVCM Sharing Valuesets, Codes and Maps

- Canadian National Integration Profile(s)
- CA-PeX FHIR Exchange
- CA-FMT Formatting Support Service

*Preferred Option

Legend



Clinical System Actors



Jurisdictional System Actors



The PS-CA Interoperable Specification

Sample from the Specification document

ILLUSTRATIVE

Table 1. Interoperability Conformance Requirements for Use Case 1: HCP Creates PS-CA

PS-CA USE CASE 1: HCP Creates PS-CA			MAPPING TO SECTIONS FROM THIS AND REFERENCED INTEROPERABILITY SPECIFICATIONS			
USE CASE ACTOR	SERVICE SUPPORTED	OPT	TECHNICAL ACTOR	OPT	PROFILE/ STANDARD	REFERENCED SPECIFICATION AND STANDARDS
PS-CA Producer	Authenticate User	R	Client (EMR)	R	Internet User Assertion (IUA)	Refer to Appendix A – IUA Profile Overview
	Identify Patient	O	Client (EMR)	R	Use Existing Standards Employed by the Clinical System	N/A
		O	Patient Demographic Consumer	R	PDQm	Refer to Appendix A – PDQm Profile Overview
	Retrieve clinical data from local data sources	R	Client (EMR)	R	Use Existing Standards Employed by the Clinical System	N/A
	Assemble and review Patient Summary	R	Client (EMR)	R	Use Existing Standards Employed by the Clinical System	N/A
	Update Current Valuesets and ConceptMaps	O	Client (EMR)	R	SVCM	Refer to Appendix A – SVCM Profile Overview
	Omit or Mask Data based on Jurisdictional Policy	O	Client (EMR)	O	Jurisdictional Requirement	N/A
	Save PS-CA to Document Repository	R	Client (EMR)	R	Use Existing Standards Employed by the Clinical System	N/A
M		Document Source	M	MHD	Refer to Appendix A – MHD Profile Overview	
HIE Central Infrastructure	Identify Patient	O	Patient Identity Registry	R	PMIR	Refer to Appendix A – PMIR Profile Overview
Document Repository (Local to PS-CA Producer or Central)	Save PS-CA to Document Repository	M	Document Recipient	M	MHD	Refer to Appendix A – MHD Profile Overview

The Use Case Actors and the Services they support are described in the following table. Services may be **Mandatory, Recommended or Optional**.

This table provides the mapping for the Use Case Actor to the detailed specifications (such as IHE Profiles, Profile Actors, Optionality) that systems shall implement to exchange healthcare information (e.g. Patient Summaries).

[Link to Interoperable Specification](#)

IHE and Gazelle

IHE is an initiative by healthcare professionals and industry to improve the way computer systems in healthcare share information.

Systems developed in accordance with IHE communicate with one another better, are easier to implement, and enable care providers to use information more effectively.



What is Gazelle?

Gazelle

- a **test management** tools oriented toward interoperability & conformance testing
- a suite of IHE actors **simulators**
- a suite of IHE **validators**
- a suite of tools for testing support (e.g. tools for data generation)

A set of tools for testing the interoperability and the conformance of eHealth Information Systems

- For IHE connectathon
- For Vendors implementing eHealth Standards
- For Users deploying and using eHealth Information Systems
- For conformity assessment testing



Keyword	Version	Status	Type	Peer type	is Validated ?	Test author	Last modifier	Last changed	Action
CHPIXM_Mobile_Id_Feed&PIXm_Query	EPR Bem 2021	ready	connectathon	Peer To Peer	false	wholman	wholman	9/17/21 8:02:55 AM	

Results per page: 20

Gazelle is a suite of tools developed by IHE. It provides an opportunity to validate the roles applications are playing in the ecosystem and ensure they are able to satisfy the interoperability requirements against their claims.

Gazelle offers several self-serve, self-test opportunities for vendors to learn and test their system's conformance to the included profiles

Users of Gazelle from around the world

- Arsenal.IT (Italy Venice Region)
- Abrumet-Brussels eHealth (Belgium)
- Insiel SPA (Italy)
- InteropSanté - France
- GE
- Agfa
- Medical PHIT (NL)
- Technikum Wien (Austria)
- IHE USA
- IHE-Europe
- IHE China
- IHE Japan
- Canada Health Infoway
- Agence eSanté-Luxembourg
- InterAMC France
- eHealth Finland
- eHealthSuisse & Federal MoH
- eHealthPlatform Belgium
- EU DG Santé-European Cross Border
- Sequoia-USA
- EFS-French Blood
- Transfusion-France
- Saudi Arabia eHealth: SHC-KSA
- Ireland eHealth (HSE)
- French ehealth (ASIP)



PS-CA components

Profiles to test	Testable during pre-PAT tests	Testable during PAT	Comments
MHD	NO	EVSCClient	Testable in peer to peer test only
XDS	XDStarClient XDSToolkit	EVSCClient	Testable in no peer and/or peer to peer test
IUA	NO	EVSCClient	Testable in peer to peer test only
PMIR	NO	EVSCClient	Testable in peer to peer test only
PDQm	Patient Manager	EVSCClient	Testable in no peer and/or peer to peer test
PIXm	Patient Manager	EVSCClient	Testable in no peer and/or peer to peer test
XDM	NA	NA	Not applicable
ATNA	Gazelle Security Suite	EVSCClient Gazelle Security Suite	Testable in no peer and/or peer to peer test
CT	NA	NA	Not applicable
SVCM	NO	NO	Not testable
CA:FeX	Under development		

Projectathon preparations - progress to date



Projectathon details posted on InfoScribe: [Prototyping+and+Validation](#)



Gazelle Testing Platform live: <https://pancanadianio.ca/>



Development of PS-CA FHIR Renderer and [OpenAPI](#) in progress



Testing Plan in progress

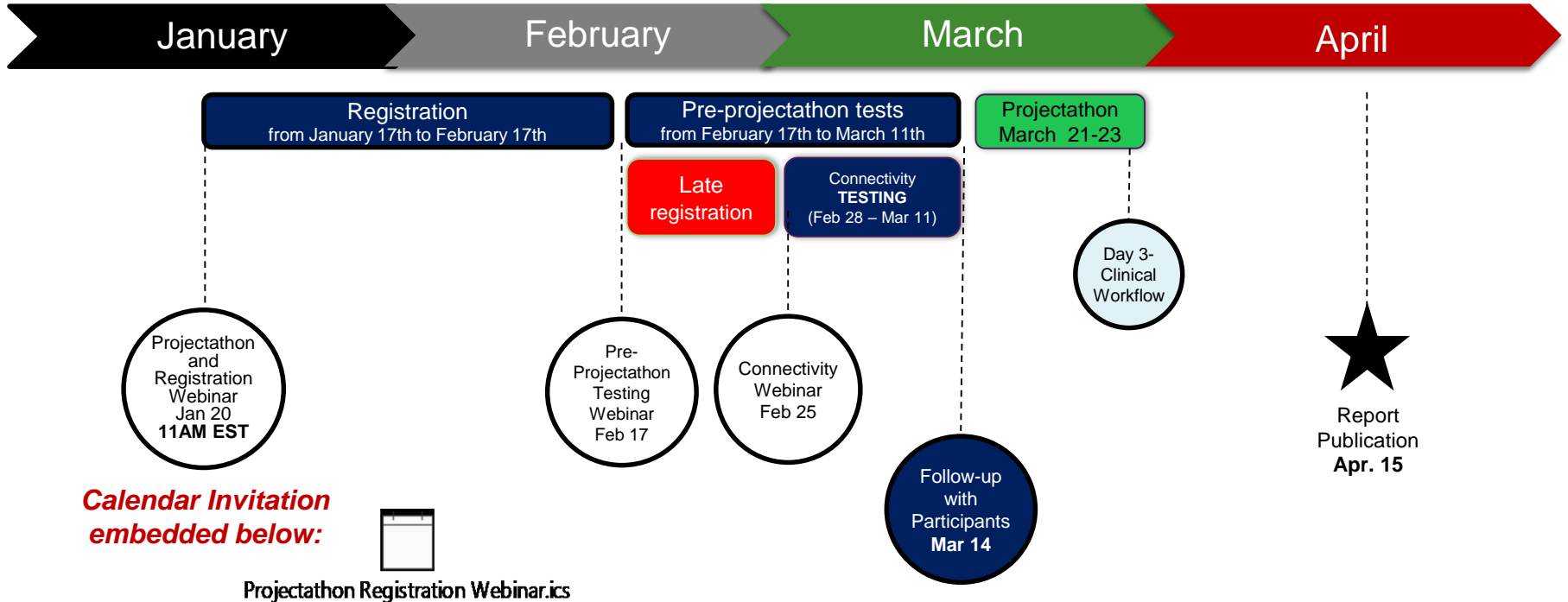


Clinical Scenarios are under development



Education Plan in progress

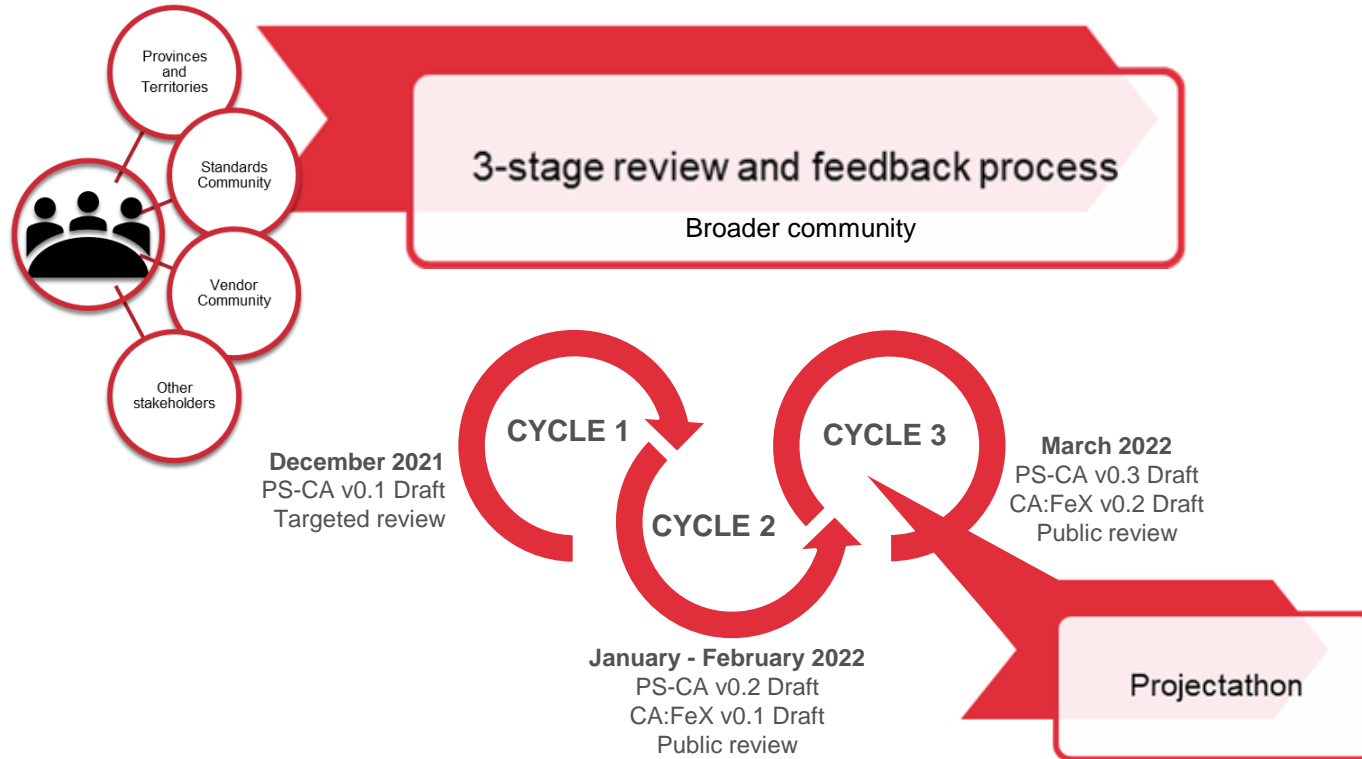
Operational timelines



Projectathon: Stakeholder Engagement

- Engagement with Vendors and Jurisdictions to gain and confirm commitment to participation continues
- To date:
 - 5 vendors have confirmed their willingness to participate: Cerner, Meditech, Teladoc, Orion, Smile CDR
 - Continued engagement with Microquest, Telus, Well Health/Intrahealth, Epic, QHR, Allscripts, Microsoft

Concurrent Review of PS-CA and CA:FeX





Canada Health Infoway

Q & A



Canada Health Infoway

Thank you!

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