Canada Health Infoway

The pan-Canadian Patient Summary Specification (PS-CA)

How to get involved

Public Webinar
Feb 2, 2022

Welcome!

- Topics we will cover today:
  - Context setting
    - Why a pan-Canadian patient summary specification?
    - What has been done to date and what is next?
  - Overview of the pan-Canadian Patient Summary specification (PS-CA) and the Canadian FHIR Exchange specification (CA:FeX)
  - Sharing your feedback with us on PS-CA and CA:FeX
  - Q & A

©2022 CANADA HEALTH INFOWAY

Why a pan-Canadian Patient Summary specification?

Extensive consultations with jurisdictions, clinicians, patients and industry in the fall of 2020 identified patient summaries as an interoperability priority area

Patient summaries can help improve:

- Coordination of care and clinical workflow efficiencies
- Health outcomes and patient safety
- Patient and provider experiences
- Cross-jurisdictional patient flows

Clinical uses of patient summaries may include:

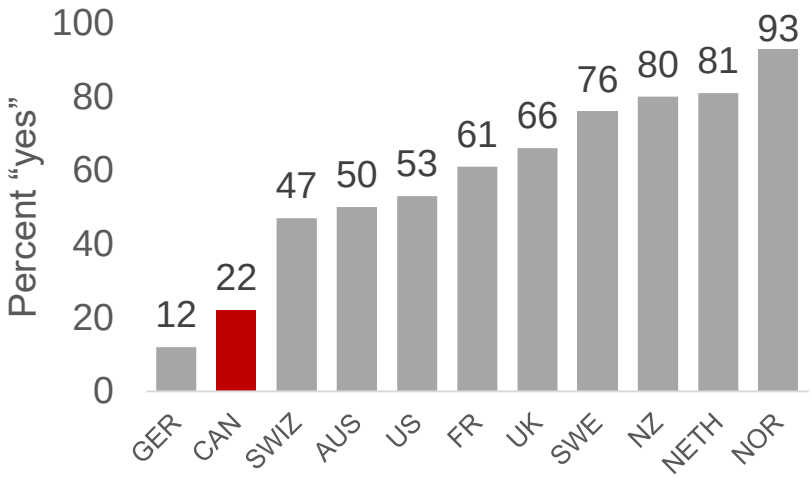
- Medical emergencies
- Unfamiliar provider at point of care
- Coordination/Transitions of care

©2022 CANADA HEALTH INFOWAY

Primary Care Physicians able to electronically exchange patient clinical summaries with any doctors outside practice

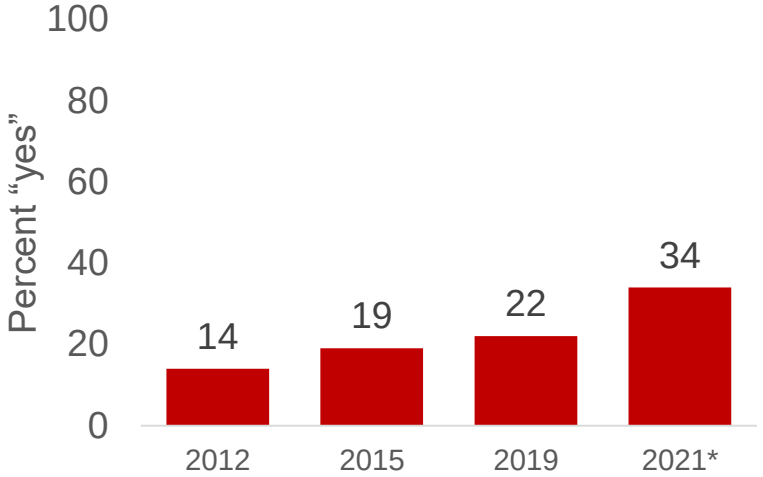
Physician reported survey data

2019 International comparisons



- Data: 2019 Commonwealth Fund International Health Policy Survey of Primary Care Physicians.
- Source: Michelle M. Doty et al., "Primary Care Physicians' Role in Coordinating Medical and Health-Related Social Needs in Eleven Countries," *Health Affairs,* published online Dec. 10, 2019.

2012 – 2021 Canadian trendline

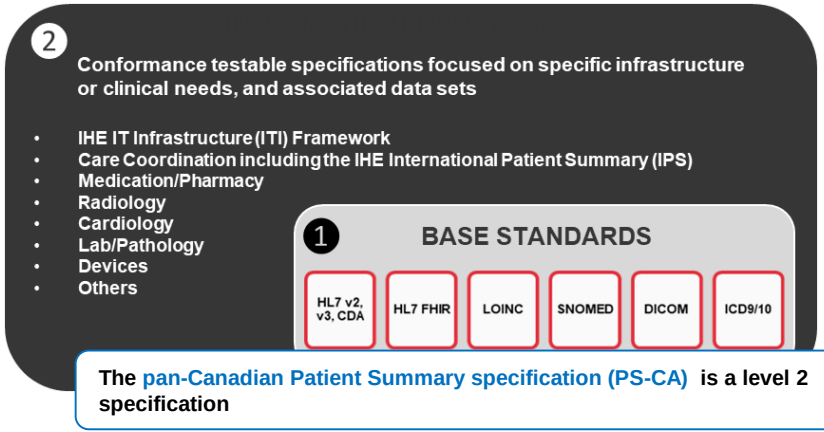


- Data: 2012, 2015 and 2019 Commonwealth Fund International Health Policy Survey of Primary Care Physicians.
- *2021 data from CMA Infoway National Survey of Physicians. Caution should be used when considering trend due to methodology differences

©2022 CANADA HEALTH INFOWAY

Canada Health Infoway

We need to solve for specific interoperability priorities, such as Patient Summaries, while also addressing the broader interoperability landscape



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

- **A growing body of specifications is being adopted internationally** (US, Europe, Asia, Latin America)
- The medical 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

©2022 CANADA HEALTH INFOWAY

Canada Health Infoway

Introducing the pan-Canadian Patient Summary Specification (PS-CA)

The pan-Canadian Patient Summary specification (PS-CA)

An implementable, testable specification, based on the International Patient Summary (IPS) specification, as defined by IHE, HL7 and ISO/DIS 27269.

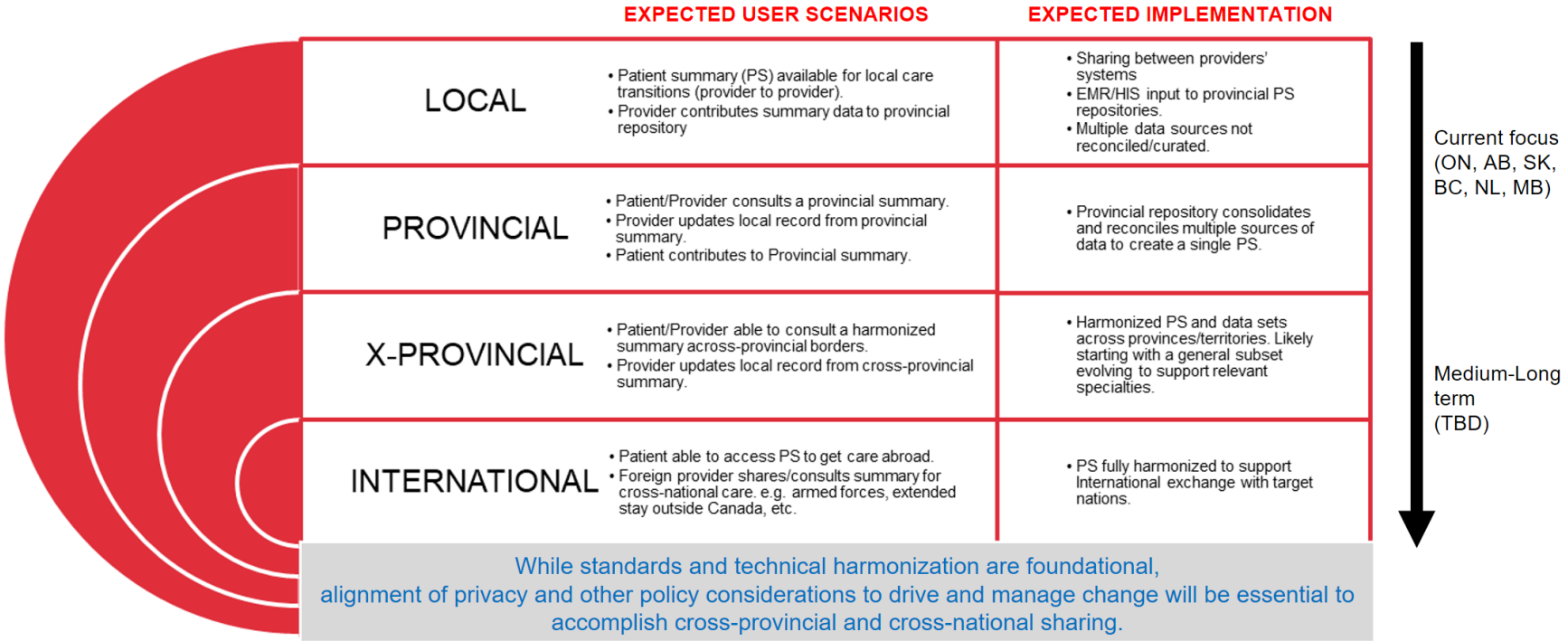
Defines building blocks to create and share condition-independent and specialty-agnostic patient summaries, irrespective of the condition of the patient or the treatment sought or specialty of the provider delivering care.

Building blocks are configurable to address necessary jurisdictional variances.

A patient summary is a health record extract, at a point in time, comprised of a standardized collection of clinical and contextual information (retrospective, concurrent, prospective), including the minimum necessary and sufficient data to inform a patient's treatment at the point of care.

©2022 CANADA HEALTH INFOWAY

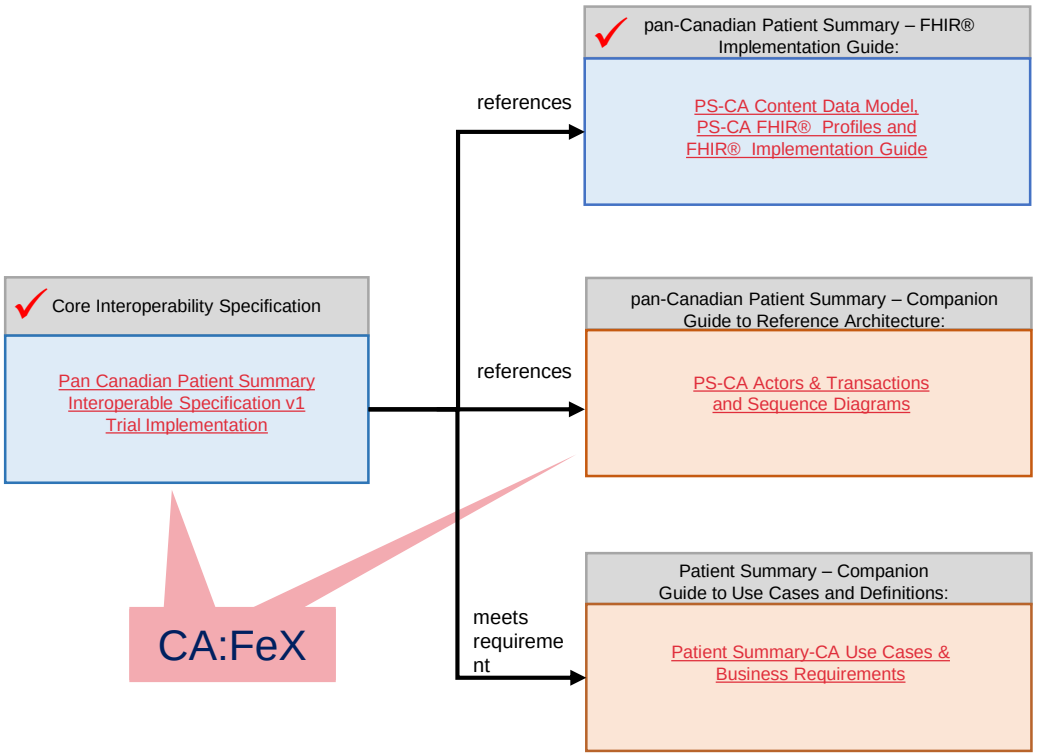
PS-CA is configurable to address necessary jurisdictional variances



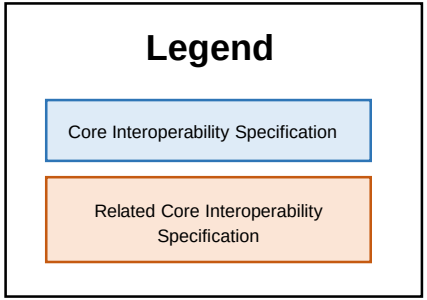
©2022 CANADA HEALTH INFOWAY

Canada Health Infoway

PS-CA Documentation Package



Link to specification package



©2022 Canada Health Infoway

Canada Health Infoway

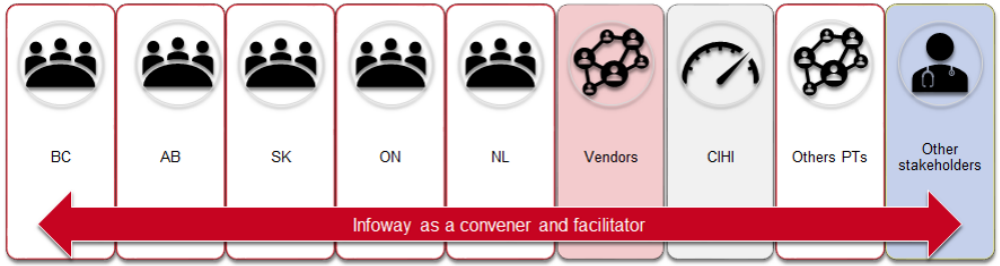
PS-CA and IPS

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

©2022 Canada Health Infoway

What has been done to date and what is next?

Collaborative Framework



1. **Convene**, facilitate collaboration and coordinate a shared work plan across participating pan-Canadian stakeholders: PTs, CIHI, clinicians, patients, industry, standards community, other interested parties.
2. **Mobilize** solution vendors to participate and commit to agreed specifications in support of PTs objectives.
3. **Consolidate, curate and coordinate** ongoing maintenance of a central library of reference materials from international and national sources: definitions, use cases, requirements, standards, specifications, lessons learned, toolsets, etc.
4. Strengthen and **support** privacy and security best practices in Canada by providing tools, forums and services to public and private implementers.
5. **Maintain** existing and new pan-Canadian standards and specifications.
6. **Provide** sandbox environment, conformance suites and support to public and private implementers to **conduct** prototyping, testing and validation via Projectathon (connectivity events).

©2022 CANADA HEALTH INFOWAY

Canada Health Infoway

Canada's G7 Commitment

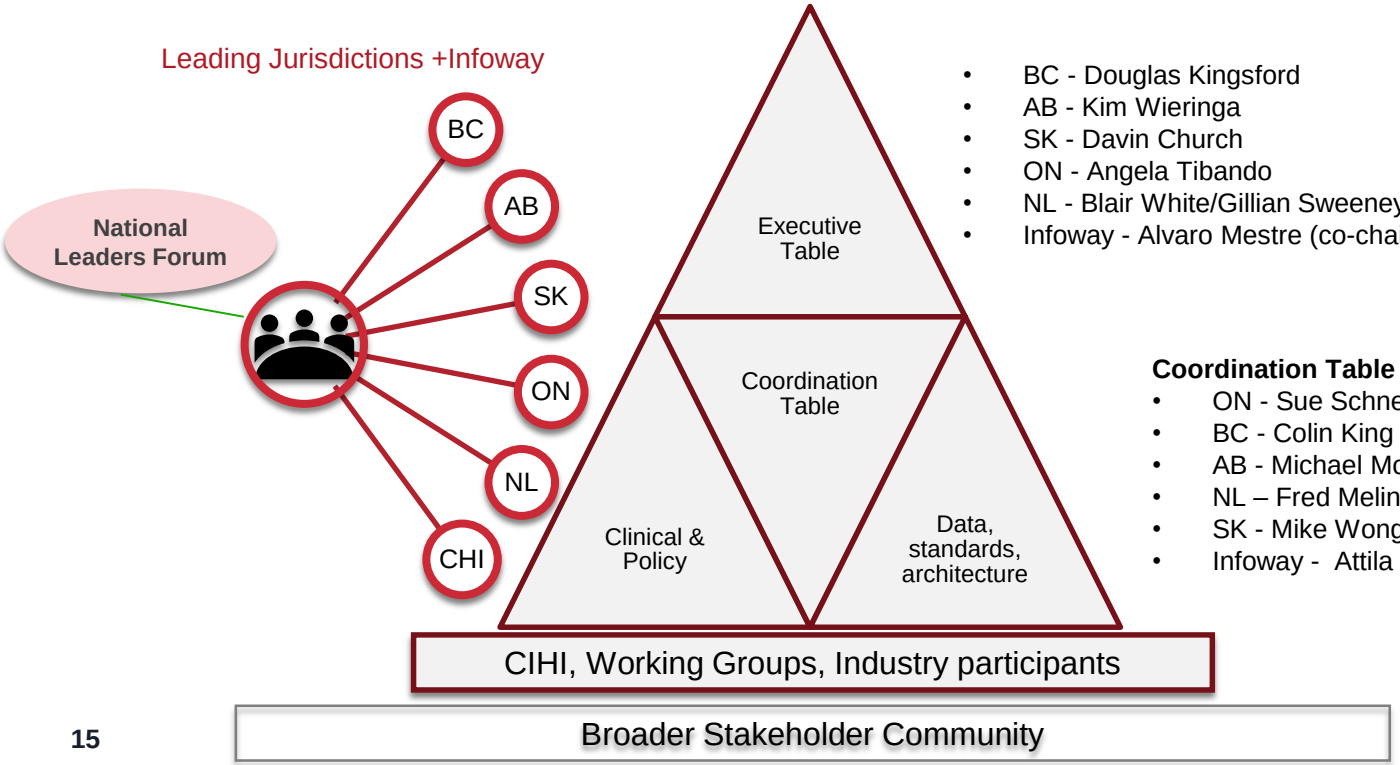
International Patient Summary (IPS)

37. We commit to work towards adopting a standardised minimum health dataset for patients' health information, including through the International Patient Summary (IPS) standard, with the shared objectives of facilitating health interoperability within and between countries, developing internationally shared principles for enabling patient access to health data, based on the principle of informed explicit consent or patient permission and in keeping with countries' and regional existing legislative frameworks; and facilitating and promoting the use of open standards for international health data to encourage the widest possible adoption of standards and greater interoperability. To achieve this goal, we will work with the Global Digital Health Partnership (GDHP) as they are already advancing IPS efforts.

Note: Infoway hold's Canada's membership in Global Digital Health Partnership (GDHP)

©2022 CANADA HEALTH INFOWAY

Governance



- BC - Douglas Kingsford
- AB - Kim Wieringa
- SK - Davin Church
- ON - Angela Tibando
- NL - Blair White/Gillian Sweeney
- Infoway - Alvaro Mestre (co-chair), Abhi Kalra

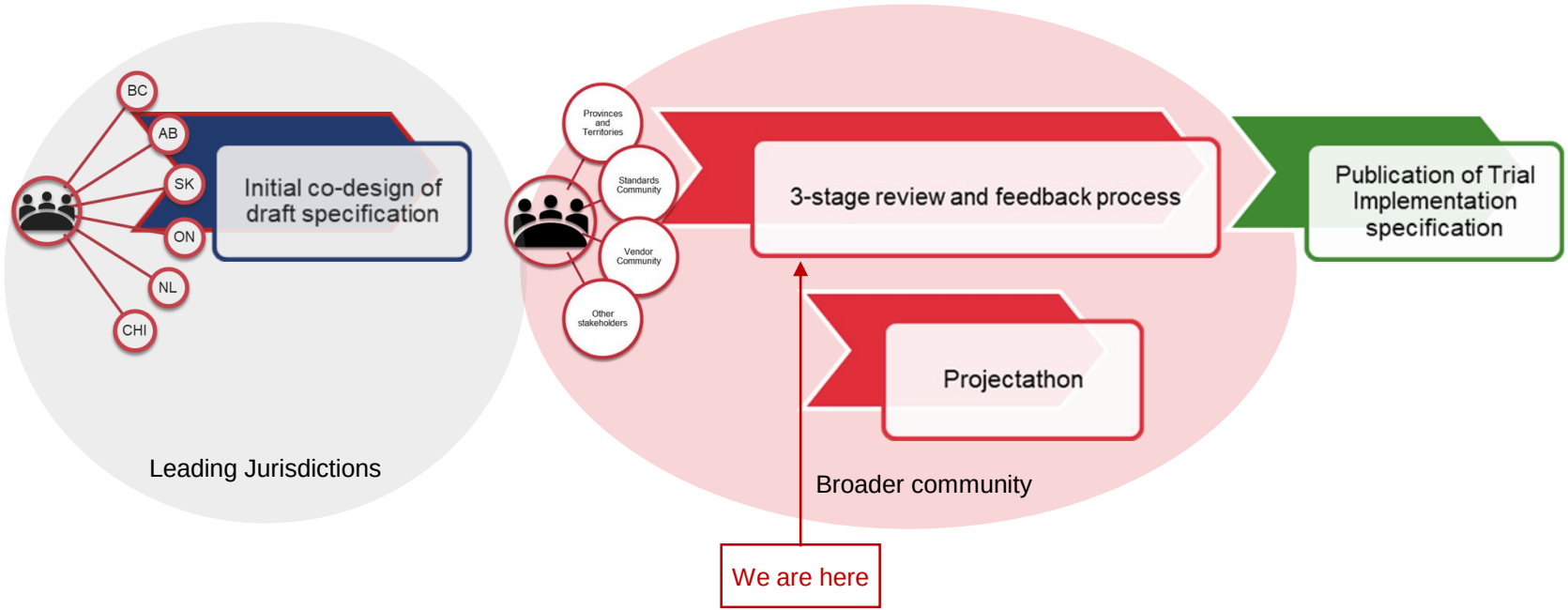
Coordination Table Leads

- ON - Sue Schneider
- BC - Colin King
- AB - Michael McDermott
- NL – Fred Melindy
- SK - Mike Wong
- Infoway - Attila Farkas (co-chair), Rita Jervis

©2022 Canada Health Infoway

Canada Health Infoway

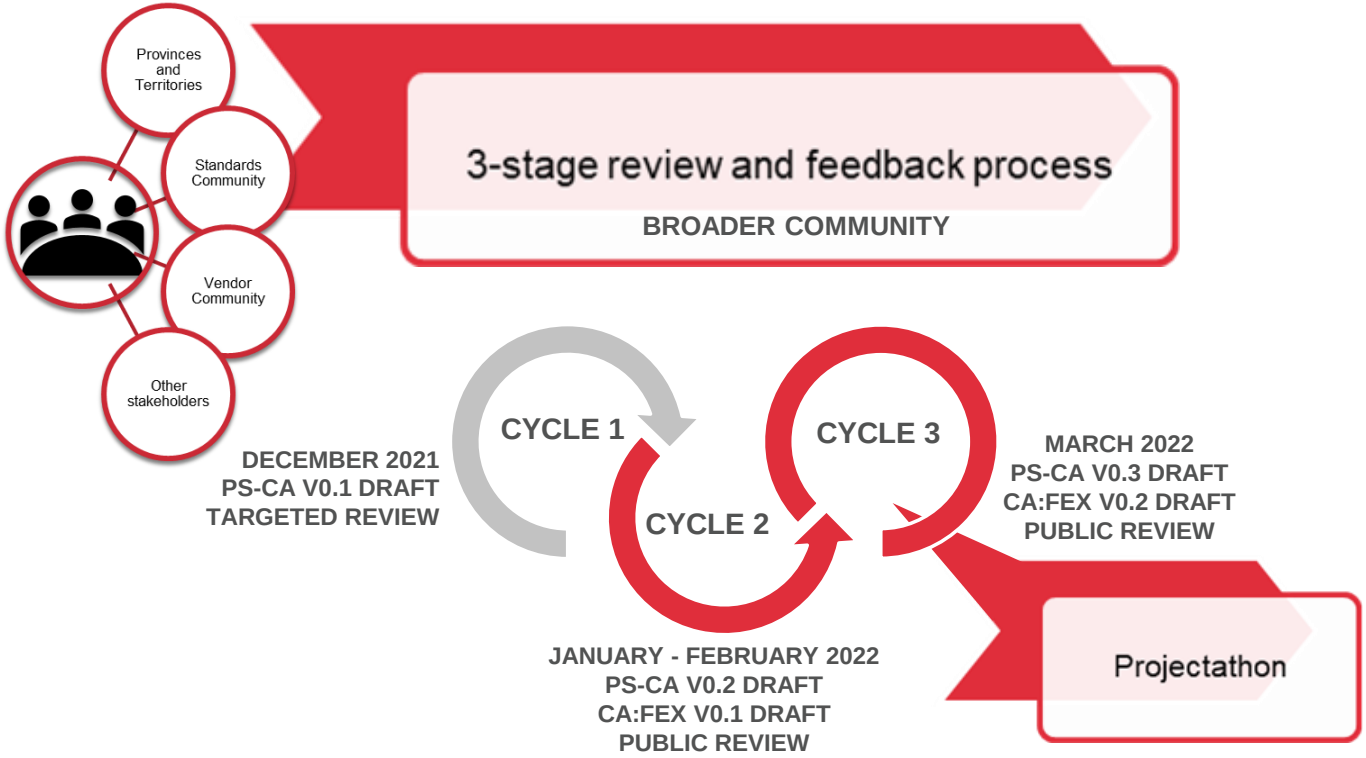
Initial co-design work sets the stage for broader stakeholder participation



©2022 CANADA HEALTH INFOWAY

Canada Health Infoway

Concurrent Review of PS-CA and CA:FeX



©2022 CANADA HEALTH INFOWAY

Canada Health Infoway

What is a Projectathon?

A session convening implementers to collaborate to test specifications and solutions using IHE Methodology and Tools

- **A Best Practice**, internationally proven to accelerate interoperability (US, EU, Asia, Latin America)
- **One step** of the complete testing process: from prototype, pre-pilot environment to the real world

Our first Projectathon is …

- **A prototyping and learning by doing event** bringing together industry and jurisdictional implementers
- Focused on testing, validating and **improving PS-CA and CA:FeX quality**
  - Is the specification clear? Is it implementable and testable? Does it meet expectations?
- A **preliminary event before any conformity assessment**, quality label or certification process
- Additional Projectathons will take place in the future, with a focus on conformance testing

A Closer Look at PS-CA and CA:FeX

PS-CA Specifications

Overview of v0.2

Patient Summary-CA Specifications

An overview

What is it?

- The Pan-Canadian Patient Summary Interoperability Specification is an implementable, testable specification, based on the IHE International Patient Summary specification and HL7 IPS IG

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

Intended Audience

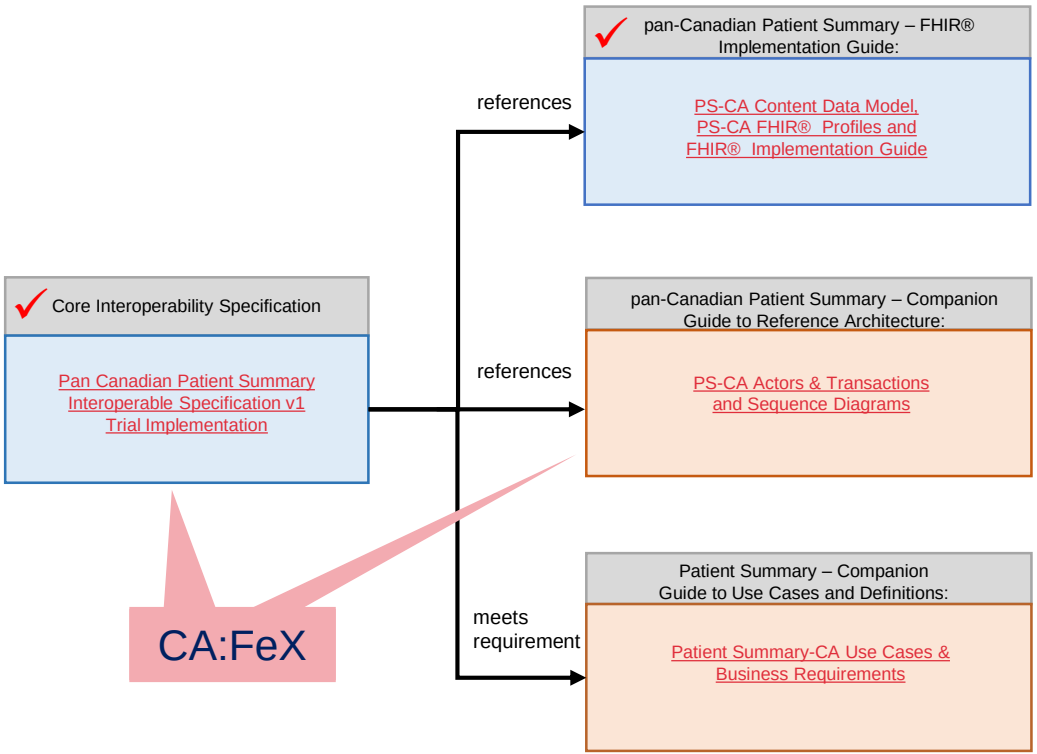
- IT departments of healthcare institutions
- Technical staff of participating vendors
- Experts involved in standards development
- Software developers

©2022 CANADA HEALTH INFOWAY

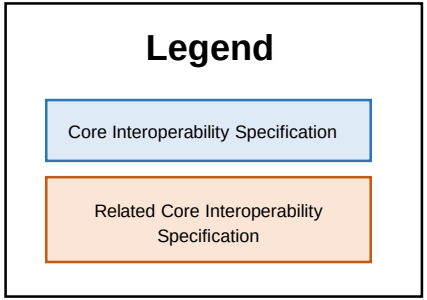
Canada Health Infoway

Patient Summary-CA Package: Related Documents

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



Link to specification package



©2022 CANADA HEALTH INFOWAY

Canada Health Infoway

The PS-CA Interoperable Specification

Link to Release Page

PS-CA Releases

The following table contains a list of the PS-CA Releases. To read the details of a specific release, including release notes, click on the Release Title name to be re-directed to the specific page containing the release details.

Release Title	Release Date	Release Type	Open Review Period	Published Content	Download Specifications (PDF)
PS-CA v0.1 Draft	November 24, 2021	Draft	November 24 - December 17, 2021	PS-CA Specifications	PS-CA Specification FHIR Implementation Guide Companion Guide to Use Cases and Definitions Companion Guide to Reference Architecture
PS-CA v0.2 Draft	January 28, 2022	Draft	January 28 - February 14, 2022	PS-CA Specifications v0.2	PS-CA Specification v0.2 FHIR Implementation Guide v0.2 Companion Guide to Use Cases and Definitions v0.2 Companion Guide to Reference Architecture v0.2
PS-CA v0.3 Draft	March 9, 2022	Draft	March 9 - March 23, 2022	PS-CA Specifications	
PS-CA v1.0 TI	April 15, 2022	Trial Implementation	N/A	PS-CA Specifications	

©2022 CANADA HEALTH INFOWAY

Canada Health Infoway

The PS-CA Interoperable Specification

Sample from the Specification document

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

Option 1: Document Repository/Registry Pattern

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 (Refer to the sections listed below in Appendix A)
PS-CA Producer	Authenticate User	O	Client (e.g., EMR)	O	Internet User Assertion (IUA)	Appendix A: IUA Profile Overview
	Identify Patient	O	Client (e.g., EMR)	O	Use Existing Standards Employed by the Clinical System	N/A
		O	Patient Demographic Consumer	O	PDQm	Appendix A: PDQm Profile Overview
	Retrieve clinical data from local data sources (Patient Identifier)	R	Client (e.g., EMR)	R	Use Existing Standards Employed by the Clinical System	N/A
	Assemble and review Patient Summary	R	Client (e.g., EMR)	R	Use Existing Standards Employed by the Clinical System	N/A
	Update Current Valuesets and ConceptMaps	O	Client (e.g., EMR)	O	SVCM	Appendix A: SVCM Profile Overview
	Omit or Mask Data based on Jurisdictional Policy	O	Client (e.g., EMR)	O	Jurisdictional Requirement	N/A
	Save PS-CA to Document Repository	R	Client (e.g., EMR)	R	Use Existing Standards Employed by the Clinical System	N/A
		R	Document Source	R	MHD	Appendix A: MHD Profile Overview
Document Repository (Local to PS-CA Producer or Central)	Save PS-CA to Document Repository	R	Document Recipient	R	MHD	Appendix A: MHD Profile Overview

Updated

The Use Case Actors and the Services they support are described in the following table. Services may be **Required 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

©2022 CANADA HEALTH INFOWAY

Canada Health Infoway

Content Data Model

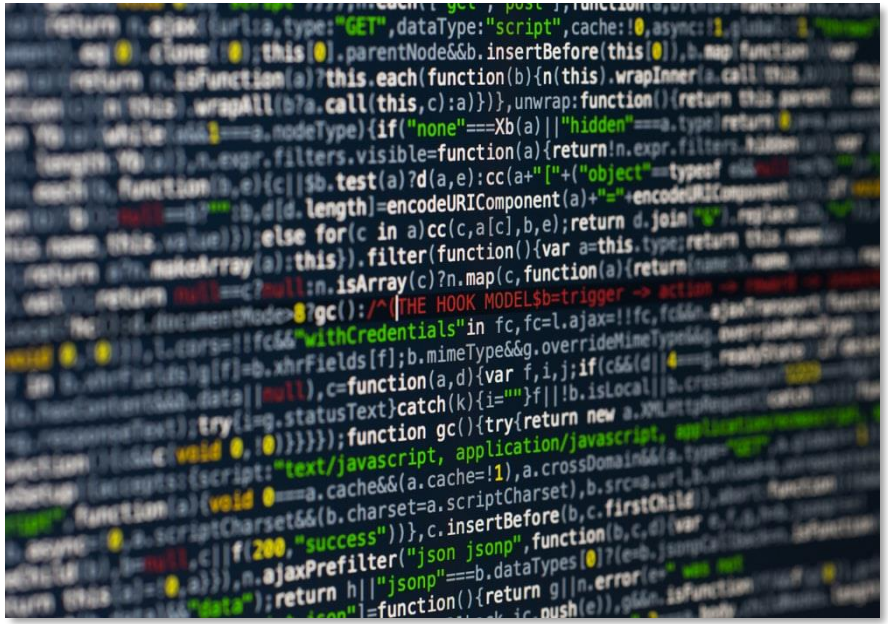
Overview

Content Data Model

An overview

Purpose

- Defines the Patient Summary-CA content data model and provides the required Implementation Guidance
- This section of the specification defines each data element, cardinality, data type, constraints, and code system references - all of the details needed for two systems to be semantically interoperable with each other



Intended Audience

- Solution Developers

©2022 CANADA HEALTH INFOWAY

Canada Health Infoway

Cross-jurisdictional PS-CA Building Blocks Prioritization

Patient Summary-CA: Data Domains of Interest by Canadian Jurisdiction and Release

	IPS-UV		PS- CA	AB	BC	MB	NL	ON	SK	Release 1	Release 2+
Header	Subject	Header	Subject								+
Header	Author	Header	Author								+
Header	Attester	Header	Attester								+
Header	Custodian	Header	Custodian								+
Required	Medication Summary	Recommended	Medication Summary								+
Required	Allergies and Intolerances	Recommended	Allergies and Intolerances								+
Required	Problem List	Recommended	Problem List								+
Recommended	Immunizations	Recommended	Immunizations								+
Recommended	History of Procedures	Recommended	History of Procedures								+
Recommended	Medical Devices	Recommended	Medical Devices								
Recommended	Diagnostic Results	Recommended	Diagnostic Results								
Optional	Vital Signs	Optional	Vital Signs								+
Optional	Past history of Illness	Optional	Past History of Illness								+
Optional	Social History	Optional	Social History								+
Optional	Advance Directives	Optional	Advance Directives								
Optional	Pregnancy	Optional	Pregnancy								
Optional	Functional Status	Optional	Functional Status								
Optional	Plan of Care	Optional	Plan of Care								
		EXT	Extension(s)								
		EXT	Family History								

Notes:
- Coordinating table discussion for October 7th: Approval to move Medical Devices and Diagnostic Results to Release 2.
- Release 1: Includes the highlighted data domains.
- Release 2: Includes the data domains from Release 1, including Release 2 roadmap items, and the highlighted data domains that were not included in Release 1.

Infoway has orchestrated a collaborative process to
- reach consensus on priorities
- consolidate requirements
- conduct detailed data analysis to understand jurisdictional needs and the required flexibility for the design of PS-CA building blocks

©2022 CANADA HEALTH INFOWAY

Canada Health Infoway

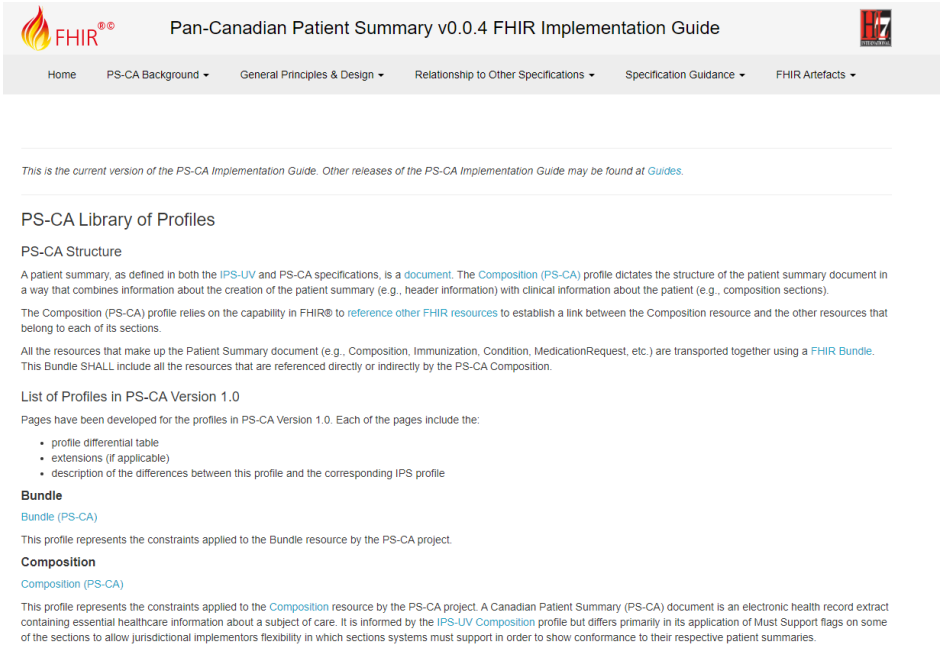
The pan-Canadian Patient Summary FHIR Implementation Guide & HL7 FHIR® Profiles

An overview

Updated

- **The pan-Canadian Patient Summary - FHIR Implementation Guide** is an implementable, testable specification for the FHIR composition that defines the data payload of the PS-CA specification and is based on the HL7 FHIR IPS implementation guide
- **The PS-CA FHIR Profiles** are implementable, testable data content models that reflect configurable building blocks for creating a well formed pan-Canadian Patient Summary as a FHIR document

Link to PS-CA FHIR bundle



©2022 CANADA HEALTH INFOWAY

Canada Health Infoway

PS-CA Companion Guide to Reference Architecture

Actors & Transactions

Companion Guide: Reference Architecture

An overview PS-CA Actors and Transactions

Purpose

- Helps define the interoperability landscape and relevant services
- Provides guidance on how to apply specific patterns and integration profiles to addressing interoperability needs

Intended Audience

- IT departments of healthcare institutions
- Technical staff of participating vendors
- Experts involved in standards development
- Individuals and teams responsible for software implementations
- CTOs, CMIOs, CIOs, PTs and Vendors

©2022 CANADA HEALTH INFOWAY

Canada Health Infoway

Reference Architecture that Supports PS-CA

An overview of the recommended PS-CA Actors and Transactions

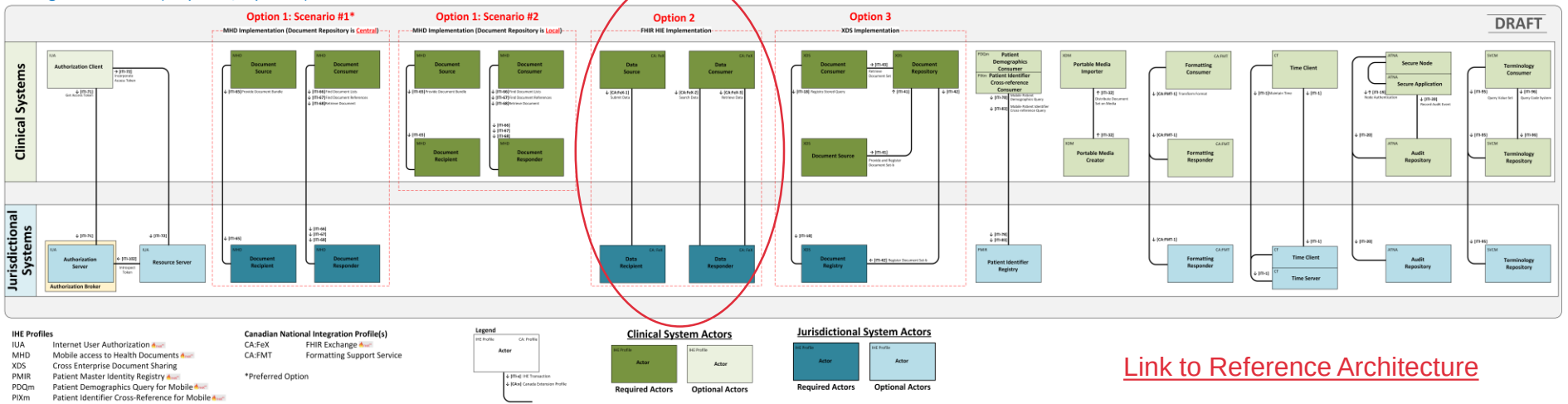
Updated

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. **Required 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)

Canada Health Infoway



IHE Profiles

IUA	Internet User Authorization
MHD	Mobile access to Health Documents
XDS	Cross Enterprise Document Sharing
PMIR	Patient Master Identity Registry
PDQm	Patient Demographics Query for Mobile
PIXm	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:FeX	FHIR Exchange
CA:FMT	Formatting Support Service

*Preferred Option

Legend

Clinical System Actors: Required Actors, Optional Actors

Jurisdictional System Actors: Required Actors, Optional Actors

[Link to Reference Architecture]

©2022 CANADA HEALTH INFOWAY

Canada Health Infoway

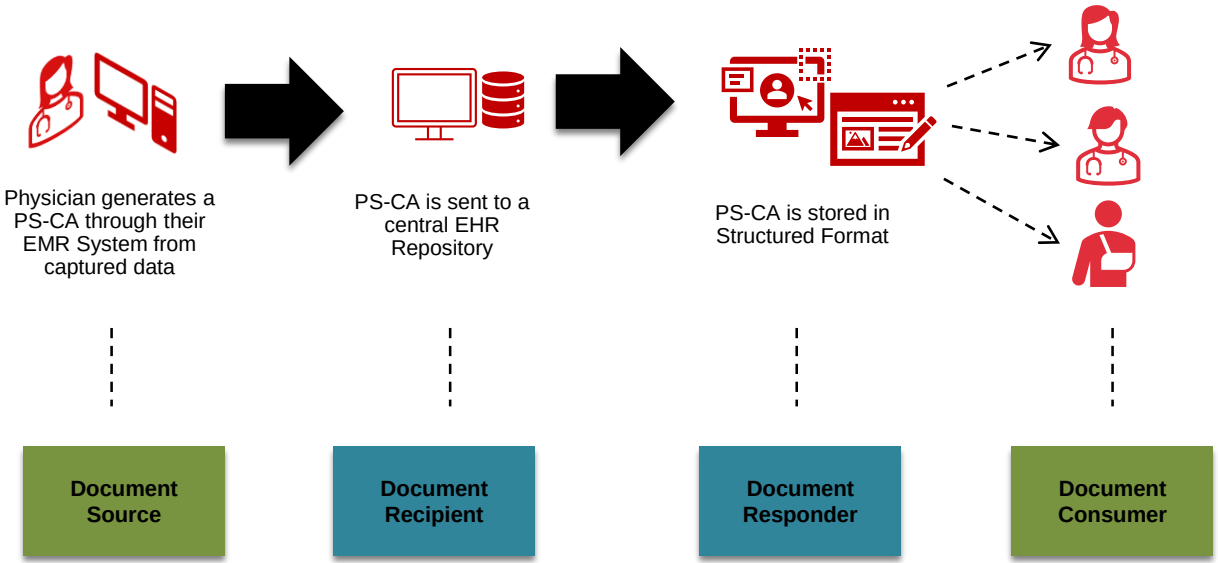
Proposed Reference Architecture that Supports PS-CA

Main Actors used in the Specification

ILLUSTRATIVE

Tying Reference Architecture to Use Cases.

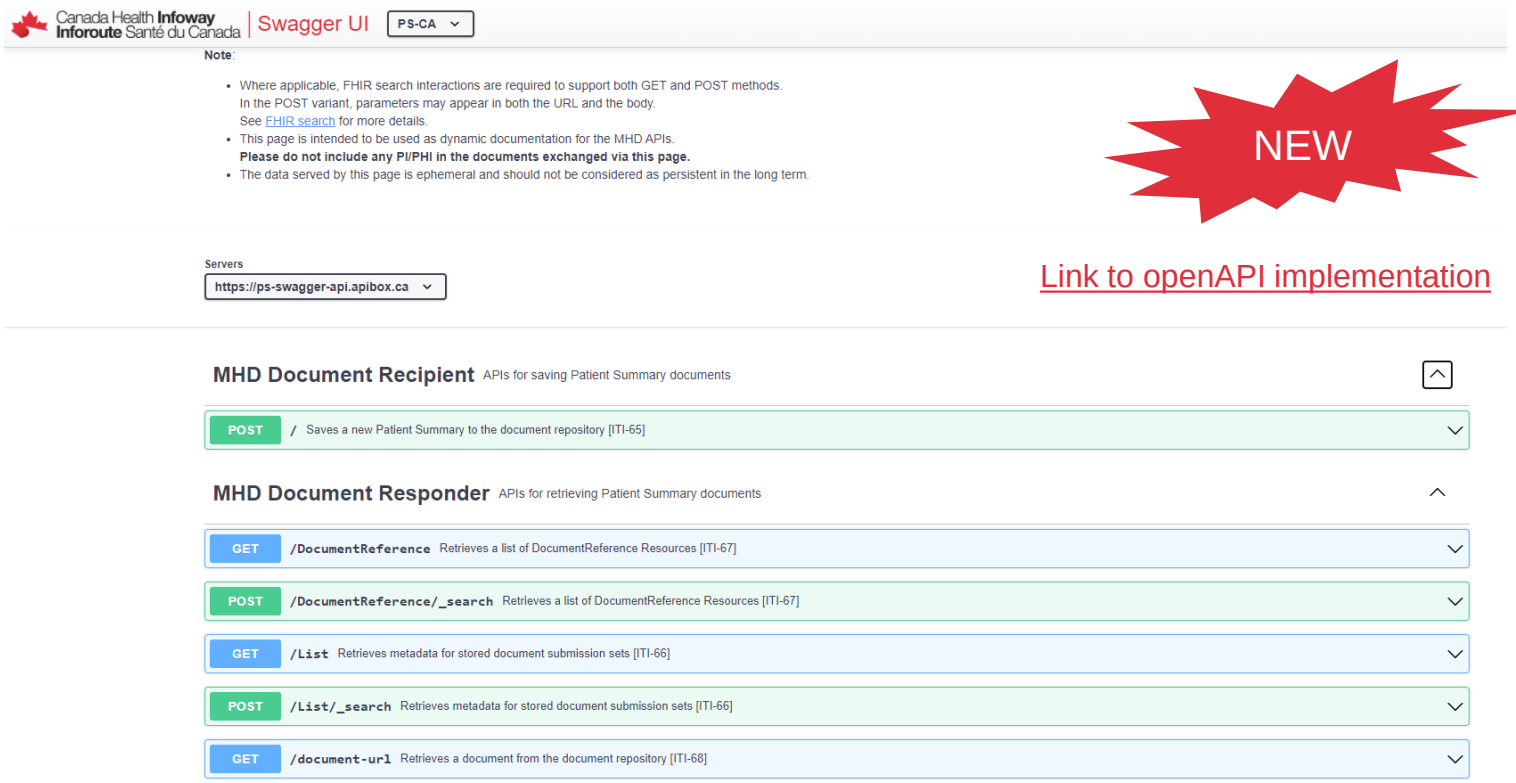
Example: A physician generates and sends Patient Summary (PS) to Central Document Repository



©2022 CANADA HEALTH INFOWAY

Canada Health Infoway

Development aids to Specifications

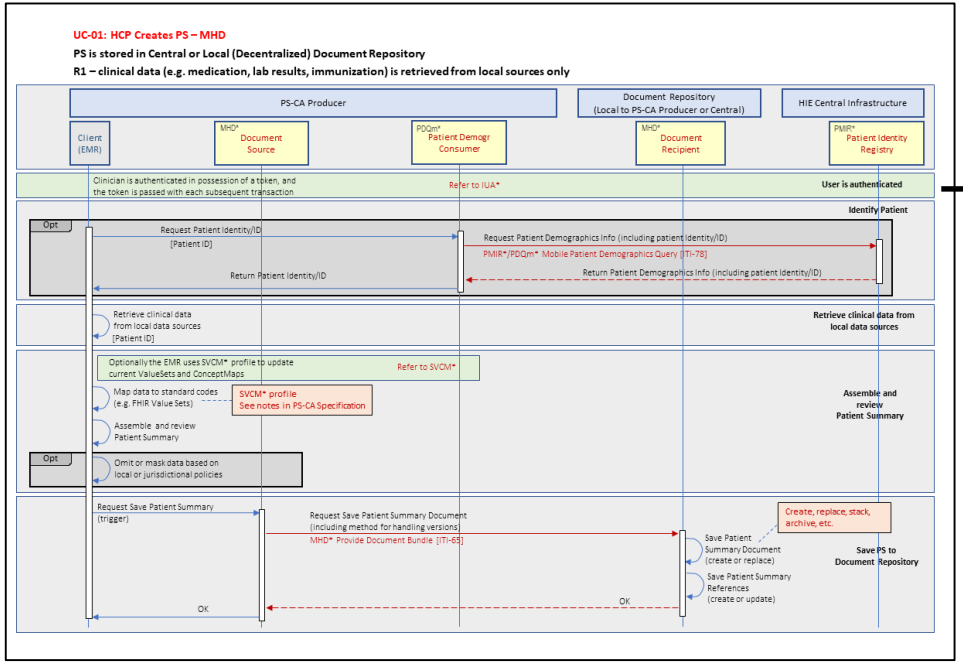


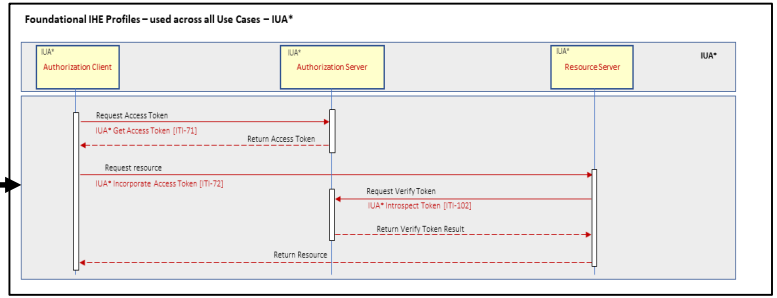
©2022 CANADA HEALTH INFOWAY

UC-01: Sequence Diagrams

Sample from the Specification document

ILLUSTRATIVE





The **IUA* (Internet User Authorization)** provides support for authorization to access resources when using HTTP RESTful transports, by managing authorization tokens.
The Authorization Client must have a valid token that must be presented to resource server with every request

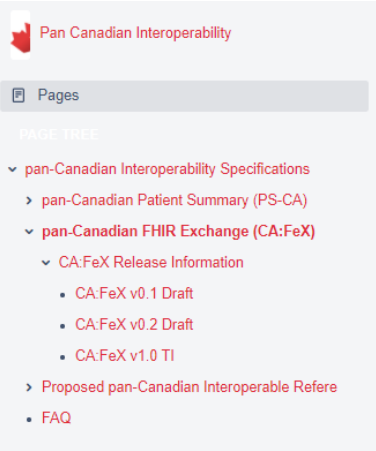
- Get Access Token [ITI-71] – performed when Client does not yet have a token or when token is expired
- Incorporate Access Token [ITI-72] – the client must include the token with every request
- Introspect Token [ITI-102] – the resource server must introspect token at every request

©2022 CANADA HEALTH INFOWAY

Canada Health Infoway

Canadian FHIR Exchange CA:FeX Specifications

Overview of v0.1

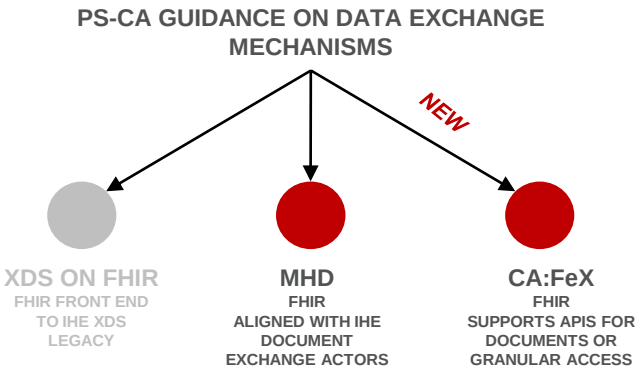


Canadian FHIR Exchange Specification (CA:FeX)

Why is CA:FeX needed?

- Feedback from multiple provinces and vendors indicates a need for an alternative to the IHE MHD (FHIR) profile, which is part of the IHE IPS specification.
- This new option is needed as a simpler mechanism to implement exchange of documents or discrete data within documents.

In response to this request, CA:FeX will be introduced as a new data exchange option in PS-CA v0.2.



Consistent with PS-CA Use Cases

FHIR-based approach will address the original PS-CA use cases.

Applicable to any FHIR Document

Documentation will apply to Patient Summaries but will be applicable to any FHIR-based document.

International Market Alignment

Approach will be consistent with existing international efforts to document FHIR interface health information exchange patterns.

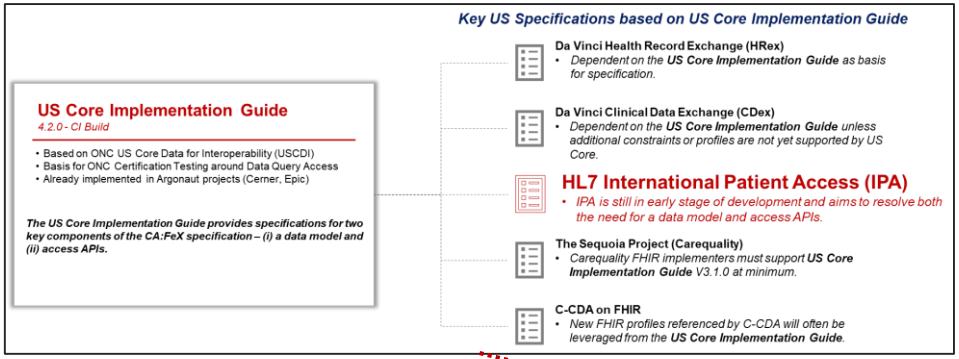
Aligned with Current Canadian Market

Responsive to feedback from jurisdictions and vendors for an alternative to MHD, which is simpler to implement and better aligned with an API approach and FHIR enabled data repositories.

©2022 CANADA HEALTH INFOWAY

Canada Health Infoway

International Scan: Coordination Table Recommendation



LEVERAGE US BASED HL7 IMPLEMENTATION GUIDE

CANADIAN JURISDICTIONAL FHIR IMPLEMENTATION GUIDE

CA:FEX

IMMEDIATE TERM

The initial phase will take a document-based focus to address the immediate requirements / commitments for the PS-CA.

FORWARD-LOOKING

Looking to the future, the standard will emphasize a more granular data exchange, creating a complete data model (similar to the US Core), and enhancing the RESTful APIs.

Further, we will aim to leverage emerging identity / security frameworks as they mature.

©2022 CANADA HEALTH INFOWAY

Canada Health Infoway

The CA:FeX Interoperable Specification

Link to Release Page

CA:FeX Releases

The following table contains a list of the CA:FeX Releases. To read the details of a specific release, including release notes, click on the Release Title name to be re-directed to the specific page containing the release details.

Release Title	Release Date	Release Type	Open Review Period	Published Content	Download Specifications (PDF)
CA:FeX v0.1 Draft	January 28, 2022	Draft	January 28 - February 14, 2022	CA:FeX Interoperability Specifications v0.1	CA:FeX Interoperability Specifications v0.1
CA:FeX v0.2 Draft	March 9, 2022	Draft	March 9 - March 23, 2022		
CA:FeX v1.0 TI	April 15, 2022	Trial Implementation	N/A		

General Release Information

The pan-Canadian FHIR Exchange (CA:FeX) Interoperability Specifications are published to a public space within InfoScribe and are also available as a downloadable document. A link to the online published content and the downloadable documentation will be published with each release.

Release information for each release is contained in the corresponding CA:FeX Release page. Please refer to the CA:FeX Releases table above for links to specific release content.

©2022 CANADA HEALTH INFOWAY

Canada Health Infoway

The CA:FeX Interoperable Specification

Sample from the Specification document

NEW

Table 1 Interoperability Conformance Requirements for Use Case 1: Create and Submit Document

USE CASE 1: Create and Submit Document			MAPPING TO SECTIONS FROM THIS AND REFERENCED INTEROPERABILITY SPECIFICATIONS			
USE CASE ACTOR	SERVICE SUPPORTED	OPT	TECHNICAL ACTOR	OPT	PROFILE/ STANDARD	REFERENCED SPECIFICATION AND STANDARDS
Producer	Authenticate User	O	Client (e.g. EMR)	O	Internet User Assertion (IUA)	Refer to IUA: Revision 2.1 - Trial Implementation
	Identify Patient	O	Client (e.g. EMR)	O	Use Existing Standards Employed by the Clinical System	N/A
		O	Patient Demographic Consumer	O	PDQm	Refer to PDQm: v2.3.0: Trial Implementation based on FHIR R4
	Retrieve Clinical Data (Patient Identifer)	R	Client (e.g. EMR)	R	Use Existing Standards Employed by the Clinical System	N/A
	Assemble and Review Document	R	Client (e.g. EMR)	R	Use Existing Standards Employed by the Clinical System	N/A
	Omit or Mask Data based on Jurisdictional Policy	O	Client (e.g. EMR)	O	Jurisdictional Requirement	N/A
	Save Document to Clinical Data Repository	R	Client (e.g. EMR)	R	Use Existing Standards Employed by the Clinical System	N/A
		R	Data Source	R	CA:FeX	Refer to Submit a Document in the Exchanging Documents in FHIR section.
Clinical Data Repository (Central)	Save Bundle to Clinical Data Repository	R	Data Recipient	R	CA:FeX	Refer to Submit a Document in the Exchanging Documents FHIR section.
Central Infrastructure	Identify Patient	O	Patient Identity Registry	O	PMIR	Refer to PMIR: Revision 1.3 – Trial Implementation

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

This table provides the mapping for the Use Case Actor to the detailed specifications that systems shall implement to exchange FHIR documents (structured or unstructured).

Link to Interoperable Specification

©2022 CANADA HEALTH INFOWAY

Canada Health Infoway

Summary

PS-CA and CA:FeX now available for public review

From January 28 to February 14, 2022

- Download the PS-CA specifications in PDF format OR review the specifications in InfoScribe, via the PS-CA Release page.
- Download the CA:FeX specifications in PDF format OR review the specifications in InfoScribe, via the CA:FeX Release page.
- How to submit your feedback:
  - Use the **Public Review Comments PS-CA v0.2** spreadsheet, available here.
  - Send an email to standards@infoway-inforoute.ca, with Subject Line "PS-CA", including the Comments spreadsheet as an attachment.
  - Use the **Public Review Comments CA:FeX v0.1** spreadsheet, available here.
  - Send an email to standards@infoway-inforoute.ca, with Subject Line "CA:FeX", including the Comments spreadsheet as an attachment.
- We kindly ask that each organization submit all comments within one spreadsheet submission, per specification.
- Upon submission, you will receive an acknowledgement email with a reference number. Our team will complete a review of all comments, determine the appropriate disposition for each item and incorporate changes and backlog items into the release notes for the next version.
- For questions, please contact us at standards@infoway-inforoute.ca

Canada Health Infoway

Q & A

Canada Health Infoway

Thank You

amestre@Infoway-inforoute.ca

VISIT OUR WEBSITE
infoway-inforoute.ca

VISIT OUR SURVEY WEBSITE
insights.infoway-inforoute.ca/

LET'S CONNECT ON LINKEDIN
linkedin.com/company/canada-health-infoway/

LET'S CONNECT ON TWITTER
@infoway

Pan-Canadian Patient Summary Interoperability Specifications (PS-CA Specifications)
An implementable, testable specification, based on the IHE International Patient Summary specification. It defines building blocks to create and share condition-independent and specialty-agnostic patient summaries, irrespective of the condition of the patient or the treatment sought or specialty of the provider delivery care. PS-CA building blocks are configurable to address necessary Canadian jurisdictional variances. A patient summary is a health record extract, at a point in time, comprised of a standardized collection of clinical and contextual information (retrospective, concurrent, prospective), including the minimum necessary and sufficient data to inform a patient's treatment at the point of care.
The PS-CA implementable specification contains the information necessary for an implementer to consume and develop the components necessary for creating, consuming and sharing a Patient Summary.
Target Audience: Solution Developers

pan-Canadian Patient Summary – FHIR Implementation Guide
An implementable, testable specification for the HL7 FHIR composition that defines the data payload of the PS-CA specification, based on the HL7 FHIR IPS implementation guide. It contains information for solution developers to implement the PS-CA content data model using the HL7® Fast Healthcare Interoperability Resources (FHIR®) standard. It describes the data elements & types, cardinality, constraints, and code system references - all of the details needed for two systems to be semantically interoperable with each other when a PS-CA compliant patient summary is exchanged.
Target Audience: Solution Developers

pan-Canadian Patient Summary - Companion Guide to Use Cases & Definitions
The pan-Canadian Patient Summary - Companion Guide to Use Cases & Definitions, is a companion document to the pan-Canadian Patient Summary Interoperability Specification that presents the broader context for clinical, business, interoperability and solution development considerations that were discovered during the development of the PS-CA. It defines the healthcare problem that the PS-CA addresses and includes healthcare use cases and interoperability requirements in terms that will be traceable to the content in the pan-Canadian Patient Summary - Companion Guide to Reference Architecture, which defines the actors and their interactions with other actors and the pan-Canadian Patient Summary – FHIR Implementation Guide, which defines the contents and semantic interoperability of the PS-CA.
This document will also support upcoming releases and roadmap elements of the PS-CA specification.
Target Audience: CTOs, CMIOs, CIOs, PTs and vendors

pan-Canadian Patient Summary - Companion Guide to Reference Architecture
The pan-Canadian Patient Summary - Companion Guide to Reference Architecture contains background information on the abstracted PS-CA actors and transactions for the Pan-Canadian Patient Summary Interoperable Specifications for stakeholders who are not familiar with the IHE Methodology. It describes baseline information on the recommended IHE profiles and includes links to the IHE source documentation where stakeholders can get additional details on each PS-CA actor and transaction. This document also includes descriptions of alternatives and choices for implementation patterns and ecosystem architectures to support the Patient Summary-CA in current state, including sequence diagrams that demonstrate the relationship and dependencies between the PS-CA actors and transactions.
Target Audience: CTOs, CMIOs, CIOs, PTs and vendors

©2022 CANADA HEALTH INFOWAY

Cross-jurisdictional Priority Building Blocks

Medication Summary	Contains a description of the patient's medications relevant for the scope of the patient summary. The actual content could depend on the jurisdiction, it could report: -the currently active medications; -the current and past medications considered relevant by the authoring GP; -the patient prescriptions or dispensations automatically extracted by a regional or a national EHR. All cases documented as medication statements. This section requires either an entry indicating the subject is known not to be on any relevant medication; either an entry indicating that no information is available about medications; or entries summarizing the subject's relevant medications.
Allergies & Intolerances	Relevant allergies or intolerances (conditions) for a patient, describing the kind of reaction (e.g. rash, anaphylaxis,..); preferably the agents that cause it; and optionally the criticality and the certainty of the allergy. If no information about allergies is available, or if no allergies are known, this should be clearly documented in the section. At a minimum, it should list currently active and any relevant historical allergies and adverse reactions.
Problem list	Lists and describes clinical problems or conditions currently being monitored for the patient.
Immunizations	Defines a patient's current immunization status and pertinent immunization history. The primary use case is to enable communication of a patient's immunization status. The section includes current immunization status, and may contain the entire immunization history that is relevant to the period of time being summarized.
History of Procedures	Description of the patient past procedures that are pertinent to the scope of the IPS. Procedures may refer, for example, to: • Invasive Diagnostic procedure: e.g. Cardiac catheterization (the results of these procedure are documented in the results section) • Therapeutic procedure: e.g. dialysis • Surgical procedure: e.g. appendectomy
Medical Devices	Narrative text and coded entries describing the patient history of medical device use.
Diagnostic Results	Relevant observation results collected on the patient or produced on in-vitro biologic specimens collected from the patient. PS-CA supports alternative entries: results from laboratory, imaging, pathology and a generic result entry.

©2022 CANADA HEALTH INFOWAY

Cross-jurisdictional Optional Building Blocks

Vital Signs	Includes blood pressure, body temperature, heart rate, and respiratory rate. May also include other clinical findings, such as height, weight, body mass index, head circumference, and pulse oximetry. In particular, notable vital signs or physical findings such as the most recent, maximum and/or minimum, baseline, or relevant trends may be included.
Past History of Illness	Contains a description of the conditions the patient suffered in the past.
Family and Social History	Conditions the patient's parents or siblings have suffered in the past. Social history such as tobacco use, alcohol use.
Advanced directives	Narrative description of patient's advance directive.
Pregnancy	Pregnancy status and history is comprised of: - an entry as an Observation of the pregnancy status, and optionally, a member Observation of the Estimated Delivery Date - an entry as an Observation of the pregnancy history (summary)
Functional Status	Narrative description of the patient's capability to perform acts of daily living, including possible needs to be continuously assessed by third parties. The invalidity status may influence decisions about how to administer treatments. Profiles to express disabilities and functional assessments will be specified by future versions of this guide.
Plan of care	Narrative description of the expectations for care including proposals, goals, and order requests for monitoring, tracking, or improving the condition of the patient.

©2022 CANADA HEALTH INFOWAY