



Finding, Using, Shaping
Pan-Canadian FHIR Standards:
Bases, Cores & Mores

Agenda

Finding, Using, Shaping
Pan-Canadian FHIR
Standards:
Bases, Cores & Mores

University of Victoria
Workshop in Health
Information Exchange

Agenda & Introductions	5 minutes
Why Don't We Just Use FHIR Out-of-the-Box?	10 minutes
Why Leverage Pan-Canadian Standards?	10 minutes
How do Pan-Canadian Specifications Get Developed?	10 minutes
What Pan-Canadian FHIR Specifications Exist?	35 minutes
How Do You Use Them? (JIST)	10 minutes
Resources to Help You Get Started	5 minutes
Questions?	Remaining



Introductions



Sheridan Cook

Data & AI Manager, Accenture Consulting
(formerly Gevity Consulting)

- Background in HIE Service Development & Patient Access APIs
- Assists clients in developing Pan-Canadian profiles/ implementation guides, and FHIR implementations
- Co-chair of Canadian FHIR Baseline working group
- Member of HL7 Canada Council



Irfan Hakim

Data & AI Consultant, Accenture Consulting
(formerly Gevity Consulting)

- Background mental health, digital solution evaluation, and patient centred care
- Assists clients in developing Pan-Canadian profiles/ implementation guides, and FHIR implementations
- Co-chair of SMART-on-FHIR working group
- Faculty at University of Toronto



Why Don't We Just Use FHIR Out-of-the-Box?

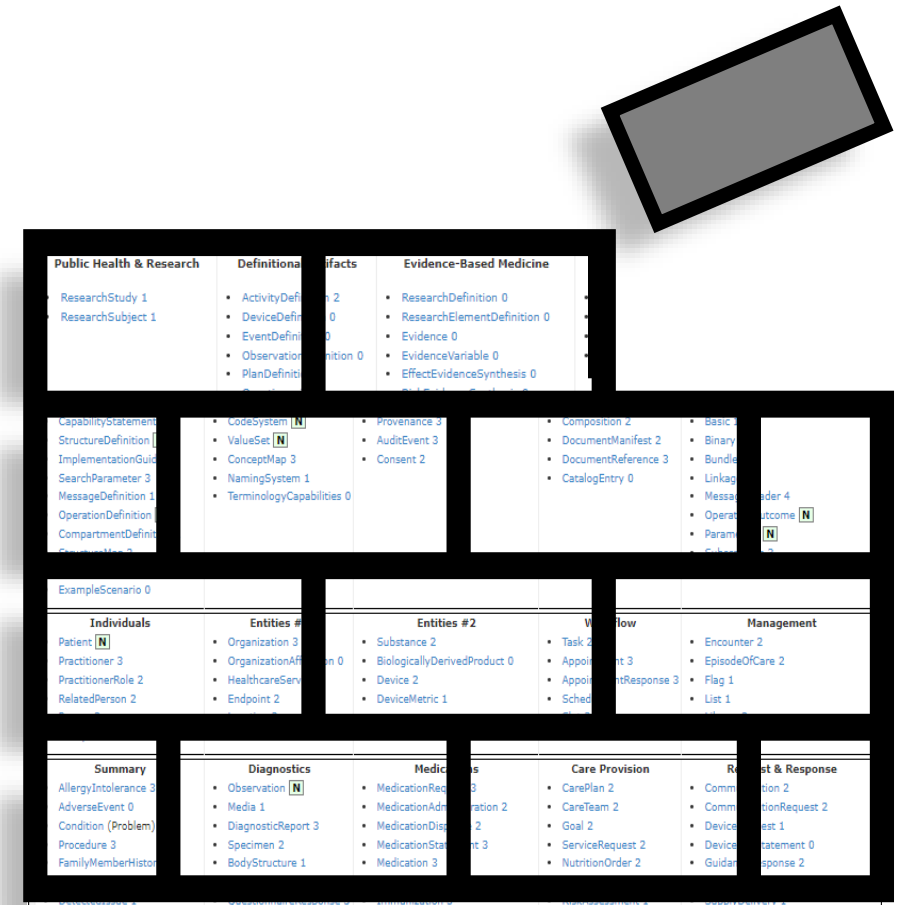
FHIR as a Platform Standard

FHIR Base Specification = “building blocks”, whose defined data elements are expected to be encountered in 80% of systems around the world

Resources that are intended to support broad range of activities: Clinical Care, Patient Access, Pharmacy, Transitions of Care, Administrative Workflows, Insurance & Billing, Public Health, Research Trials, etc.

FHIR Base Specification is international - intentionally avoids region-specific code systems & business rules (based on policy)

Expects implementations to constrain and extend the building blocks to meet their specific needs



Making use of a Platform Specification

Name	Flags	Card.	Type	Description & Constraints
Encounter	TU		DomainResource	An interaction during which services are provided to the patient Elements defined in Ancestors: id, meta, implicitRules, language, text, contained, extension, modifierExtension
identifier	Z	0..*	Identifier	Identifier(s) by which this encounter is known
status	71 Z	1..1	code	planned arrived triaged in-progress onleave finished cancelled + EncounterStatus (Required)
statusHistory		0..*	BackboneElement	List of past encounter statuses
status		1..1	code	planned arrived triaged in-progress onleave finished cancelled + EncounterStatus (Required)
period		1..1	Period	The time that the episode was in the specified status
class	Z	1..1	Coding	Classification of patient encounter
classHistory		0..*	BackboneElement	V3 Value SetActEncounterCode (Extensible) List of past encounter classes
class		1..1	Coding	inpatient outpatient ambulatory emergency + V3 Value SetActEncounterCode (Extensible)
period		1..1	Period	The time that the episode was in the specified class
type	Z	0..*	CodeableConcept	Specific type of encounter Encounter type (Example)
serviceType	Z	0..1	CodeableConcept	Specific type of service Service type (Example)
priority		0..1	CodeableConcept	Indicates the urgency of the encounter V3 Code System ActPriority (Example)
subject	Z	0..1	Reference(Patient Group)	The patient or group present at the encounter
episodeOfCare	Z	0..*	Reference(EpisodeOfCare)	Episode(s) of care that this encounter should be recorded against
basedOn		0..*	Reference(ServiceRequest)	The ServiceRequest that initiated this encounter
participant	Z	0..*	BackboneElement	List of participants involved in the encounter
type	Z	0..*	CodeableConcept	Role of participant in encounter Participant type (Extensible)
period		0..1	Period	Period of time during the encounter that the participant participated
individual	Z	0..1	Reference(Practitioner PractitionerRole RelatedPerson)	Persons involved in the encounter other than the patient
appointment	Z	0..*	Reference(Appointment)	The appointment that scheduled this encounter
period		0..1	Period	The start and end time of the encounter
length		0..1	Duration	Quantity of time the encounter lasted (less time absent)
reasonCode	Z	0..*	CodeableConcept	Coded reason the encounter takes place Encounter Reason Codes (Preferred)
reasonReference	Z	0..*	Reference(Condition Procedure Observation ImmunizationRecommendation)	Reason the encounter takes place (reference)
diagnosis	Z	0..*	BackboneElement	The list of diagnosis relevant to this encounter
condition	Z	1..1	Reference(Condition Procedure)	The diagnosis or procedure relevant to the encounter
use		0..1	CodeableConcept	Role that this diagnosis has within the encounter (e.g. admission, billing, discharge ...) DiagnosisRole (Preferred)
rank		0..1	positiveInt	Ranking of the diagnosis (for each role type)
account		0..*	Reference(Account)	The set of accounts that may be used for billing for this Encounter
hospitalization		0..1	BackboneElement	Details about the admission to a healthcare service
preAdmissionIdentifier		0..1	Identifier	Pre-admission identifier
origin		0..1	Reference(Location Organization)	The location/organization from which the patient came before admission
admitSource		0..1	CodeableConcept	From where patient was admitted (physician referral, transfer) Admit source (Preferred)
reAdmission		0..1	CodeableConcept	The type of hospital re-admission that has occurred (if any). If the value is absent, then this is not identified as a readmission v2 RE-ADMISSION INDICATOR (Example)
dietPreference		0..*	CodeableConcept	Diet preferences reported by the patient Diet (Example)
specialCourtesy		0..*	CodeableConcept	Special courtesies (VIP, board member) Special courtesy (Preferred)
specialArrangement		0..*	CodeableConcept	Wheelchair, translator, stretcher, etc. Special arrangements (Preferred)
destination		0..1	Reference(Location Organization)	Location/organization to which the patient is discharged
dischargeDisposition		0..1	CodeableConcept	Category or kind of location after discharge Discharge disposition (Example)
location		0..*	BackboneElement	List of locations where the patient has been
location		1..1	Reference(Location)	Location the encounter takes place
status		0..1	code	planned active reserved completed EncounterLocationStatus (Required)
physicalType		0..1	CodeableConcept	The physical type of the location (usually the level in the location hierarchy - bed room ward etc.) Location type (Example)
period		0..1	Period	Time period during which the patient was present at the location
serviceProvider		0..1	Reference(Organization)	The organization (facility) responsible for this encounter
partOf		0..1	Reference(Encounter)	Another Encounter this encounter is part of

In FHIR base specification – most elements are considered optional – it’s a guide to how concepts can be modeled but not intended to be implemented out of the box

Profiling – allows implementors to further restrict and extend the base specification to meet and enforce their specific needs. Examples include:

- Rules about which resource elements are or are not used, and what additional elements are added that are not part of the base specification
- Rules about which API features are used, and how
- Rules about which terminologies are used in particular elements
- Descriptions of how the Resource elements and API features map to local requirements and/or implementations

Note that because of the nature of the healthcare ecosystem, there may be multiple overlapping sets of adaptations - by healthcare domain, by country, by institution, and/or by vendor/implementation.

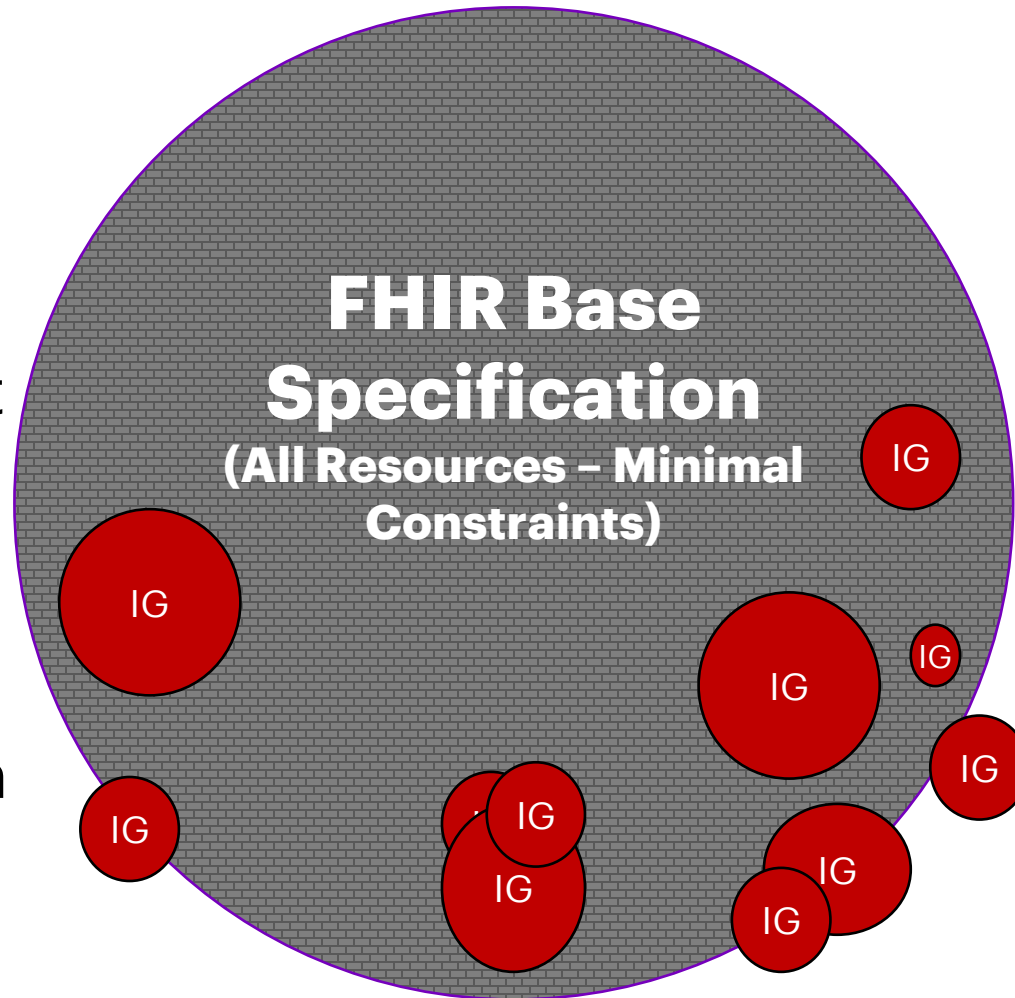
<https://www.hl7.org/fhir/profiling.html#5.1.0>



What are the limitations of the FHIR Base Specification?

Each implementor builds an Implementation Guides (IG) that uses those blocks to meet their needs

Starting from base specification is like starting from scratch each time

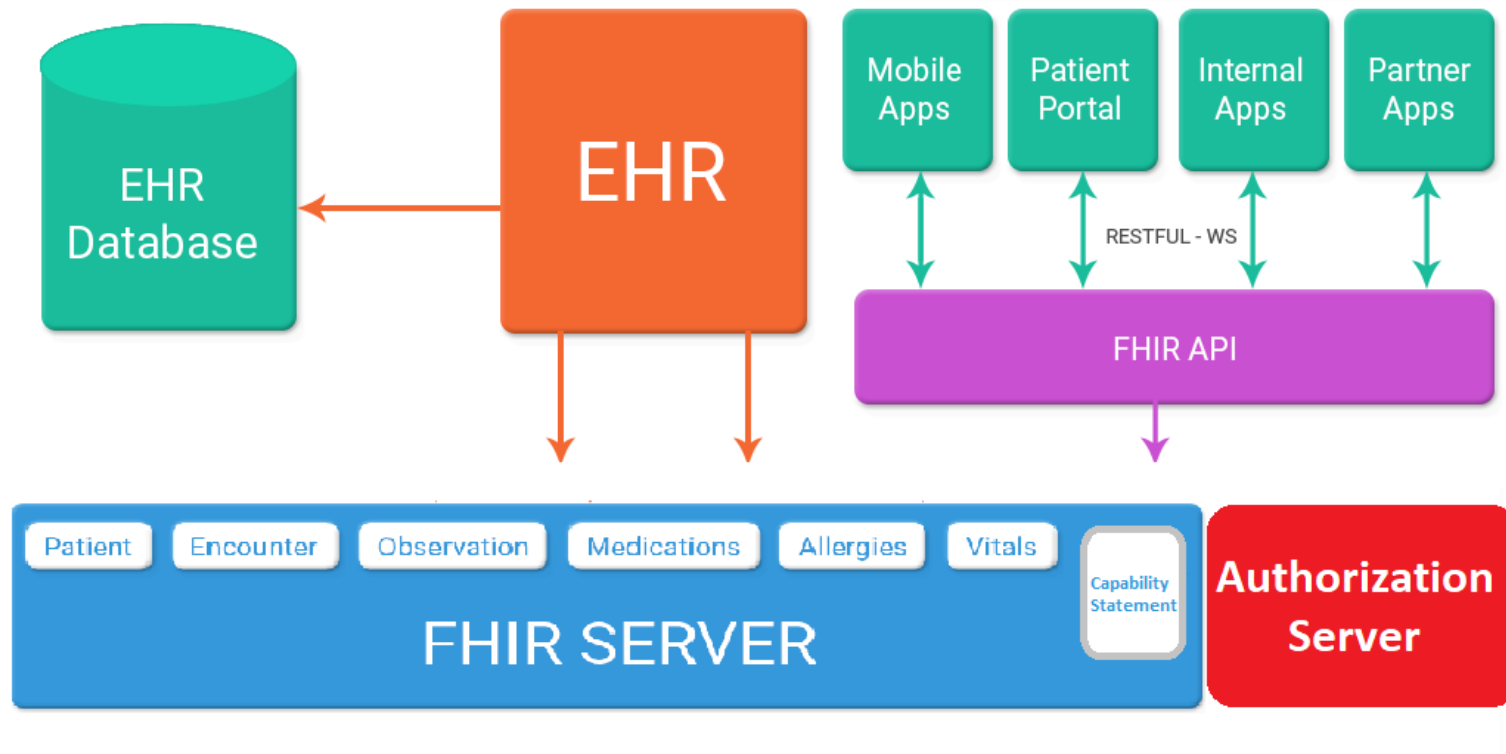


Lack of alignment between IGs operating in same countries and domains

We all need customization, but we aren't leveraging each other's efforts



What's the big deal about our FHIR guides not being aligned with each other?



FHIR Implementation:
FHIR can be implemented into a single system in the form of FHIR resources, servers, and FHIR APIs.

Ex: These are the rules for interacting with Hospital X EHR endpoint to do Y behavior

Question for Class: If one hospital or even jurisdiction doing discharge summaries says they want to map “date of diagnosis” in Condition.recordedDate and in another place they say it should go into Condition.onsetDateTime – what happens?

What's the big deal about our FHIR guides not being aligned with each other? EMR System APIs

<https://fhir.epic.com/Specifications?api=950>

Name	Description	Is Optional	Is Array
Condition (Condition)	An instance of the R4 Condition resource.	false	false
Types:			
Condition			
Name			
abatementDateTime (String)	Starting in the February 2024 version of Epic, if a condition has a resolved date, it appears here.	true	false
abatementPeriod (Period)	In the November 2023 and earlier versions of Epic, if a condition has a resolved date, it appears here.	true	false
extension (assertedDateTime) (Extension)	The date the condition was diagnosed.	true	true
category (CodableConcept)	For encounter-level diagnoses, this is "encounter-diagnosis". The clinical status, which can be active, resolved, or inactive. Starting in the February 2024 version of Epic, if the encounter diagnosis is linked to a problem, it uses the clinical status of the linked problem. This element is optional for encounter-level diagnoses.	false	true
clinicalStatus (CodableConcept)	External codings for the condition, if a list of codes is sent, they're listed in this element. Otherwise, this element uses the problem name from the name element.	conditional	false
code (CodableConcept)	Starting in the February 2024 version of Epic or with to November 2023, August 2023, or May 2023 version of Epic, each code also sends its display name and the provider entered problem name is sent if available.	false	false
encounter (Reference)	Reference to an Encounter resource that the diagnosis is asserted.	false	false
id (String)	The condition FHIR ID.	false	false
note (Annotation)	Free text comments.	true	true
onsetDateTime (String)	Starting in the February 2024 version of Epic, if a condition has a noted date, it appears here. In the November 2023 and earlier versions of Epic, if a condition has a noted date, it appears here.	true	false
onsetPeriod (Period)	The priority of the problem.	true	false
severity (CodableConcept)	The patient associated with the condition.	true	false
subject (Reference)	If this is on the patient's local chart, the value is "confirmed". If it is outside data, it is "unconfirmed". Starting in the February 2024 version of Epic, if the encounter diagnosis is linked to a problem, it uses the verification status of the linked problem. This element is optional for encounter-level diagnoses.	false	false
verificationStatus (CodableConcept)		true	false

<https://fhir.cerner.com/millennium/r4/clinical/summary/condition>

- Id
- Clinical status
- Verification status
- Category
- Severity
- Condition code
- Subject
 - Reference (Patient)
- Patient encounter when first recorded (only applies to diagnoses)
- Onset
 - dateTime
- Resolved date (only applies to problems and health-concerns)
 - dateTime
- Date recorded
- Who recorded the condition
 - Reference (Practitioner)
- Asserter
 - Reference (Patient | Practitioner)
- Comment/Note
- Annotation
 - author
 - time (dateTime)
 - text (markdown)

<https://fhir.meditech.com/explorer/api/uscore.STU6.Condition/2>

The following data elements will be included:

- clinicalStatus - Status
- category[] - Category
- code - Code
- subject - Patient

The following data elements will be included if available:

- verificationStatus - Verification Status
- Date of Diagnosis:
 - assertedDate
 - onsetDateTime
 - recordedDateTime
- recordedDate - Recorded Date
- abatementDate - Date of Resolution/Remission

This API is able to satisfy requests for data related to the following USCDI elements:

- [Assessment and Plan of Treatment](#)
- [Encounter Diagnosis](#)
- [Health Status Assessments](#)
- [Problems](#)

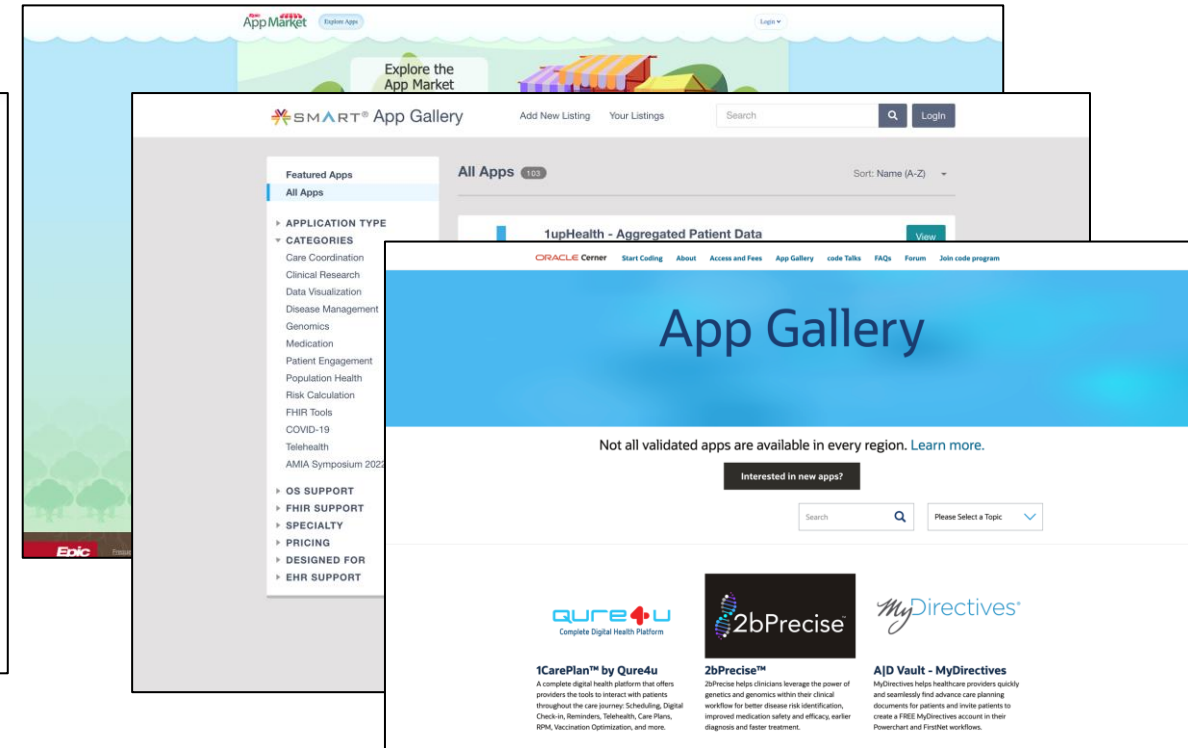
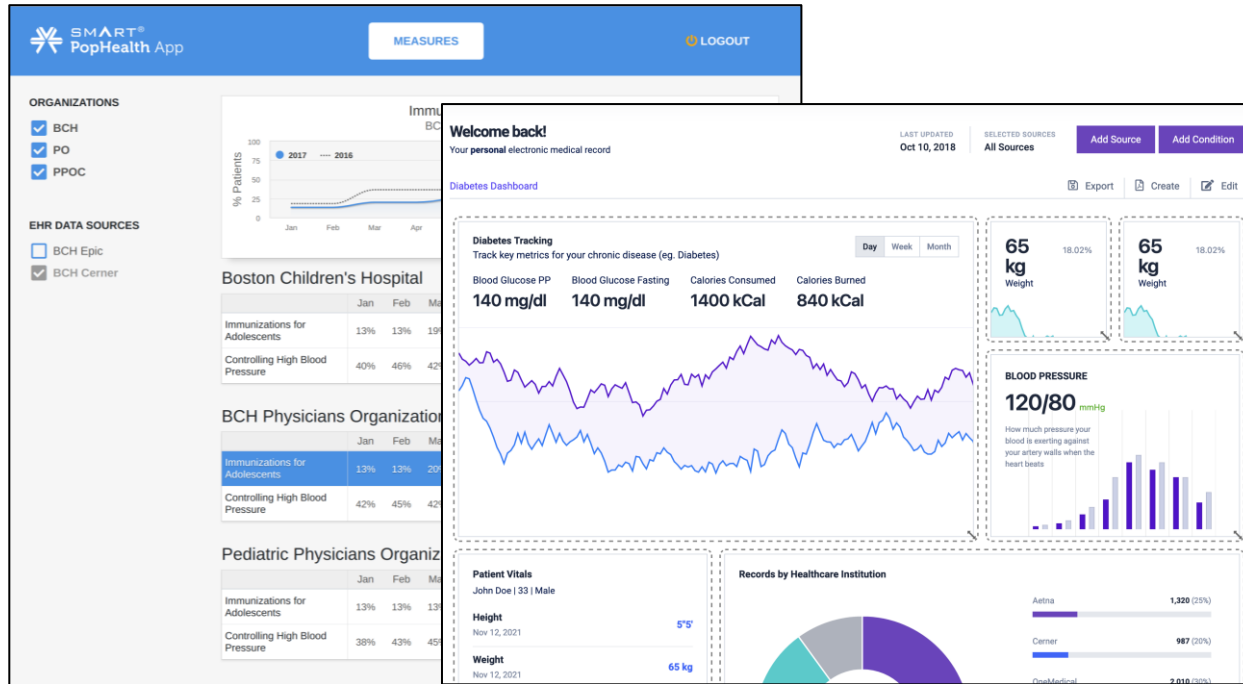
Method

GET

EMR System APIs expose the concept to different fields, some have to be customized to support all the possible fields that the concept could map to

➤ Customization costs our workplaces, provinces, and citizens more money that could go towards care

What's the big deal about our FHIR guides not being aligned with each other? Applications



Customization erodes predictability for applications and analytic solutions that want to develop once and deploy in a bunch of places

It makes it challenging for them to find and interpret data - the time they spend onboarding and tweaking could be spent delivering value to people and populations



Why Leverage Pan-Canadian Standards?

Existing Patterns/Levels for Constraining the Base Specification

FHIR Base Specification: global, use case agnostic, platform specification that includes an information model, framework for defining terminology, framework for constraining the model & defining expectations, and guidance on FHIR usage.

National Base/Baseline: a constrained version of the FHIR base specification that provides awareness of realm concepts and encourages a minimal constraints be present in IGuides. Constraints applied only where shared across implementations within the country regardless of use cases/context.

National Core: a constrained version of the FHIR base specification that defines a stricter set of conformance requirements that enforce system alignment to a prescribed set of profiles and interactions. Typically, profiles are tied by broad use cases (e.g., allow patient access to data via APIs) and are informed and driven by regulatory and/or contractual agreements.

Domain: a constrained version of the FHIR base specification (sometimes constraining a core) that define the data model, interactions, and exchange expectations for a particular use case or type of data.

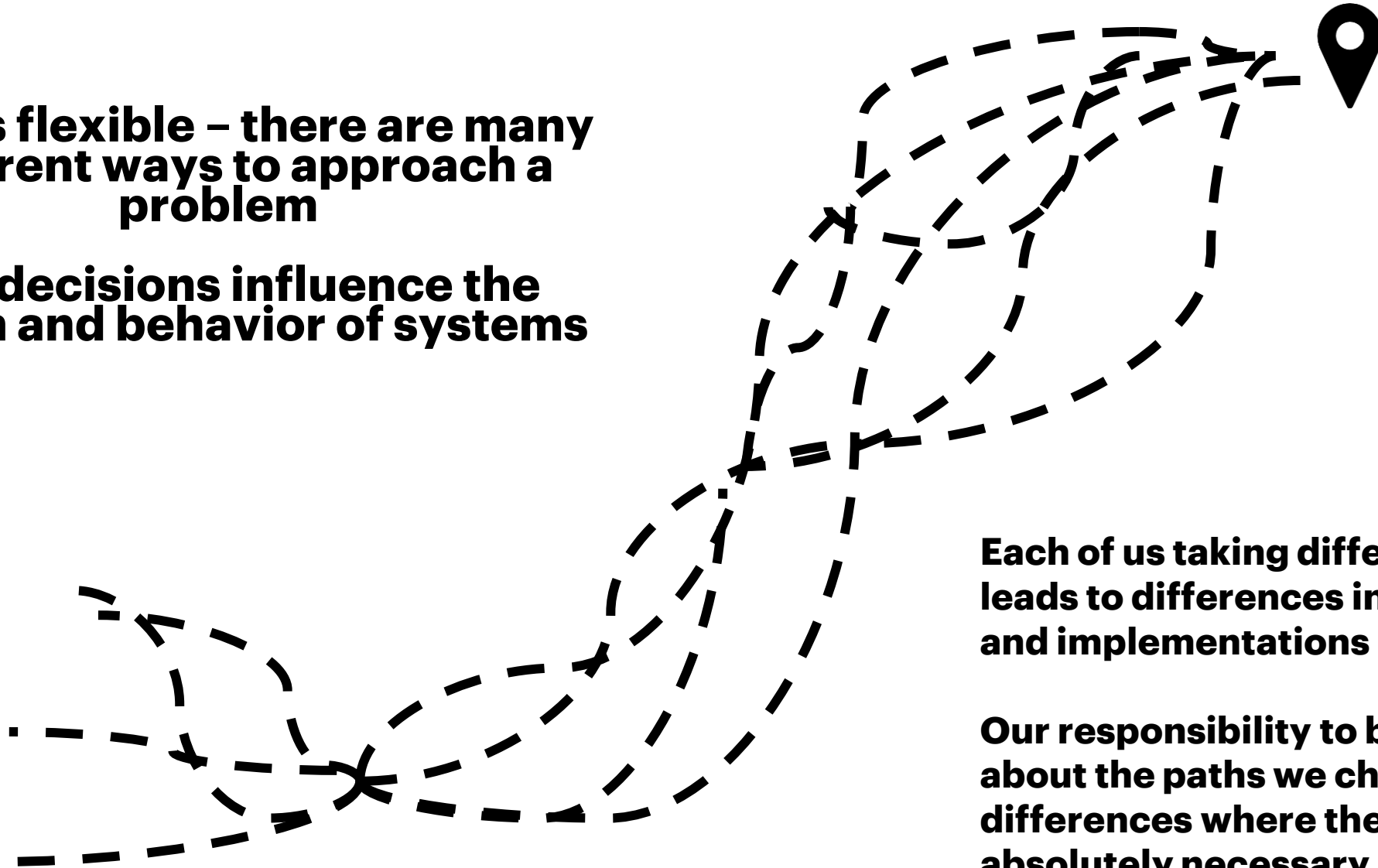
Implementation: a constrained specification that outlines the expectations for implementing a particular workflow against a defined asset or set of assets. Typically includes profiles that are tied to tighter use cases & established system design. These specifications often include details (or pointers to details) for security, connectivity, & onboarding expectations for the assets involved.



Landscape of Standards

FHIR is flexible – there are many different ways to approach a problem

Our decisions influence the design and behavior of systems



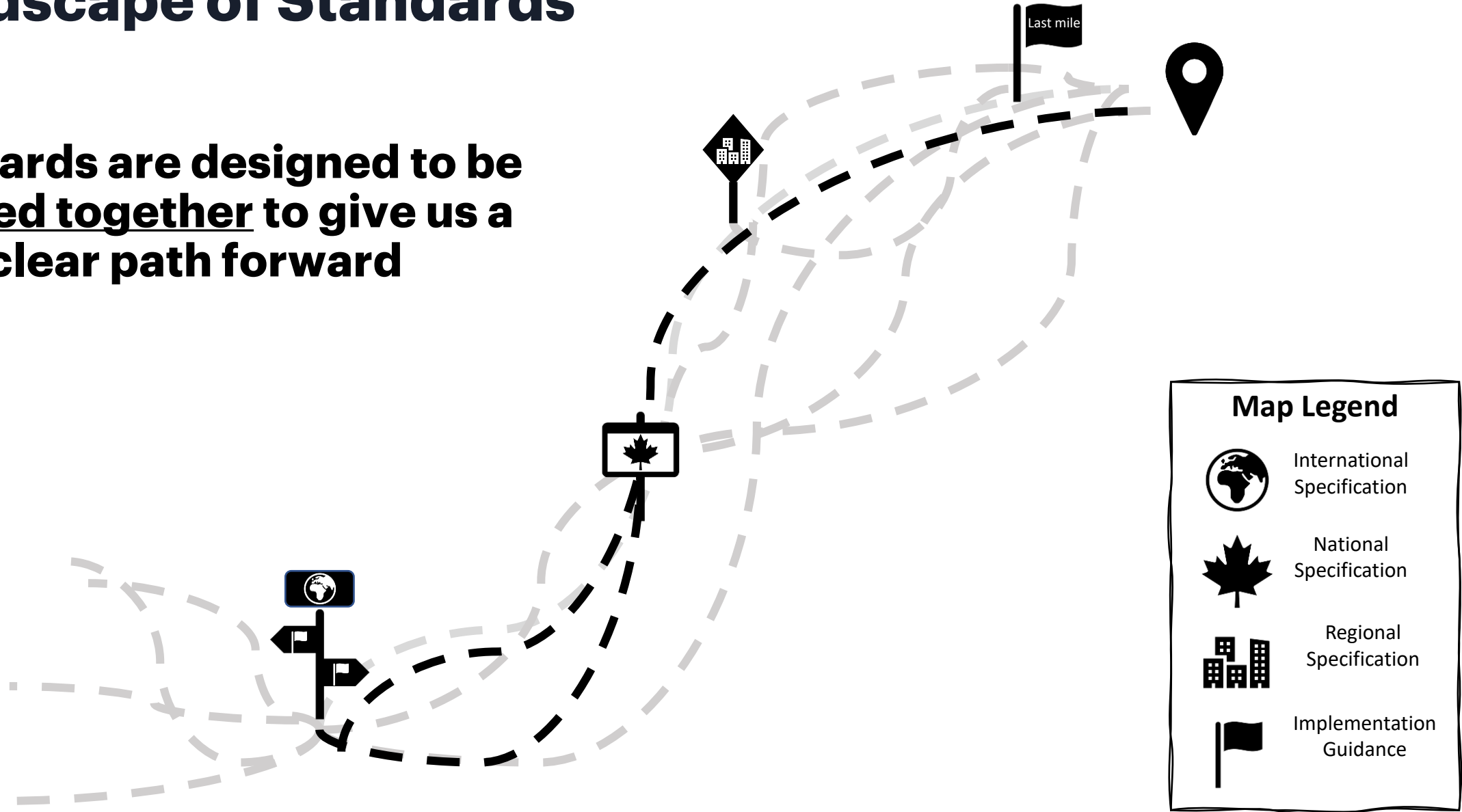
Each of us taking different roads leads to differences in our guidance and implementations

Our responsibility to be thoughtful about the paths we chose – reduces differences where they aren't absolutely necessary



Landscape of Standards

Standards are designed to be layered together to give us a clear path forward



Landscape of Standards

Multiple layers of standards are **effective** at driving interoperability when:

- Layers are aligned
- Each layer is performing its proper function
- Functions aren't overlapping or contradicting



How do Pan-Canadian Specifications Get Developed?

How do Pan-Canadian Specifications Get Developed?

People!

People who are passionate about solving health interoperability problems form a “Coalition of the Willing”

Process!

Process that builds trust for others to implement, based on transparency and progressive maturity in the artefacts that the working group produces

The screenshot shows the 'Working Groups' page on the Canada Health Infoway | InfoCentral website. The page features a navigation menu with 'Communities', 'Standards Centre', 'Tools', 'Resources', and 'News & Events'. A search bar is located in the top right. The main content area is titled 'Working Groups' and includes a sub-header 'Collaboration' with a sidebar menu listing various interest areas. The 'Working Groups' section explains that these groups are for collaborative work and lists 'Current Working Groups' such as Building Blocks, eReferral, FHIR® Implementations, HL7 Canada Council, Patient Summaries, Sex and Gender, and Social Determinants of Health, each with a brief description and member count.

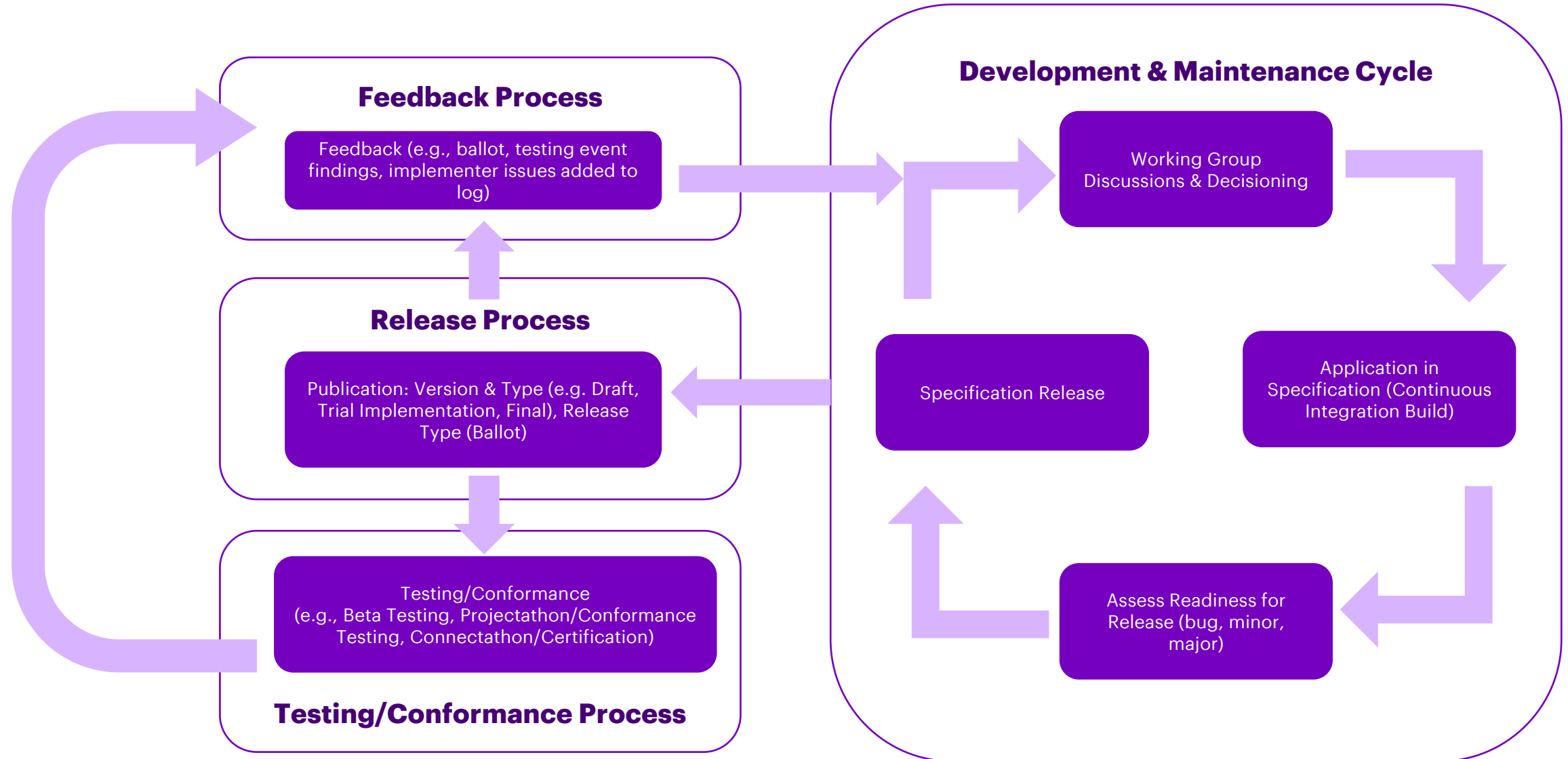
Example Grassroots WGs: eServices, CA Baseline, SMART North

Example Hosted WGs: Patient Summaries, eReferral, Building Blocks



How do Pan-Canadian Specifications Get Developed?

Collaborative Standards Development Lifecycle (cSDLC)



What Pan-Canadian FHIR Specifications Exist?

Pan-Canadian Specifications

Standards & Specifications = More than Just FHIR IGuides!

Focusing today on FHIR Guides that are part of Interoperability Specifications:

[Pan-Canadian Interoperability Specifications:](#)

- Includes rules about the following to support a use case:
 - How the data is formatted at the point of exchange
 - What interaction capabilities are expected (read/write, search parameters, etc.)
 - How the exchange happens (transaction patterns between actors)
 - What reference architecture patterns should be used (authorization, audit logging)

Canadian Standards

Health standards used in Canada provide the clinical terminology and system communications that enable the thousands of health care providers across the country to communicate and share health information in a consistent, unambiguous, safe and reliable manner.

When used in digital health solutions, these standards support:

- Safe and secure exchange of health care information (e.g. drugs, labs, diagnostic imaging) across the continuum of care
- Clinical decision support (e.g. alerts and reminders)
- Synoptic reporting (e.g. cancer care management)
- Population health management (e.g. screening, public health)
- Data analytics (e.g. performance management, research)

 Canadian Clinical Drug Data Set Terminology for use in digital health solutions such as electronic prescribing in Canada. Read More	 DICOM A comprehensive standard for storing, printing and transmitting medical imaging information. Read More	 HL7 FHIR A standards framework allowing for rapid development of systems that solve real world clinical and administrative problems. Read More
 HL7 Version 3, CDA Exchange information from one system to another using HL7 standards and terminology. Read More	 IHE Coordinated use of standards to address specific clinical needs. Read More	 ISO/TC 215 Health Informatics Facilitates capture, interchange and use of health-related data to support and enable all aspects of the health system. Read More

<https://infocentral.infoway-inforoute.ca/en/standards/canadian>



CA Baseline

Project Page: <https://simplifier.net/cabaseline>

Working Group: <https://infocentral.infoway-inforoute.ca/en/collaboration/wg/fhir-implementations>

The screenshot shows the website for the Canadian Baseline 1.1.0 - CI Build. The header includes the HL7 logo (Affiliate | Canada) and the HL7 FHIR logo. A navigation bar contains links for IG Home, Table of Contents, Specification, FHIR Artifacts, and Support. The main content area is titled 'Table of Contents > Development Process'. A yellow highlighted box contains a disclaimer: 'Canadian Baseline, published by HL7 Canada - FHIR Implementation Work Group. This guide is not an authorized publication; it is the continuous build for version 1.1.0 built by the FHIR (HL7® FHIR® Standard) CI Build. This version is based on the current content of <https://github.com/HL7-Canada/ca-baseline/> and changes regularly. See the [Directory of published versions](#).' Below this is the section '3 Development Process'. A paragraph states: 'This section outlines the process and approach that governed how the profiles in this implementation guide were developed and matured.' A yellow highlighted box contains a list of sub-sections: 'Background', 'Roadmap to Interoperability', and 'Implementation Guide Maturity'. The '3.1 Background' section begins with: 'Work began on the CA Baseline in January 2019 as a workstream under the Infocentral FHIR Implementations Working Group. The work was undertaken by a grassroots community of Canadian implementation guide authors, implementors, standards experts and vendors to address the problem of siloed Canadian FHIR-based integration project siloes that were leading to FHIR concepts (resources) being adopted & profiled differently in different projects, contexts, and jurisdictions (i.e. Canadian provinces & territories)'. Sub-sections include '3.1.1 Problem Statement' (discussing the lack of a national set of profiles) and '3.1.2 Intent' (discussing the goal of a common set of profiles across jurisdictions).

Version: Canadian Baseline 1.1.0 - CI Build



CA Baseline

The screenshot displays the FHIR specification for the `Patient.name` element. The left pane shows the tree structure with the `name` element selected. The right pane shows the details for `Patient.name`, including a short description, definition, requirements, comments, data type (HumanName), and constraints. The constraints section highlights a CA-specific rule: `ca-baseline-name: Patient.name.given or Patient.name.family or both SHALL be present`.

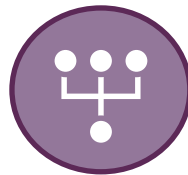
CA Baseline Patient Profile v1.1.7 (Updates pending)



Realm-specific Baseline that softly harmonizes using lowest common denominator approach- needs to be use case & implementation agnostic



Expose implementation guide and vendor community to what concepts can be expected to be supported across jurisdictions today



Drive consistency and harmonization through socialization

- Concepts that were common across existing implementations become ubiquitous in future implementations.



Avoid overly prescriptive constraints before an incentive/governance structure is in place

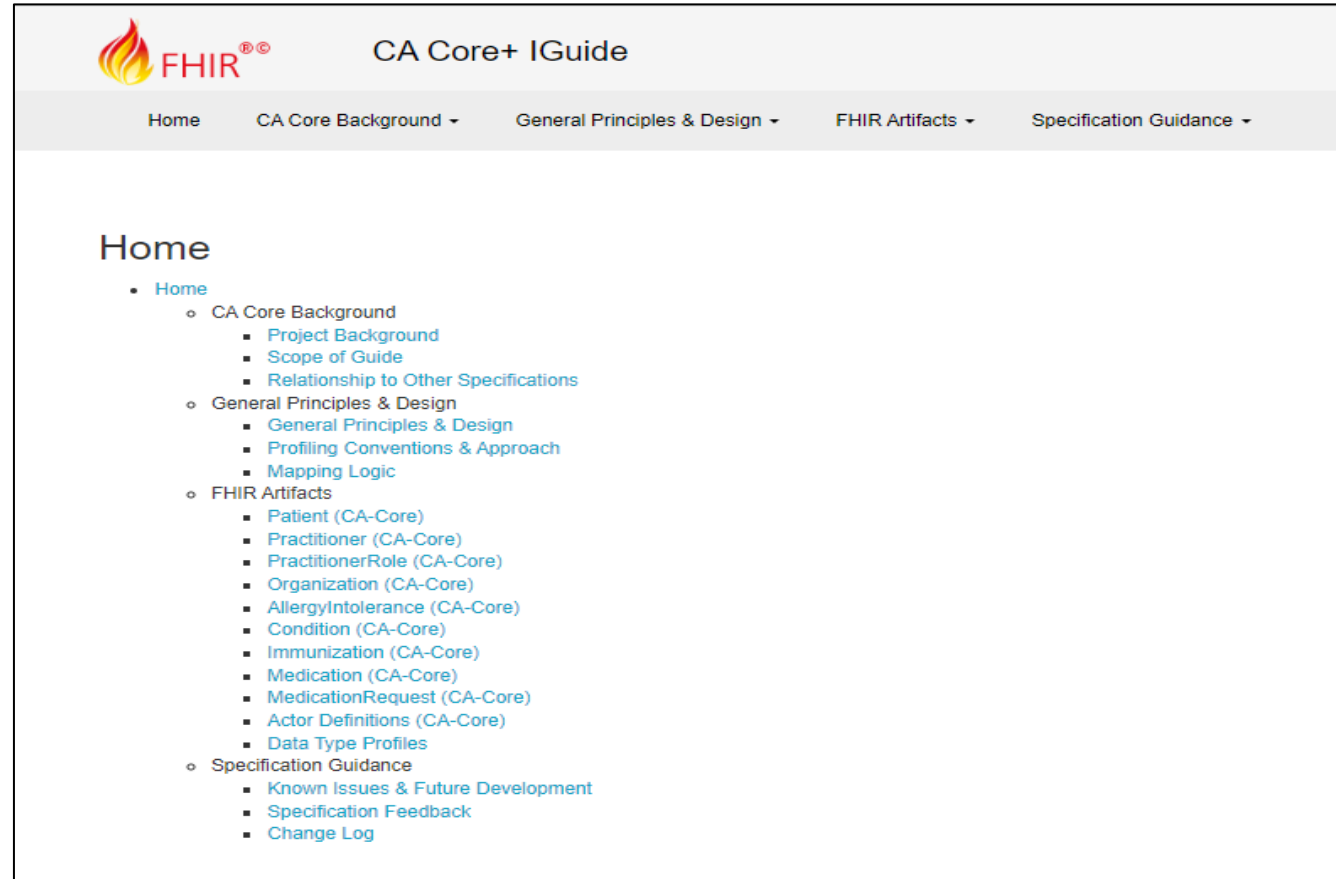
- Absence of united front with vendors = configuration costs passed down to implementing systems to ensure presence of concepts & use of prescribed coding systems



CA Core

Project Page: <https://simplifier.net/ca-core>

Working Group: TBD



The screenshot shows the top navigation bar of the 'CA Core+ IGuide' website. The logo 'FHIR' with a flame icon is on the left. The title 'CA Core+ IGuide' is centered. The navigation menu includes 'Home', 'CA Core Background', 'General Principles & Design', 'FHIR Artifacts', and 'Specification Guidance'. Below the menu, a 'Home' section lists a tree structure of the site's content.

CA Core+ IGuide

Home CA Core Background ▾ General Principles & Design ▾ FHIR Artifacts ▾ Specification Guidance ▾

Home

- Home
 - CA Core Background
 - Project Background
 - Scope of Guide
 - Relationship to Other Specifications
 - General Principles & Design
 - General Principles & Design
 - Profiling Conventions & Approach
 - Mapping Logic
 - FHIR Artifacts
 - Patient (CA-Core)
 - Practitioner (CA-Core)
 - PractitionerRole (CA-Core)
 - Organization (CA-Core)
 - AllergyIntolerance (CA-Core)
 - Condition (CA-Core)
 - Immunization (CA-Core)
 - Medication (CA-Core)
 - MedicationRequest (CA-Core)
 - Actor Definitions (CA-Core)
 - Data Type Profiles
 - Specification Guidance
 - Known Issues & Future Development
 - Specification Feedback
 - Change Log

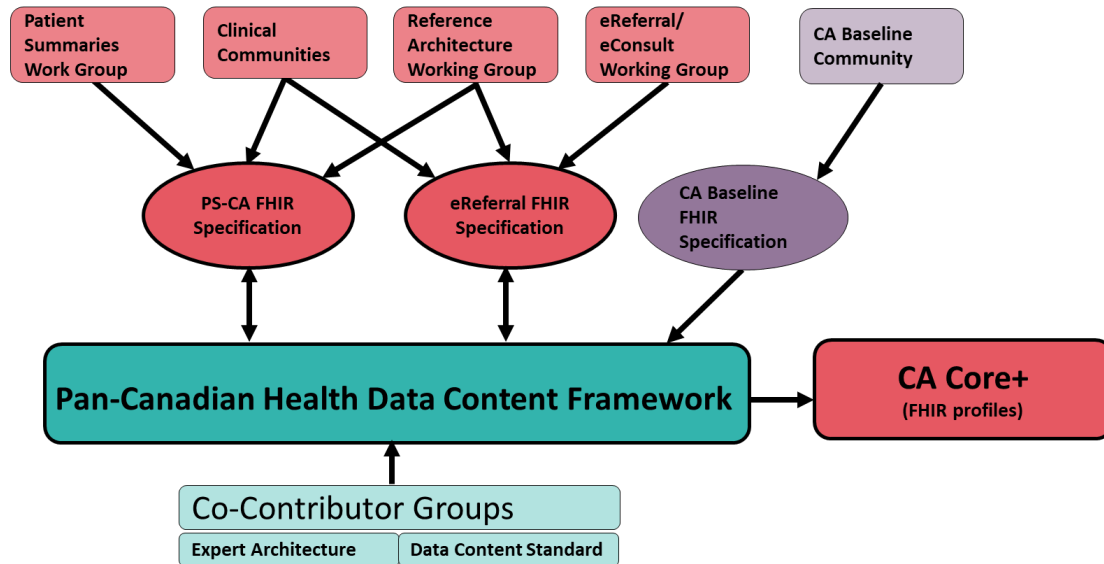
Version: CA Core v0.2 Draft For Ballot



CA Core

Project Page: <https://simplifier.net/ca-core>

Working Group: TBD



Legend

- Infoway led working group
- Infoway led artefact
- CIHI led working group
- CIHI led artefact
- Grassroots led working group
- Grassroots led artefact



Interpretation of the constraints in the Pan-Canadian Health Data Content Framework (pCHDCF) into FHIR Profiles



Very early in development, exposing mappings and terminology

- Expected to apply more prescriptive expectations (demonstrable capabilities) after Core Data For Interoperability (CDI)



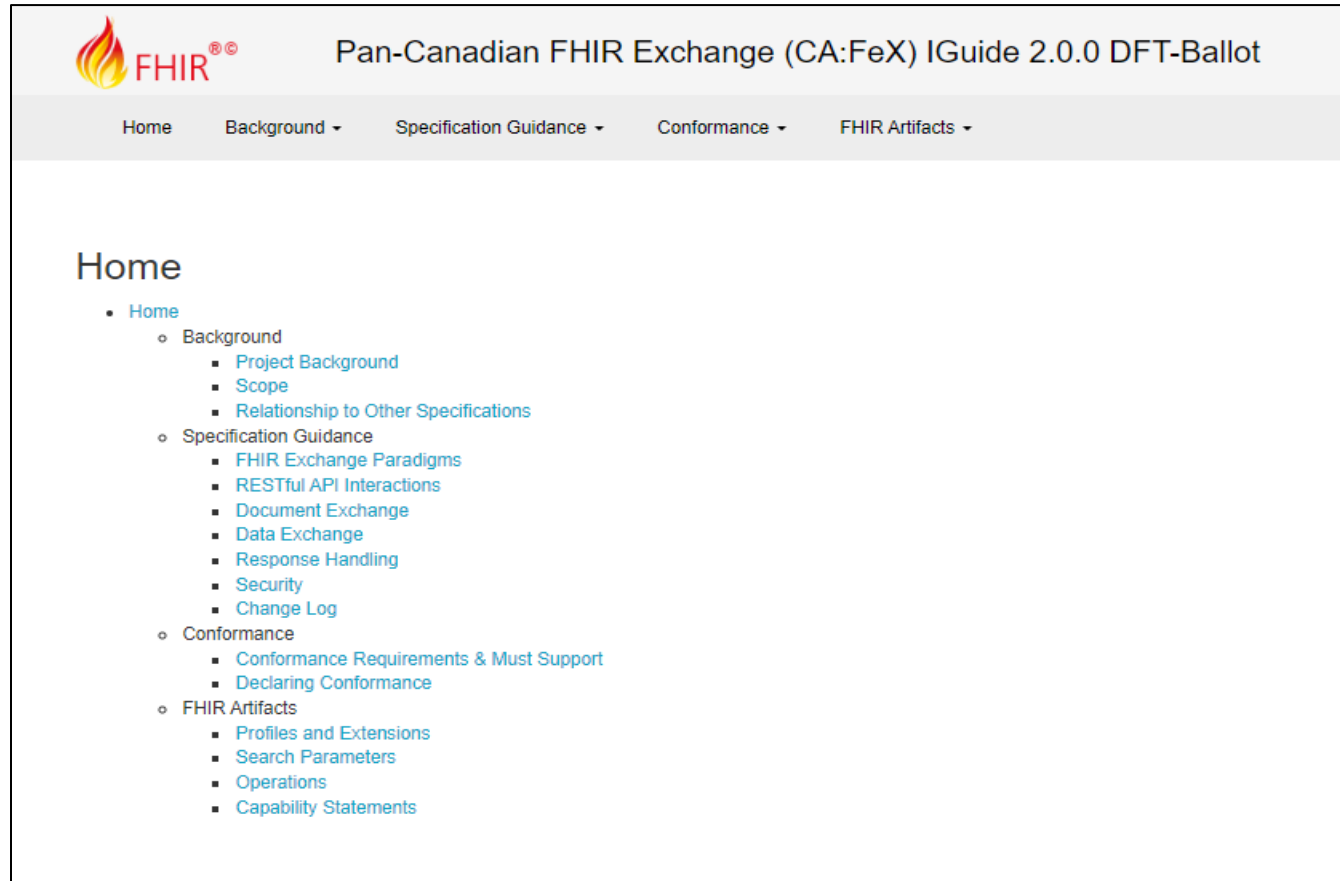
Intent is a set of constraints that are expected to be demonstrated across domains

- Rules about how data will be structured and what elements will be part of server “default configuration”

CA:FeX – Pan-Canadian FHIR Exchange Specification

Project Page: <https://simplifier.net/ca-fex-canadian-fhir-exchange>

Working Group: TBD



The screenshot shows the website for the Pan-Canadian FHIR Exchange (CA:FeX) IGGuide 2.0.0 DFT-Ballot. The header includes the FHIR logo and the title. The navigation menu has links for Home, Background, Specification Guidance, Conformance, and FHIR Artifacts. The main content area displays a 'Home' section with a tree view of the document structure:

- Home
 - Background
 - Project Background
 - Scope
 - Relationship to Other Specifications
 - Specification Guidance
 - FHIR Exchange Paradigms
 - RESTful API Interactions
 - Document Exchange
 - Data Exchange
 - Response Handling
 - Security
 - Change Log
 - Conformance
 - Conformance Requirements & Must Support
 - Declaring Conformance
 - FHIR Artifacts
 - Profiles and Extensions
 - Search Parameters
 - Operations
 - Capability Statements



Exchange requirements that can be applied across use cases– ensures certain capabilities are present in every FHIR server in Canada



Conditional expectations that are Resource-specific:

“If your system supports AllergyIntolerance Resources, you have to demonstrate you support query using the Patient id + the clinical status of the allergy”



Raises the floor for default capabilities – creates predictability for applications/data requesters to build around

Versions:

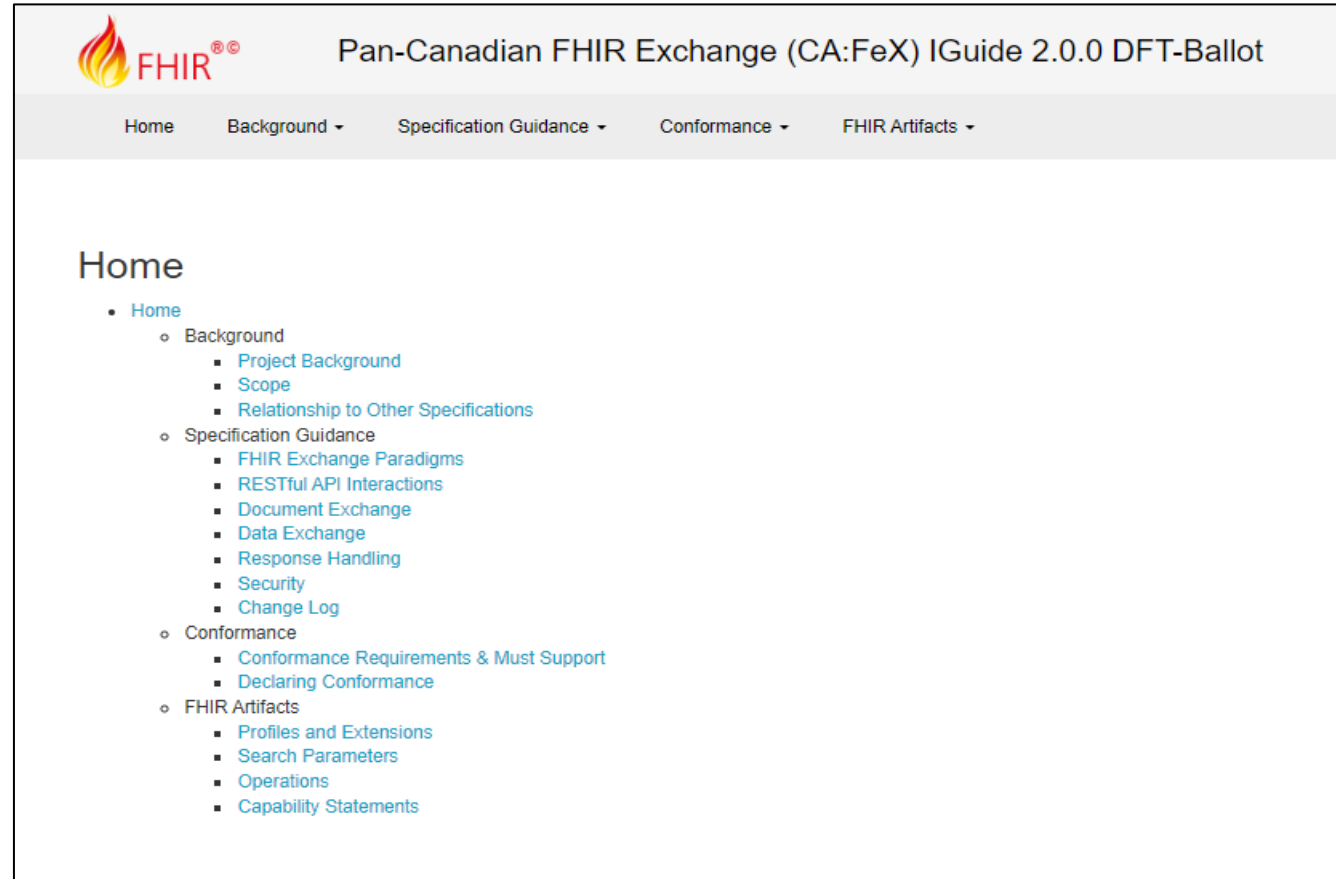
- CA:FeX v1.0.0 Trial Implementation
- CA:FeX v2.0.0 Draft For Ballot




PS-CA- Pan-Canadian Patient Summary Specification

Project Page: <https://simplifier.net/ps-ca-r1>

Working Group: <https://infocentral.infoway-inforoute.ca/en/collaboration/wg/patient-summaries>



 Pan-Canadian FHIR Exchange (CA:FeX) IGGuide 2.0.0 DFT-Ballot

Home Background Specification Guidance Conformance FHIR Artifacts

Home

- Home
 - Background
 - Project Background
 - Scope
 - Relationship to Other Specifications
 - Specification Guidance
 - FHIR Exchange Paradigms
 - RESTful API Interactions
 - Document Exchange
 - Data Exchange
 - Response Handling
 - Security
 - Change Log
 - Conformance
 - Conformance Requirements & Must Support
 - Declaring Conformance
 - FHIR Artifacts
 - Profiles and Extensions
 - Search Parameters
 - Operations
 - Capability Statements

Versions:

- PS-CA v1.0.0 Trial Implementation
- PS-CA v1.1.0 Draft



CA:eReC - Pan-Canadian eReferral-eConsult

Project Page: <https://simplifier.net/ca-erec>

Working Group: <https://infocentral.infoway-inforoute.ca/en/collaboration/wg/ereferral>



FHIR Pan-Canadian eReferral-eConsult (CA:eReC) iGuide

Home CA:eReC Background Business Context Technical Specifications Terminology FHIR Artifacts

DRAFT - The specification is currently in development and subject to significant change. It is not ready for limited roll-out or production level use.

Home

- Home
 - CA:eReC Background
 - Introduction
 - Glossary of Terms
 - Business Context
 - Business Rules
 - eConsult Business Events
 - Use Cases
 - Privacy and Security Guidance
 - Technical Specifications
 - Context
 - Technical Background
 - CA:eReC Integration Patterns
 - CA:eReC Messaging
 - CA:eReC Central Intake
 - CA:eReC Sequence Diagrams
 - Core Interoperability Specification

Version: CA:eReC v1.0.0 Draft for Ballot



Pan-Canadian Service Directory

Project Page: [Pan-Canadian HealthcareService Directory \(CA-HSD\) - SIMPLIFIER.NET](https://simplifier.net/pan-canadian-healthcare-service-directory-ca-hsd)

Working Group: <https://infocentral.infoway-inforoute.ca/en/collaboration/wg/ereferral>

PROJECT OF [Canadian FHIR Registry](#)

Pan-Canadian HealthcareService Directory (CA-HSD)

This Pan-Canadian HealthcareService Directory FHIR Implementation Guide provides standards and guidance for Canada.

Coming soon!

PRIVATE PROJECT

[Introduction](#)

[Resources](#)

[Guides](#)

[Team](#)

[Log](#)

[Issues](#)

[Dependencies](#)

[Packages](#)



cSDLC Process – CA:eReC (pt.1)

The screenshot shows the GitHub repository page for 'CA:eReC Pan-Canadian eReferral-eConsult' under the 'AccessDigitalHealth' organization. The repository is part of the 'PROJECT OF Canadian FHIR Registry'. The description states: 'The CA:eReC iGuide seeks to provide guidance around the messaging paradigm and other patterns to sending and receiving eReferrals and eConsults.' The page has tabs for 'Introduction', 'Resources', 'Guides', 'Team', 'Log', 'Dependencies', and 'Packages'. A table lists various resources with their counts:

Resource	Count
Profiles	14
ValueSets	9
Extensions	11
Texts	78
Images	31
Layouts	3
PackageManifests	1


Additional text on the page includes: 'The pan-Canadian eReferral/eConsult (CA:eReC) specification, based on the Ontario - eConsult specification, allows practitioners and service providers perform electronic referrals and eConsults. CA:eReC building blocks are configurable to support various use cases. An eReferral is an electronic request for a patient to receive care at home or community care, diagnostic examination, or treatment, compared to traditional paper-based methods. Over time, eReferrals can reduce delays in treatment, and improve the overall patient experience. An eConsult is an electronic request from a patient to a specialist for a second opinion or consultation on a specific condition or test result.'

- Conduct an environmental scan and find relevant guides that compliment your project
- Structure your guide and do use case analysis including scoping
- Set up environment, develop resources and the guide

Link: [CA:eReC - SIMPLIFIER.NET](https://www.simplifier.net/caerec)



cSDLC Process – CA:eReC (pt.2)

 eReferral - eConsult / ER-8
Clarification on add-rfi event code

▼ Details

Type:	<input checked="" type="radio"/> Technical Correction
Resolution:	Unresolved
Priority:	<input type="radio"/> Normal
Fix Version/s:	None
Affects Version/s:	None
Component/s:	None
Labels:	None
Work Group:	eReferral
Related Section(s):	MessageEventCode

- Discussions with working group on inclusion of information in the guide
- Working group provides feedback (represented in JIRA tickets)
- Ticket is triaged, assigned to the party responsible, and acted upon

[\[ER-8\] Clarification on add-rfi event code - InfoRMS \(infoway-inforoute.ca\)](#)



cSDLC Process – CA:eReC (pt.3)

```
11/28/2023 1:01:17 PM | version 1
1 {
2   "resourceType": "ValueSet",
3   "id": "message-event-code",
4-  "url": "https://fhir.infoway-inforoute.ca/io/CA-eREC/ValueSet/message-event-code",
5   "version": "0.1.0",
6   "name": "MessageEventCode",
7   "title": "Message Event Code",
8   "status": "draft",
9   "publisher": "Canada Health Infoway",
10  "description": "Code that identifies the event this message represents and connects it with i
11  "immutable": false,
12  "compose": {
13    "include": [
14      {
15        "system": "https://fhir.infoway-inforoute.ca/io/CA-eREC/ValueSet/message-event-code",
16        "concept": [
17          {
18-         "code": "add-service-request",
19-         "display": "An EventCode used by an RMS Source to request that a new ServiceReque
20-         },
21-         {
22-         "code": "revoke-service-request",
23-         "display": "An EventCode used by an RMS Source to notify systems that ServiceRequ
24-         },
25-         {
26+        "code": "notify-add-service-request",
27+        "display": "An EventCode used by an RMS Source to notify systems other than the R
28+        },
29+        {
30+        "code": "notify-update-service-request",
31+        "display": "An EventCode used by an RMS Source to notify systems that a ServiceRe
32+        }
33      ]
34    }
35  }
36 }
```

- Make the appropriate changes to the section of the guide
- Provide updates and socialize with the working group and get approved

Link: [SIMPLIFIER.NET - Diff Page](#)



Jurisdictional Implementation Style (JIST) Guide

Jurisdictional Implementation Style (JIST) iGuide

PROJECT OF [Canadian FHIR Registry](#)

Jurisdictional Implementation Style iGuide (JIST)

This guide is intended to provide jurisdictional FHIR implementation guide (iGuide) authors with the tips, patterns, and messaging needed to ensure their iGuides are properly harmonized and aligned with pan-Canadian standards (e.g., PS-CA, CA:FeX).

PUBLIC PROJECT

FHIR R4

Scope National CA

Subscriptions 0

Introduction

Resources

Guides

Team

Log

Issues

Dependencies

Packages

Resources

Profiles

6

Texts

19

Images

17

Layouts

3

PackageManifests

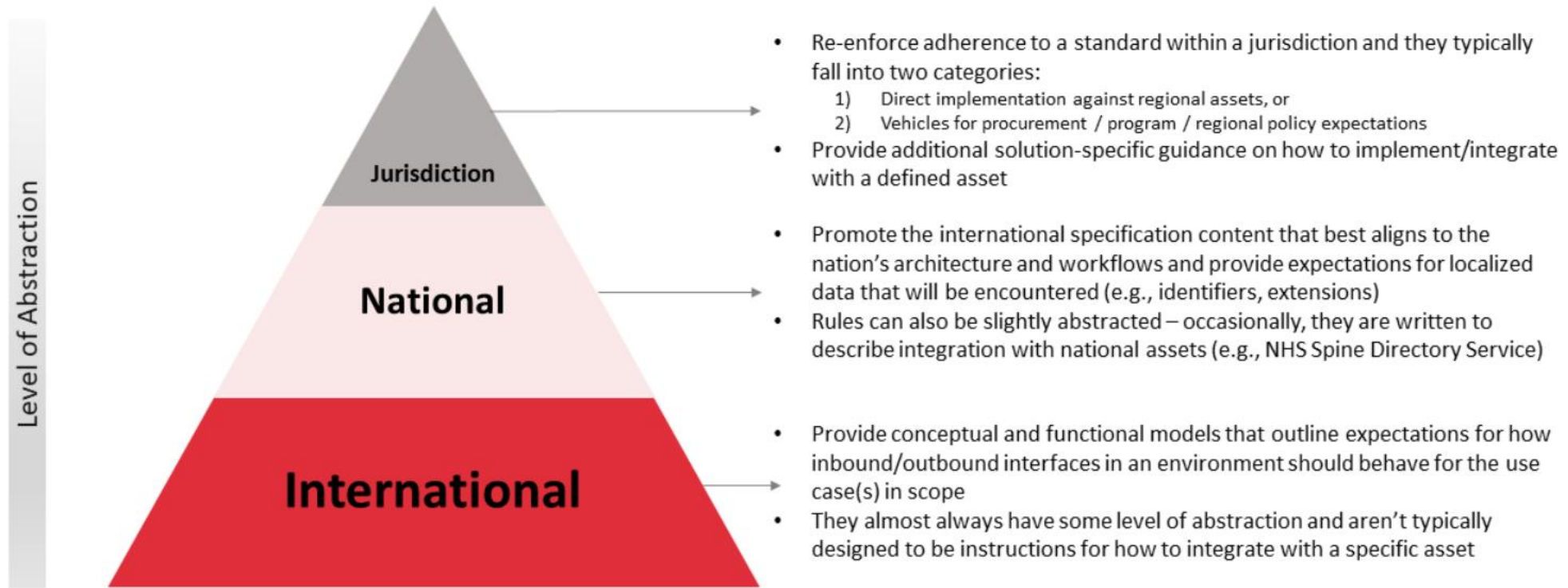
1

Provide guidance to IG authors (International, National, and Jurisdiction FHIR implementation guides) on the technical patterns and style guide for conveying jurisdictional implementation patterns, details, & extensions etc.

Purpose of Creating an iGuide

Guides and Their Purpose

For each specification type, there is also a guide that identifies how the specification should be implemented according to its geographic scope:



Resources to Find Each Others Work and Get Involved

Additional Resources

[Canadian FHIR Registry](#)

Hosts the nationally recommended FHIR profiles, extensions, value sets, URIs and other useful, commonly used components.

[FHIR.Org/Guides/Stats](#)

Provides relevant FHIR iGuides across the globe and how they use the profile, extension, value set etc. that you are searching for, within HL7 FHIR.

[Chat.fhir.org](#)

Your one stop shop for finding any and solutions within the HL7 FHIR community. Gives you access to the greatest minds using FHIR, including yourself.

[Extension Registry](#)

HL7 FHIR defined extension pack that can be used for finding relevant extensions for your guide.



Questions?