



**Canada Health Infoway**

# **Pan-Canadian Service Directory Implementation Guide**

August 1, 2024

**Background**

**Agenda**

# Code of Conduct

- Members to share their opinions on the content presented
- Co-chairs to actively listen and consolidate the opinions and ideas shared during the WG sessions and shared through notes post meeting
- All ideas are welcome; however, priority will be given to content related to the current version of the guide
- Coming to a consensus that everyone “can live with”
  - If all avenues are exhausted through discussion and consensus has not been reached, an online poll (during the WG call and on forums) will be used to reach majority consensus

# Service Directory – Summary

## Definition

The service directory specification harmonizes how data regarding healthcare services and providers is structured and provides standardized interactions with that information (e.g., Querying service/provider information). This directory would also store relationships between the service, service providers and their roles, organizations, and associated locations, as well as details on how to contact them. This standardization will enable users (regardless of jurisdiction) to search for, locate, and communicate with healthcare providers, and help them search, plan, and choose the right health services for their patient(s) needs.

## Out-of-Scope

The initial version of the implementation guide will not cover:

- A directory of instances and its subsequent such use,
- Federated services/functionality,
- Inclusion of actors outside the scope defined within this implementation guide. This is done to avoid complex processes that are outside of the current defined processes of a service directory.
- Security and access considerations

# MustSupport Definition

The *supplier (sender)* of the service directory information

- **SHALL** populate any elements with the MustSupport flag set to true if the information is available and is appropriate to provide

The consumer (**receiver**) of the service directory information

- **SHALL** be capable of receiving any resource instances containing elements with the MustSupport flag set to true without generating an error or causing the application to fail.
- Elements without a MustSupport flag in a FHIR response **SHOULD** still be received without generating an error or causing the application to fail.

# Use Cases

## 1. Search for Service

Service Consumer looks up specialist within the patient's city that speaks the same language

**Query:** Search for location that has a specific city and an associated specialist service and the specified language and return the location and associated practitioners that provide that service

**Alternative:** Health region queries all locations within the region to update its central repositories information

**Query:** Search for all locations within a specific organization that have been updated since the last update, and include in the results all practitioners associated with each location

## 2. Search for Service Provider

Patient asks their general practitioner additional information on their diagnosis which only the specialist they saw can provide additional information on

**Query:** Search for a practitioner based on their name and specific specialty and include locations and contact information in the response

# Types of Actors – Roles and Definition (Pan-Canadian)

Actors	Description
<b>Services Supplier</b>	<p>Is an actor that accepts the query request and produces a list of matching resources that it sends as a response.</p> <p>Some examples of this actor are: Jurisdiction, Health Region, Hospital, Community Clinic</p>
<b>Services Consumer</b>	<p>Requests a list of resources from the SD Services Supplier based on the query parameters selected.</p> <p>Some examples of this actor are: Registered Care Providers (Physician, Nurse, etc.), Front Desk Staff, Health Region, Community Clinic, Patient*</p>

\* Patient access to the service is not in scope for the first MVP release

# Process for Creation and Review of Profiles

1. Profiles are created by Infoway and put on Github (auto-linkage with the Simplifier project - Public)
2. Profiles were published to simplifier on Wednesday, 10AM ET for WG review
3. WG members review the profiles together on Thursday, 1PM ET
4. Changes to the profiles and the pages are gathered and the updates made before the next session

# Approach for Extensions & Valuesets

- Derived from the original IG
- The canonical URLs are updated to ensure that there aren't any dependencies on the IG that they are adopted from
  - These new extensions and valuesets are maintained by Infoway
- Valuesets to be hosted on terminology gateway by Infoway

# CA:CSD Base Profiles

We are using the IHE mCSD version 3.8.0 as the basis for our profiles, and are deriving from them to ensure that we remain in line with it.

Should we identify something in the future that does not allow us to continue to derive from mCSD we can easily switch to using base FHIR r4.

# Agenda:

<https://simplifier.net/ca-csd>

- Feedback on last week's resources:
  - Organization
  - OrganizationAffiliation
  - Location with Distance
  - Facility (Organization / Location)
  - Jurisdiction (Organization / Location)
- Queries / Capability Statements

# Initial Resources

Resource	Represents
✓ HealthcareService	Service offered
✓ Location	Location of service. Generally associated with an address/geo location
✓ EndPoint	How to connect to the associated resource within the Service
✓ PractitionerRole	Relationship between person and location or organization. Includes the role played when representing that location/organization
✓ Practitioner	Person providing the service
✓ Organization	Department, health region, jurisdiction etc.
✓ OrganizationAffiliation	How two organizations relate to each other or to a location
✓ Location Distance	Supports distance based searched
✓ Location for Jurisdictions	A jurisdiction is a pairing of Location and Organization which represents administrative units such as cities, counties, regional zones etc.
✓ Organization for Jurisdictions	
✓ Location for Facilities	A facility is a pairing of Location and Organization which represents a physical care delivery site such as hospitals, clinics, physician offices, pharmacies etc.
✓ Organization for Facilities	

## Additional Resources

Resource	Represents
<b>OrganizationAffiliation Document Sharing</b>	Considered out of scope for the first release.
<b>Endpoint for Document Sharing</b>	Considered out of scope for the first release.

# Questions / Comments

Are there any questions or comments on the profiles presented last week

- Organization
- OrganizationAffiliation
- Location with Distance
- Facility (Organization / Location)
- Jurisdiction (Organization / Location)

# Selected Use Cases

## Search for Service

- a) Filter by:
  - i. Service
  - ii. Service Type
  - iii. Location (city, postal code, health region etc.)
  - iv. Organization
  - v. Provider Availability
- b) Possible Elements to return
  - i. Service(s)\*
  - ii. Practitioner
  - iii. Location(s)
  - iv. Organization(s)
  - v. Availability

## Search for Service Provider

- a) Filter by:
  - i. Provider details (name, qualifications)
  - ii. Service(s) offered
  - iii. Service Type
  - iv. Location (city, postal code, health region etc.)
  - v. Organization
  - vi. Provider Availability
- b) Possible Elements to return
  - i. Practitioner
  - ii. Qualifications
  - iii. Services Provided
  - iv. Associated Location(s)
  - v. Associated Organization(s)
  - vi. Availability

\* mandatory

# List of Queries + Parameters from mCSD by Resource

Resource	Parameters	Associated Elements
HealthcareService	active	HealthcareService.active
	identifier	HealthcareService.identifier
	location	HealthcareService.location
	name	HealthcareService.name
	name:contains	HealthcareService.name
	name:exact	HealthcareService.name
	organization	HealthcareService.organization
	service-type	HealthcareService.type

# List of Queries + Parameters from mCSD by Resource

Resource	Parameters	Associated Elements
Location + Location with Distance	identifier	Location.identifier
	name	Location.name
	name:contains	Location.name
	name:exact	Location.name
	organization	Location.organization
	partof	Location.partOf
	type	Location.type
	status	Location.status
	near	Location.position (In the location with distance profile)

# List of Queries + Parameters from mCSD by Resource

Resource	Parameters	Associated Elements
Organization	active	Organization.active
	identifier	Organization.identifier
	name	Organization.name
	partof	Organization.partOf
	type	Organization.type
	_include=Organization.endpoint	Organization.endpoint
	_revInclude=Location:organization	Location.organization
	_revInclude=OrganizationAffiliation:participating-organization	Organization.participatingOrganization
	_revInclude=OrganizationAffiliation:primary-organization	Organization.organization

# Queries

Search Parameter	Example Query	Associated Elements	Comments
Search for List of all HealthcareServices	GET [base]/HealthcareService?	N/A	N/A
Search for Service Type	GET [base]/HealthcareService?service-type=http://terminology.hl7.org/CodeSystem/service-type 124	HealthcareService.type	Additional queries are needed to return practitioner, location or organization if they are needed
Get a list of HealthCareService resources that are type of "General Practice", and associated organizations and locations	GET [base]/HealthcareService?service_type=http://terminology.hl7.org/CodeSystem/service-type 124&_include=HealthcareService:organization&_include=HealthcareService:location	HealthcareService.type HealthcareService.organization HealthcareService.location	All associated Organizations and HealthCareServices will be included in the Bundle response
Search for nearby Hospital	GET [base]/Location?type=http://terminology.hl7.org/CodeSystem/v3-RoleCode HOSP&_pretty=true	Location.type Location.physicalType Location.position	N/A
Search for Organization	GET [base]/OrganizationAffiliation?primary-organization AND/OR GET [base]/OrganizationAffiliation?participating-organization	OrganizationAffiliation.organization OrganizationAffiliation.participating Organization	N/A
Search for Active Provider and their availability based on X service provided at Y organization	GET [base]PractitionerRole?_include=PractitionerRole:location&_include=PractitionerRole:organization&_include=PractitionerRole:service&_pretty=true	PractitionerRole.practitioner PractitionerRole.organization PractitionerRole.code PractitionerRole.location PractitionerRole.healthcareService	<ul style="list-style-type: none"> <li>Filter results to exclude any active practitioners</li> <li>Filter based on service provided</li> </ul>

# Next Week (August 8th)

- Continue discussion on queries and Capability Statements
- Review current terminology bindings



**Canada Health Infoway**

# Thank you!

## Contact Information

**VISIT OUR WEBSITE**  
[infoway-inforoute.ca](http://infoway-inforoute.ca)

**VISIT OUR SURVEY WEBSITE**  
[insights.infoway-inforoute.ca/](http://insights.infoway-inforoute.ca/)

**LET'S CONNECT ON LINKEDIN**  
[linkedin.com/company/canada-health-infoway/](https://linkedin.com/company/canada-health-infoway/)

**LET'S CONNECT ON TWITTER**  
[@infoway](https://twitter.com/infoway)

# List of Queries + Parameters from mCSD by Resource

Resource	Parameters	Associated Elements
Practitioner	active	Practitioner.active
	identifier	Practitioner.identifier
	name	Practitioner.name
	given	Practitioner.name.given
	family	Practitioner.name.family

# List of Queries + Parameters from mCSD by Resource

Resource	Parameters	Associated Elements
Organization	active	PractitionerRole.active
	location	PractitionerRole.location
	organization	PractitionerRole.organization
	practitioner	PractitionerRole.practitioner
	role	PractitionerRole.code
	service	PractitionerRole.healthcareService
	specialty	PractitionerRole.specialty
	<u>_include=PractitionerRole:practitioner</u>	PractitionerRole.practitioner

# List of Queries + Parameters from mCSD by Resource

Resource	Parameters	Associated Elements
OrganizationAffiliation	active	OrganizationAffiliation.active
	date	OrganizationAffiliation.period
	identifier	OrganizationAffiliation.identifier
	participating-organization	OrganizationAffiliation.participatingOrganization
	primary-organization	OrganizationAffiliation.organization
	role	OrganizationAffiliation.code
	_include=OrganizationAffiliation.endpoint	OrganizationAffiliation.endpoint

# List of Queries + Parameters from mCSD by Resource

Resource	Parameters	Associated Elements
Endpoint	identifier	Endpoint.identifier
	organization	Endpoint.organization
	status	Endpoint.status