



Canada Health Infoway

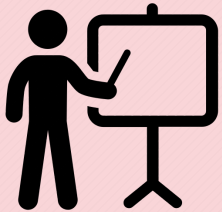
Hhealth Application Lightweight Protocol (HALO)

*An Approach for Simplifying Primary and
Community Care Access to Digital Health
Services*

Presentation to SMART North on the HALO Working Group
May 16, 2025

Introductions

Presenters



Alex Reis | Director, Digital Health Interoperability, Canada Health Infoway
Silas Ng | Product Director, Interoperability Solutions, Canada Health Infoway

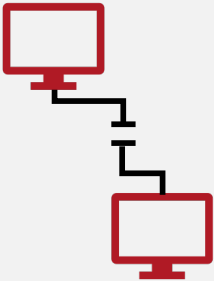
HALO Overview and Benefits

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The Challenge

Siloed and Disconnected



Physicians and other health providers in the community **work in digital silos, not well connected** to the resources and processes they need to deliver care. This contributes to significant dysfunction:

- Physicians report tremendous **administrative burden**, leading to practice **inefficiency, burnout** and health human resource challenges
- There is **limited ability to share community-generated data**
- There are patient safety issues and patients “falling through the cracks” due to poor, manual processes

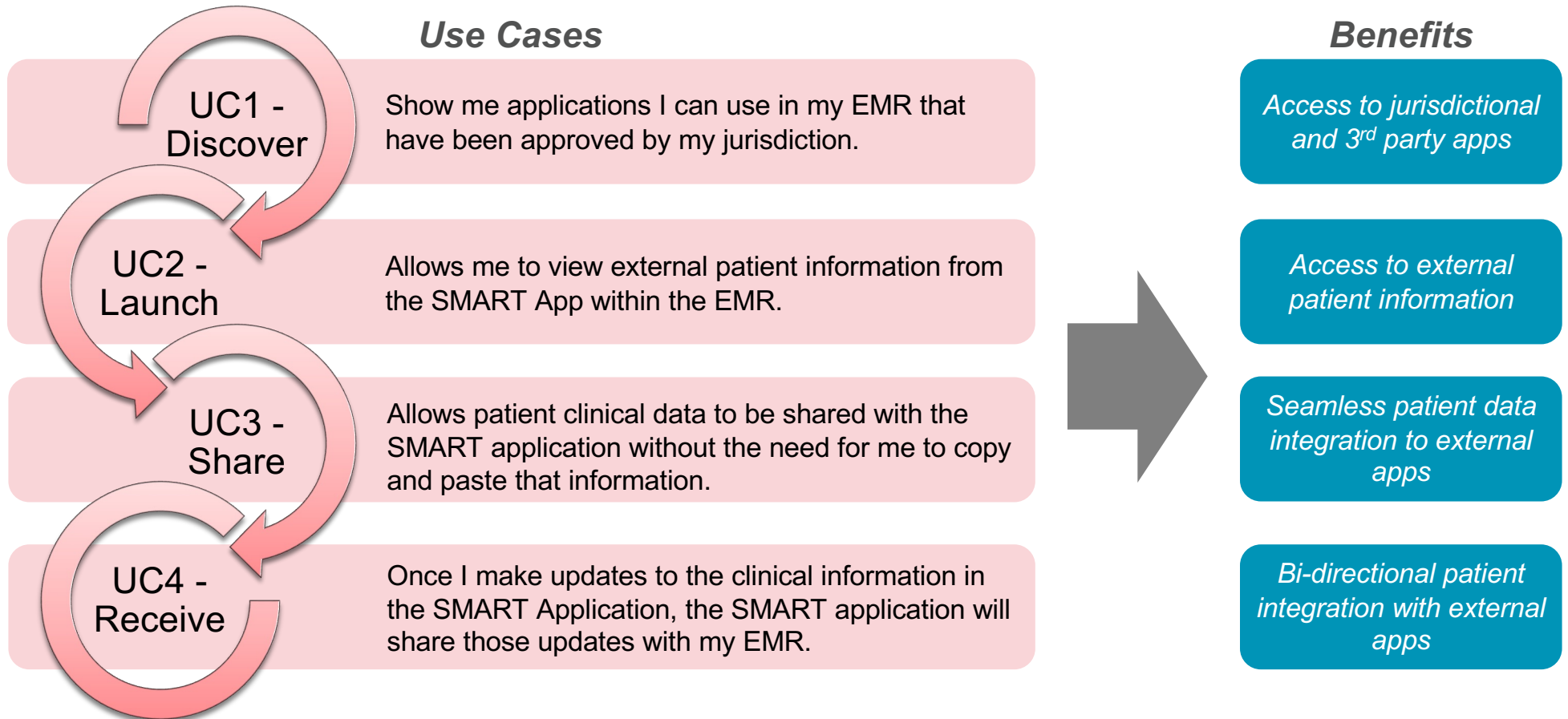
Scalable Solution to Market



Infoway has proposed HALO as a **standardized “visual interactive framework”** that would enable **web applications to plug into community EMRs and point of care (POC) solutions** more easily and simplify access to services for community-based providers.

Simplistically, HALO will enable EMRs to launch different approved ‘Apps’, such as an eReferral, or an App that enables viewing data about a patient from a jurisdictional system. Apps are web-based and should not require multiple sign ins by the physician and reduce data entry required by physicians by passing along patient and provider context (at minimum).

HALO v1 covers the following use cases

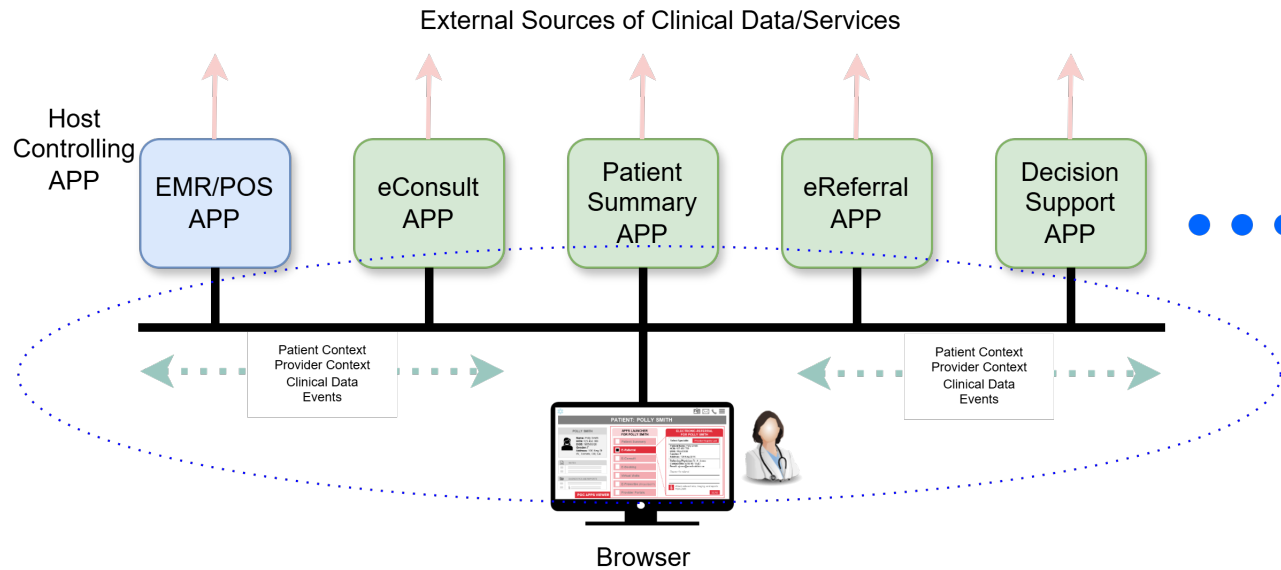


Technical Overview

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A Visually Interactive Approach to Interoperability



- ✓ Enables faster deployment of clinical applications
- ✓ Promotes the use of existing standards
- ✓ Reduces integration complexities

- HALO allows the launch and coordination of one or more clinical web applications through standard technologies
- HALO is integrated at the visual interactive level, empowering the clinical web applications (SMART App) to do the majority of the work integrating with external services

HALO Objectives

- Combines established specifications to simplify interoperability for Point-of-Care (PoC) vendors.

It doesn't reinvent the wheel!

- Defines a Pan-Canadian framework for standardizing and expanding the SMART App Launch.
- Provides a deployable framework for vendors who are SoF ready and a bridge for those on working towards SoF with introduction of SMART on FHIR Accelerator (SoFA)

SoFA helps PoC vendors without existing FHIR server capabilities to rapidly enable SMART on FHIR features to enable data sharing sooner.

FHIR R4
SMART App Launch v2.1
OAuth v2.0 / OIDC
FHIR Subscriptions R5B
HALO Framework DFT v0.1.0



HALO At-a-Glance

App Catalog

- Provides access to approved healthcare applications
- Defines data structure and endpoints/APIs

IDP / AS

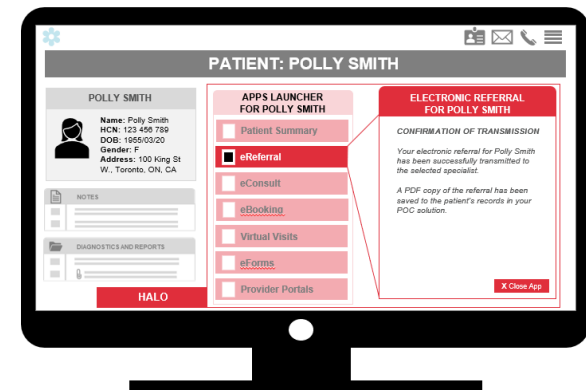
- Enables identity management and authentication
- Authorization and token management
- Trust Model

SMART Apps

- Provides specialized capabilities
- Enables two-way data sharing
- Is able to access EMR and / or jurisdictional assets

SoFA and Supporting Services

- Facilitates FHIR and non-FHIR access to jurisdictional assets
- Enables context / event management and subscription



- Builds accessible links to external apps
- Launches the apps
- Exchanges FHIR data with app (via FHIR Server, SoFA interface)

Point of Care
e.g. EMR

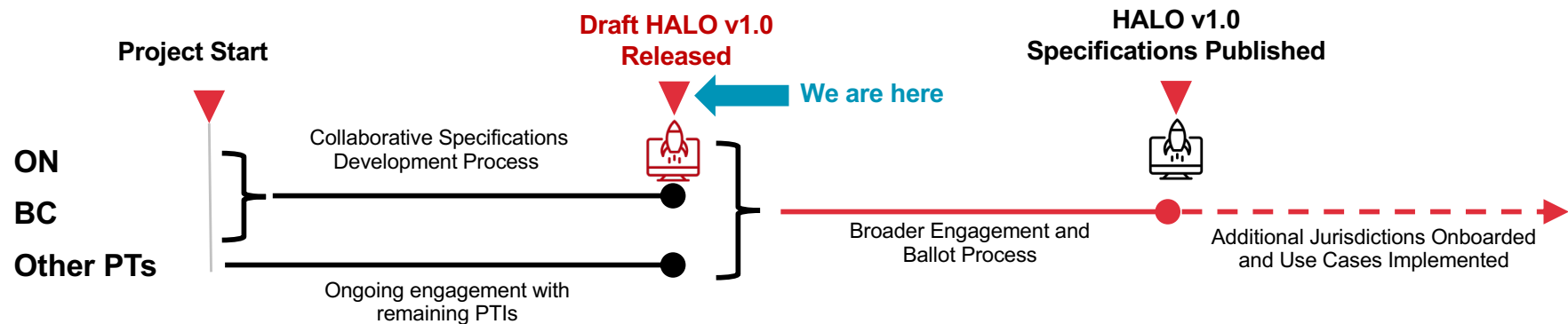
Where We Are Today

HALO v1.0.0 Draft Published

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A Pan-Canadian Specification to Accelerate Adoption



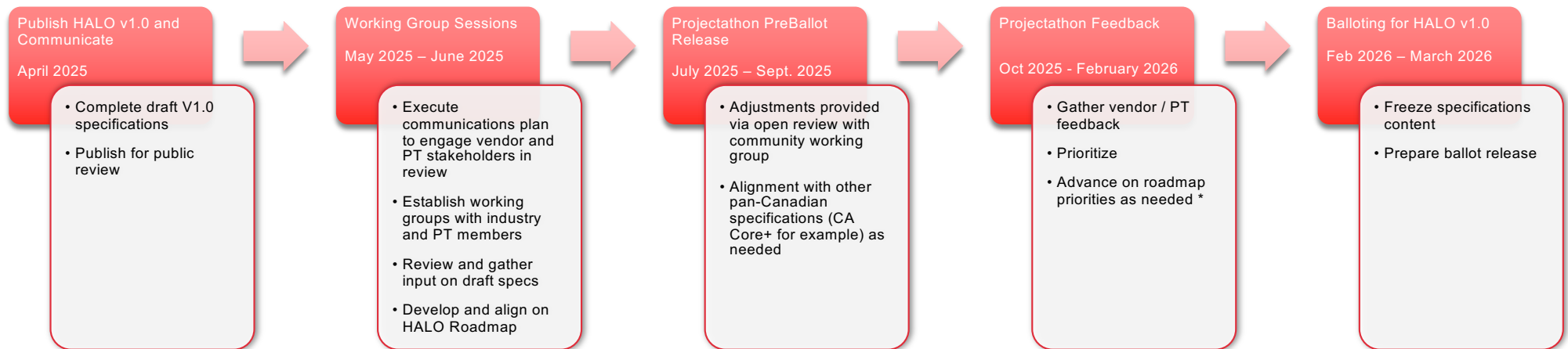
HALO v1.0 specifications has been authored with co-developing PTIs, facilitated by Infoway and using Infoway's Collaborative Specifications Development Process via an initial project and associated governance.

- The initial project team consisted of the Early Partners (currently Infoway, BC, ON).
- Broader engagement with additional jurisdictions and market participants is underway, providing feedback during broader engagement (working group) and ballot process and informing future scope.

Goal: a Pan-Canadian specification that can be built once by vendors and leveraged multiple times across Canada

HALO V1.0.0 Publication - Approach

Timelines are tentative while team engages in detailed planning based on internal and external resource availability.



Working Group Objective:

Collaborate on the various aspects of the draft HALO v1.0.0 framework resulting in a **pan-Canadian specification** that can be implemented across the country.

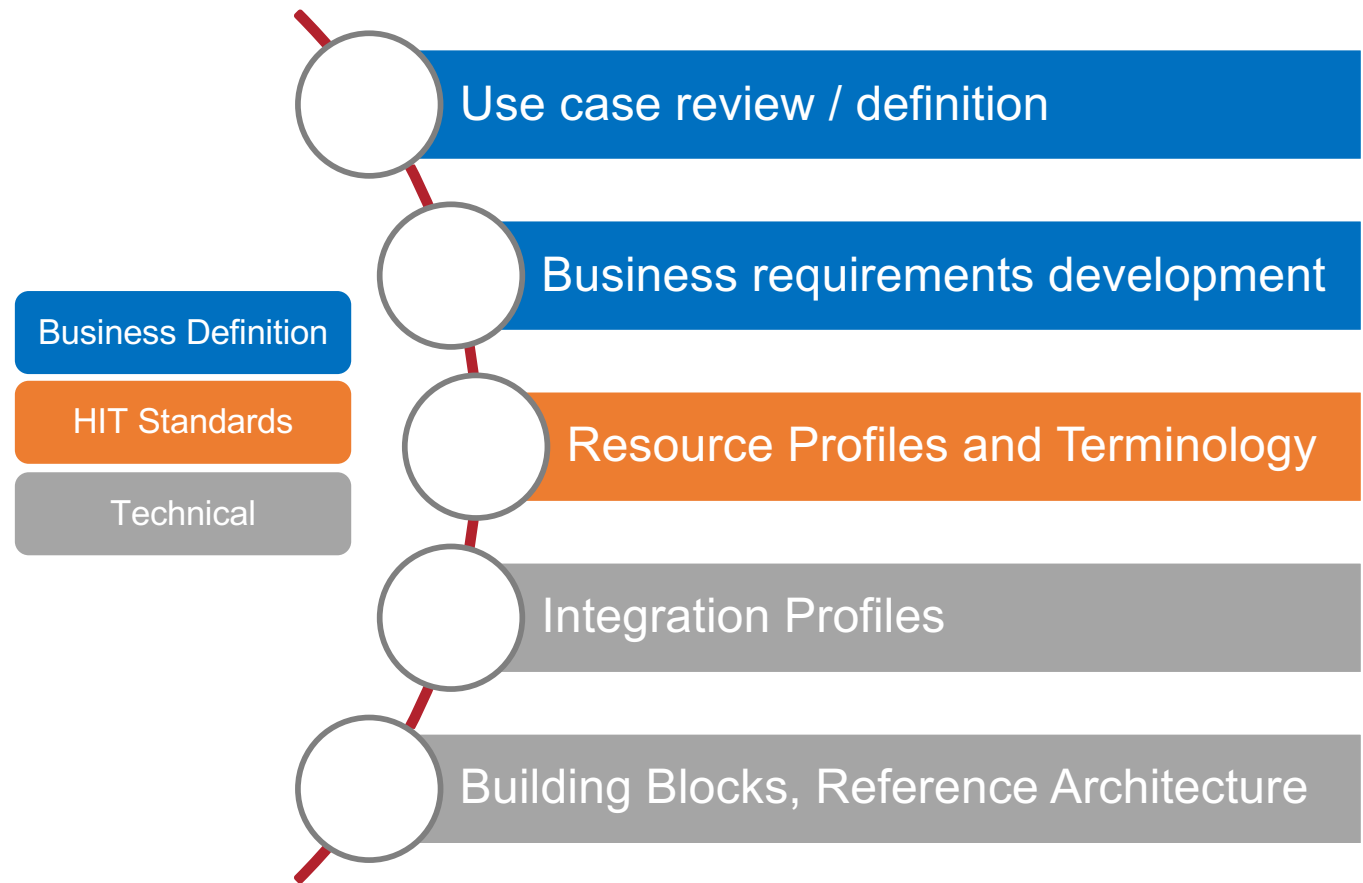


The immediate goal of the working group will be to review HALO v1.0.0 draft specification for implementation readiness and address immediate feedback for a **September release**.



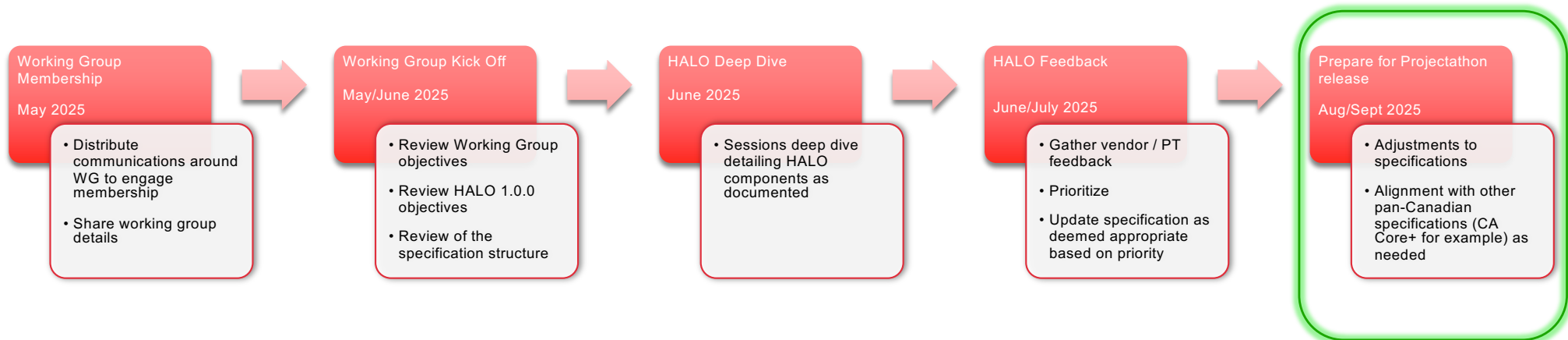
Working Group Structure

- Designed to be functional and multidisciplinary, formed by a variety of subject matter experts ranging in expertise
- Time limited and working toward a product/deliverable
- Documentation is stored on InfoCentral (shared documents, meeting notes, recordings, etc)
- Communications are conducted through InfoCentral (e.g., forum posts, announcements, meetings)



HALO Working Group: Proposed Meeting Structure for V1.0 Review

Breakdown is tentative and may evolve as we progress



Next Steps & Discussion



1. CHI to send official WG membership invite emails
2. Organize working group kick off



Questions and Discussion



Canada Health Infoway

Thank You!

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