PROVINCE OF BC | DIGITAL HEALTH INITIATIVE

Digital Health Initiative

Where are we now and where are we going?

BCHIMPS
October, 2019

BRITISH COLUMBIA

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Digital Health Transformation Imperative

Why British Columbia is undergoing transformation of health care delivery towards better health outcomes.

$21 Billion

A year is spent on health care in BC, nearly 50% of direct provincial spend; these rising costs are not sustainable

Misfocused

Health system remains largely focused on hospital and not remaining independent practices

Siloed

Critical health information locked in systems or on paper. Making it difficult for care givers to provide coordinated end-to-end patient care across care continuum

20%

Of BC residents are living with two or more chronic conditions

15%

Of the population today is over 65 years old - over the next 20 years, the proportion of seniors will double

Disconnected

Patient services are too often fragmented, untimely, and inefficient

Disparate efforts

Lack of coordination across health system to invest in improvements is further fragmenting efforts towards an integrated system of care

Digital Innovation is Transforming Health Care

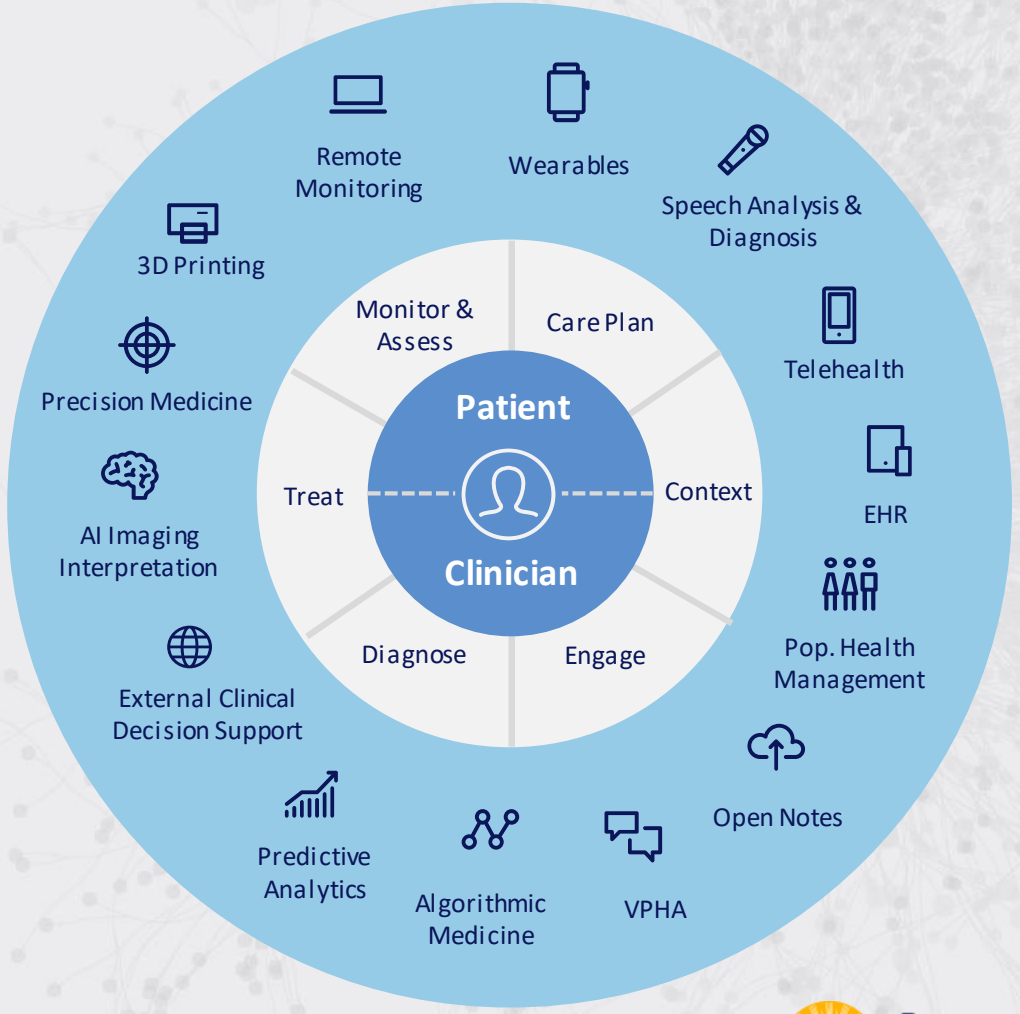
Disruptive yet vital role in tackling issues of sustainable, scalable and automated services to meet increasing demand.

Three biggest disruptions:

Explosion of consumer-centric health care to empower patients.

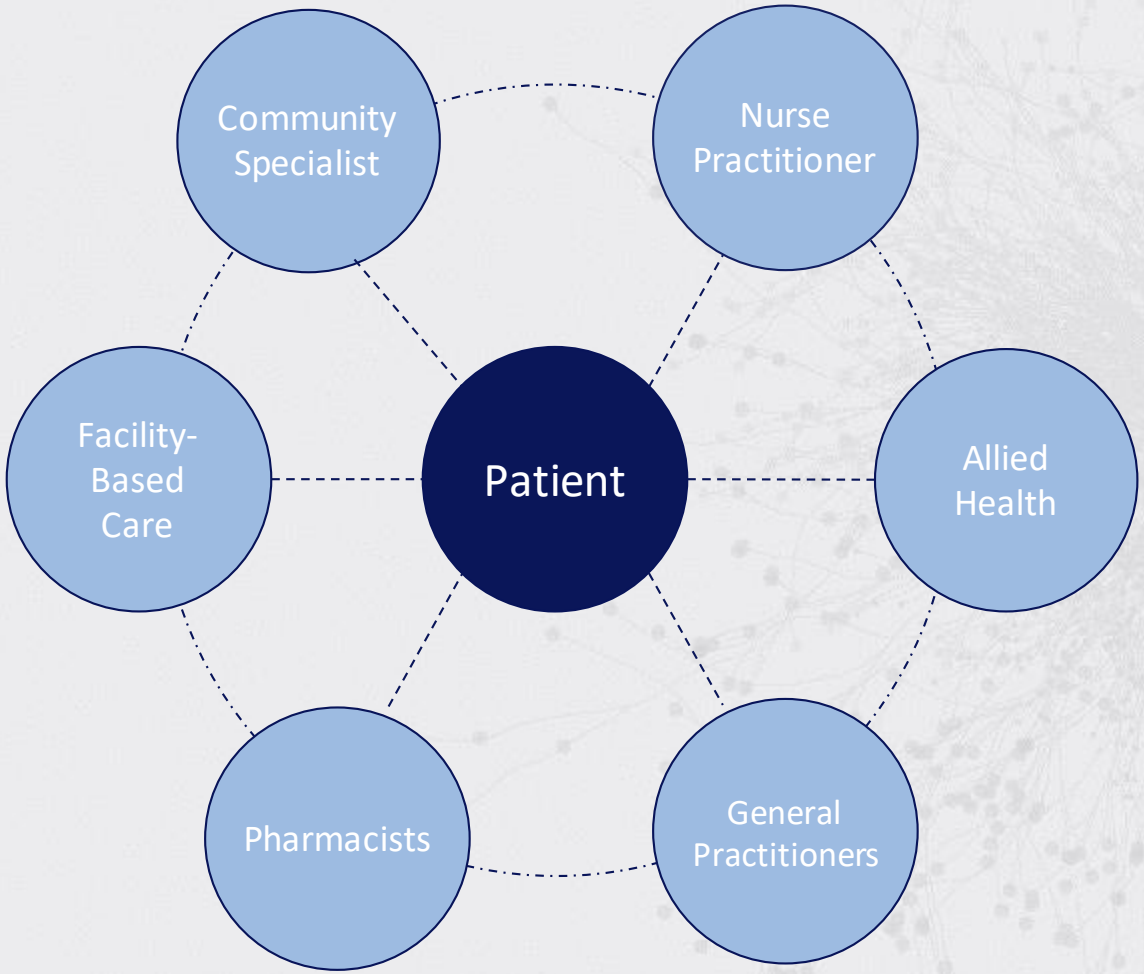
Digital access to health care which eliminates geographic barriers.

Advancements like precision medicine, artificial intelligence and analytics pivots health care to “wellness, prevention and self-management”.



Our sector is shifting towards emphasis on team-based care

As our priorities shift, we will need to break down traditional silos



Goals

Patient Empowerment

Empower patients as partners in their care and wellness

Integrated Care

Create an integrated and comprehensive team-based care experience for patients and clinicians

Improved Care Team Experience

Build a culture of trust, collaboration and joy in work to support the care team in delivering quality health care

Enhanced Decision Support

Provide timely, accessible, accurate information and tools to support clinical and system planning decisions

Vision

Optimal health and wellness for every British Columbian

Mission

Co-create an integrated and sustainable health care system that delivers improved health outcomes and embraces a culture of innovation, trust and partnerships

Five Strategic Pillars to Digitally Enable Health Transformation

1. Empower Patients
2. Transform Primary, Specialist & Community Care
3. Transform Hospital-Based Care
4. Advance Analytics Capabilities
5. Enhance Foundational Clinical Systems

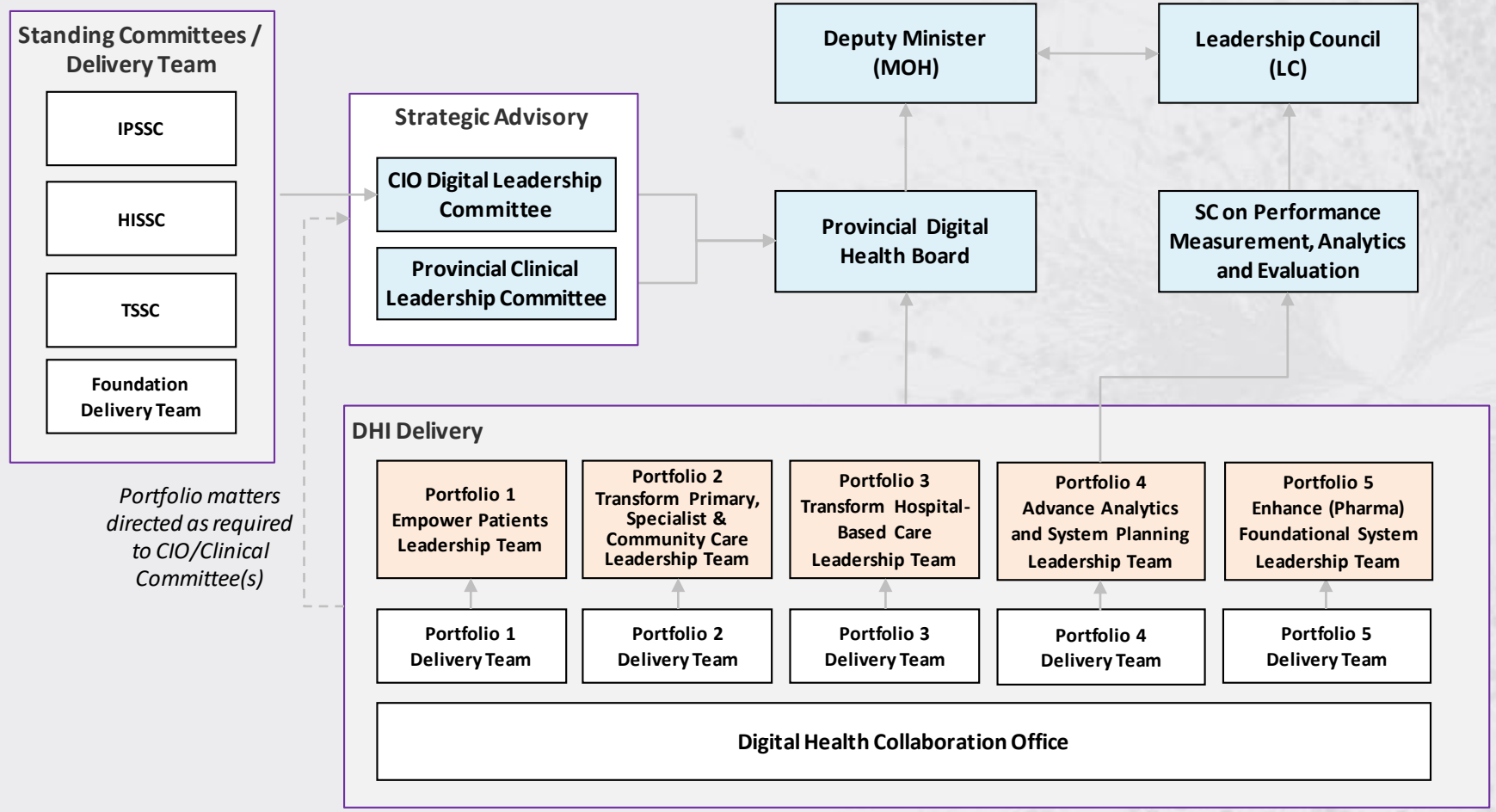
Digital Health Foundation

- Infrastructure
- Policy and Standards
- Privacy and Security
- Identity Management
- Architecture

Digital Health Transformation Principles

Patient Experience • Provider Experience • Learning & Insight • Accessible & Appropriate
Cost-Efficient & Sustainable • Supports Population Health Outcomes • Privacy & Security

DHI governance structure – Year 1

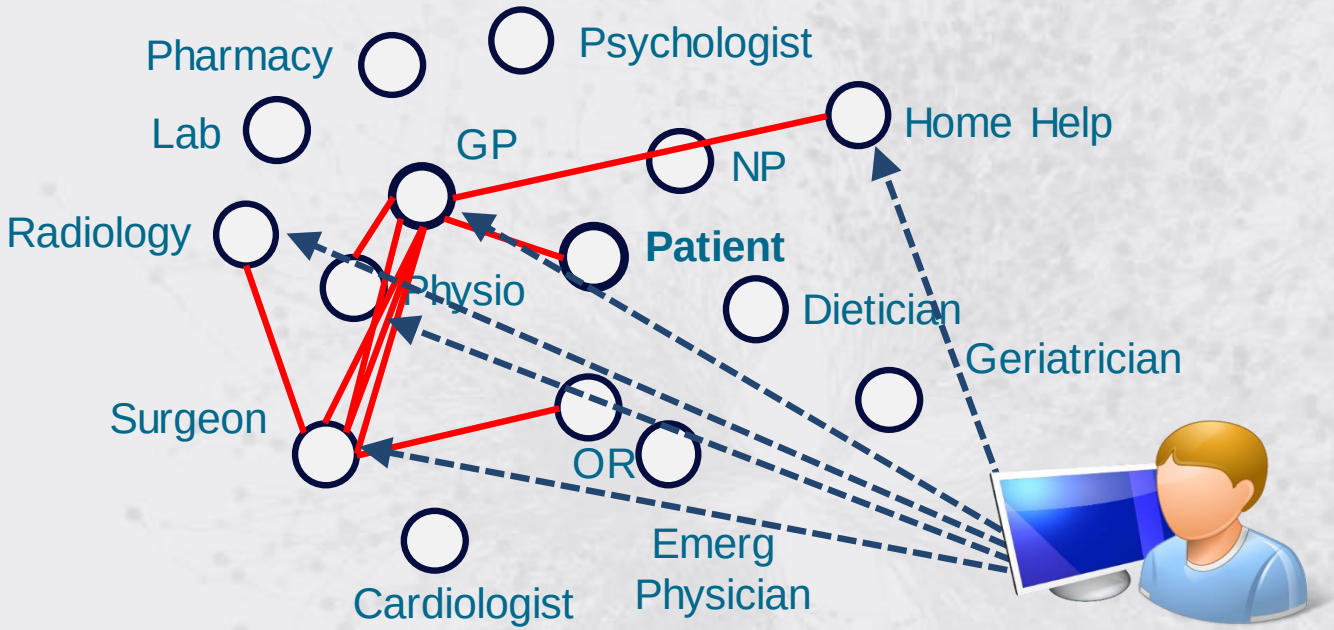


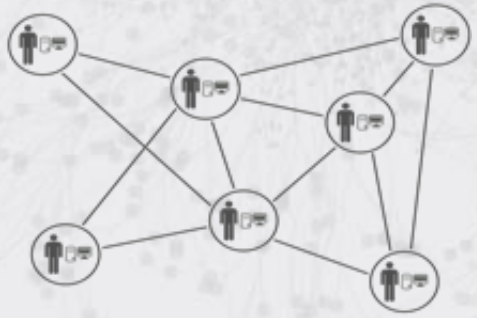
Legend: Strategic Governance | Delivery Governance | Delivery Teams

Primary Focus: Digitization of Team-based Care

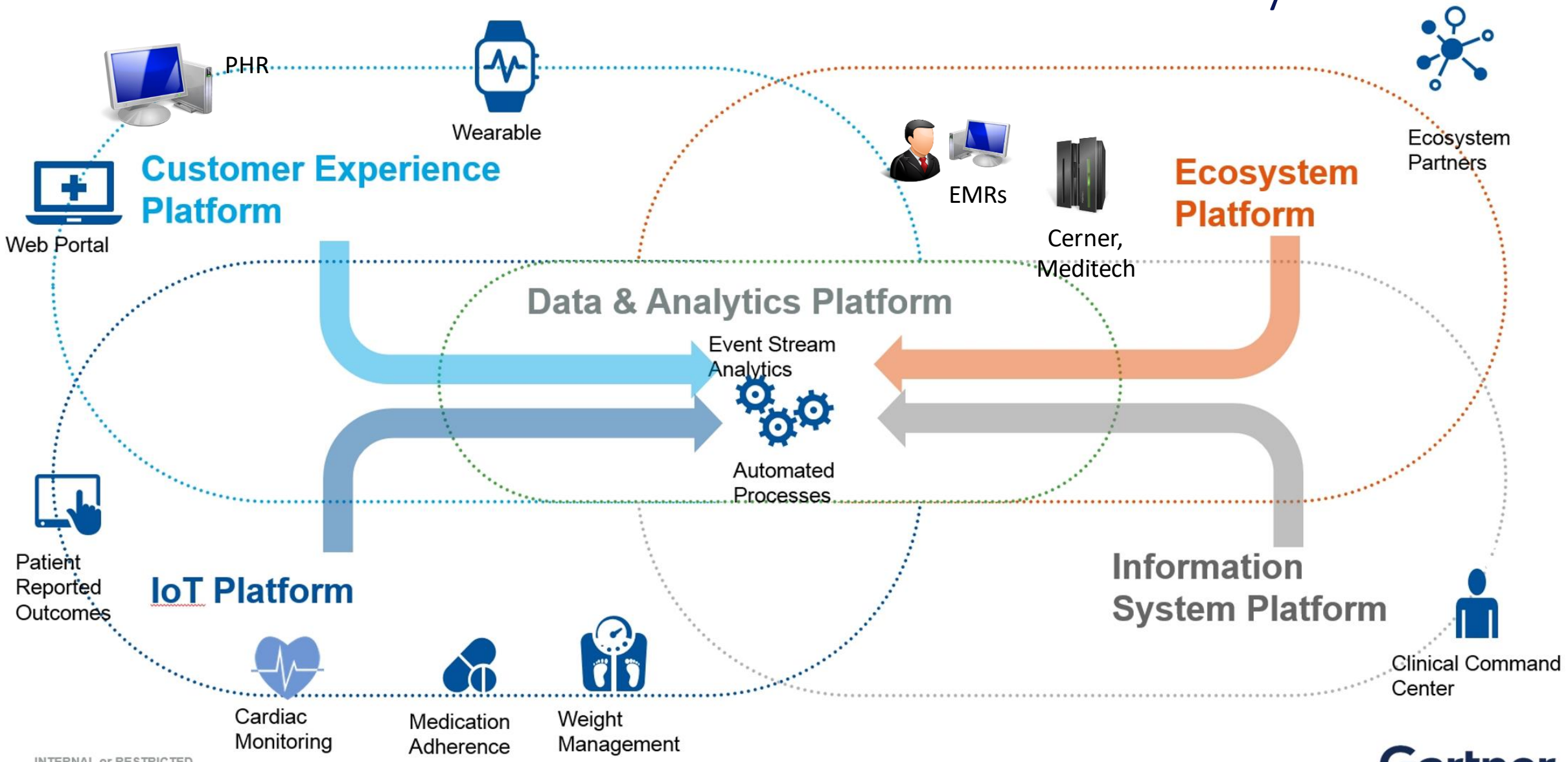
Focus is collaborative development of:

- An ecosystems for patients and providers
- Platform for integrated, enhanced patient experiences & outcomes
- Access to all health info & services
- Open, standards-based architecture
- Integrates with wider health sector assets and private sector solutions
- Grounded BC in reference architecture
- Interoperable with diverse systems and tools





Standards-based Multi-Vendor Platform Ecosystem



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DHI Year 1 high-level priorities

Year 1 focuses on creating an impact on patient empowerment and primary & community care, while also establishing a strong governance, policy, and technical foundation for the delivery of digital health in BC

Portfolio 1: Empower Patients

- Health Gateway Minimum Viable Product (MVP)
- Patient Access Strategy & Roadmap
- Virtual Care Policy Framework
- 1-2 Virtual Health Pilots
- Optimization of home health monitoring
- Mental Health & Substance Use Virtual Pilot

Portfolio 2: Transform Primary, Specialist & Community Care

- PCN IMIT Enablement Planning
- Activation of Priority Capabilities
- Innovation Acceleration Centres (IACs)
- Provincial Digital Solutions Toolkit
- Provincial EMR Vendor Management Strategy

Portfolio 3: Transform Hospital-Based Care

- Various, in collaboration between Health Authorities and PHSA

Portfolio 4: Advance Analytics Capabilities

- Data quality improvement
- Health Data Platform
- Reporting Portal
- Health System Performance Mgmt Framework
- Data governance framework for Indigenous People's data
- Advancement from Descriptive to Predictive Analytics

Portfolio 5: Enhance Foundational Clinical Systems

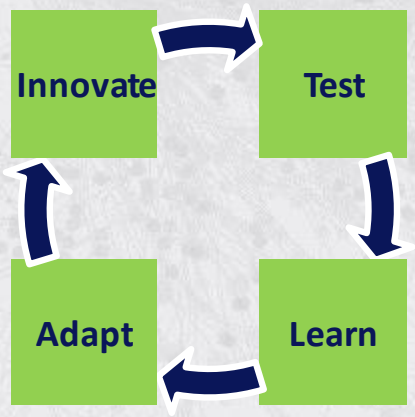
- End-to-end Pharmaceutical Business Strategy
- PharmaNet Roadmap and Priorities

Some pending approval

Digital Health Foundation

- Reference Architecture
- Enterprise IDAM Strategy and Roadmap
- Expansion of Priority Capabilities (CDX and CareConnect) and Evaluation of Provincial Scalability
- Provincial privacy & security standards & policy

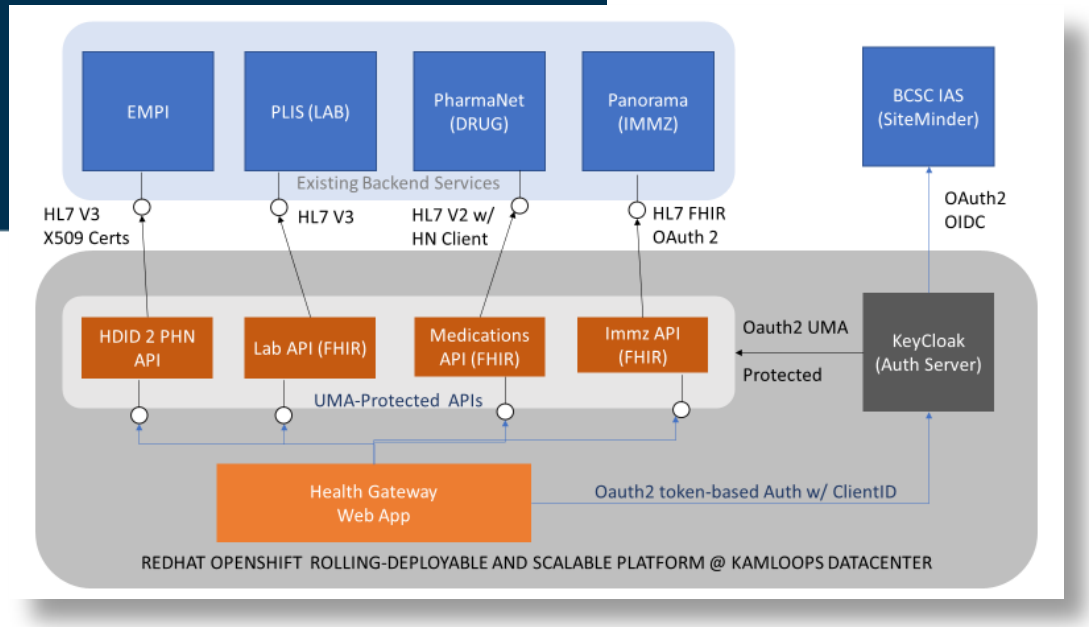
Areas of Early Exploration

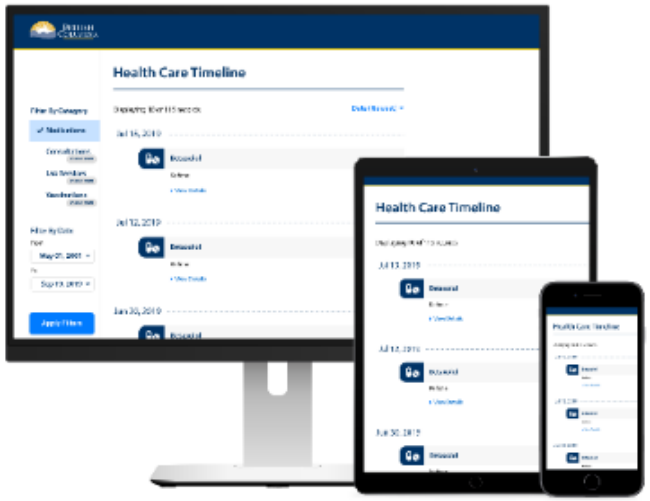


HealthGateway

Empowering you to manage your health

Branding TBD





A single place to view your health records

Visits to clinics, lab test results, prescription medications, and vaccinations.

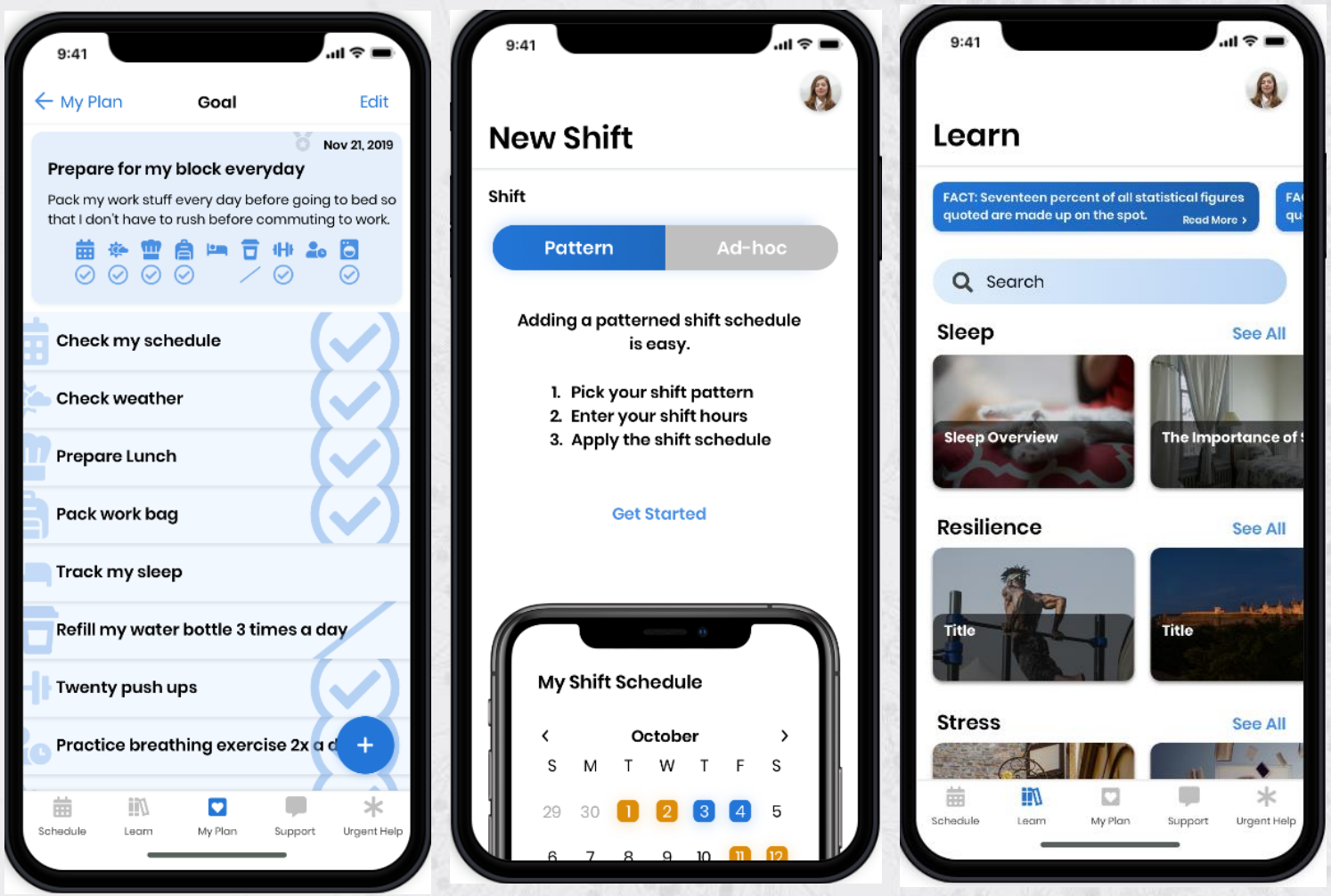
Wireframes for target MVP

Documented and published on GitHub

BCEHS Application

Specific content, interactive tool for shifts, and more

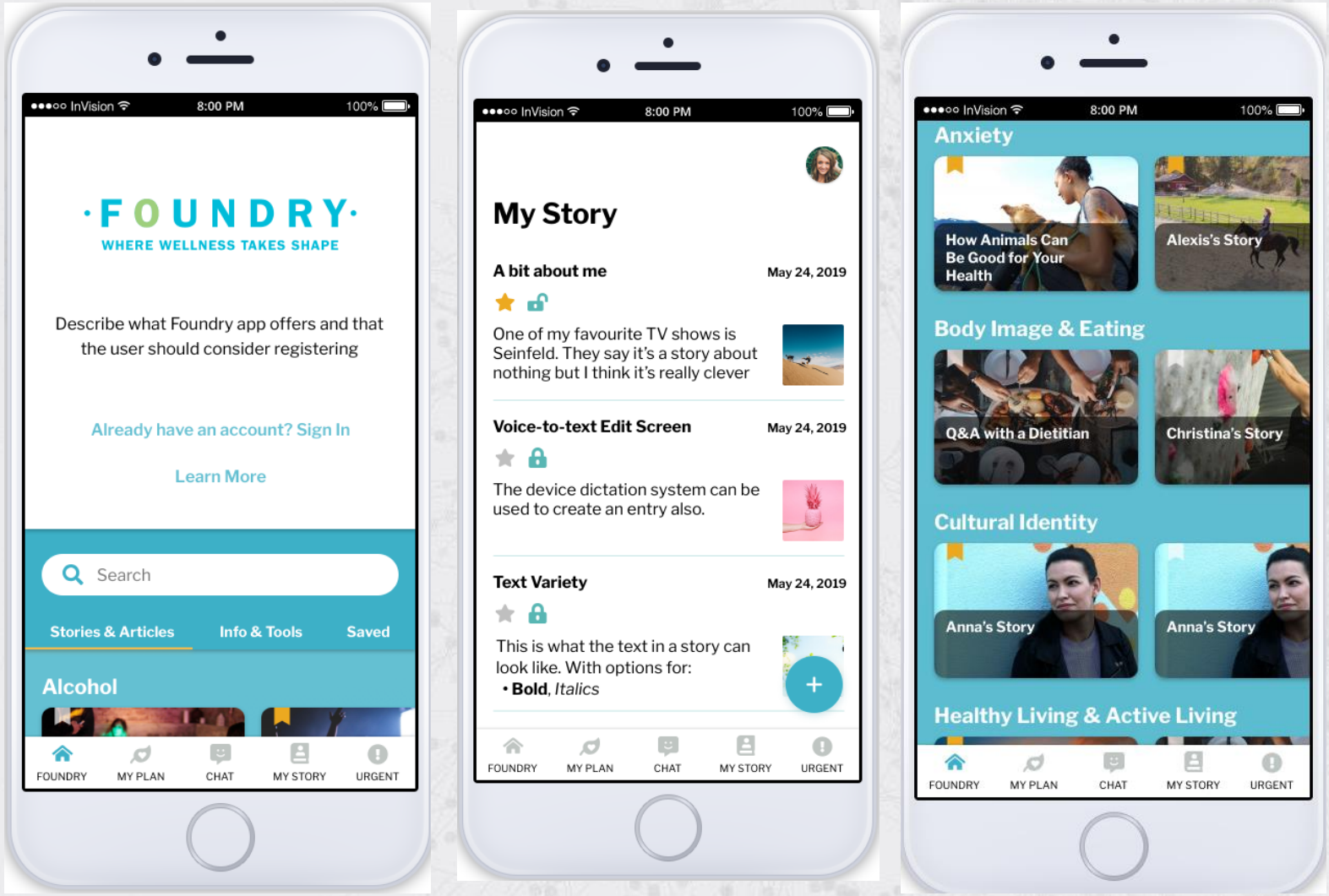
- Co-designed by BC EHS employees and the Critical Incident Stress Program
- Developed and reviewed by trauma trained clinicians
- Tools, content contextually linked with schedule
- Reminders and trackers create a highly interactive experience



Foundry/BCCH

Targeted content, services and peer support

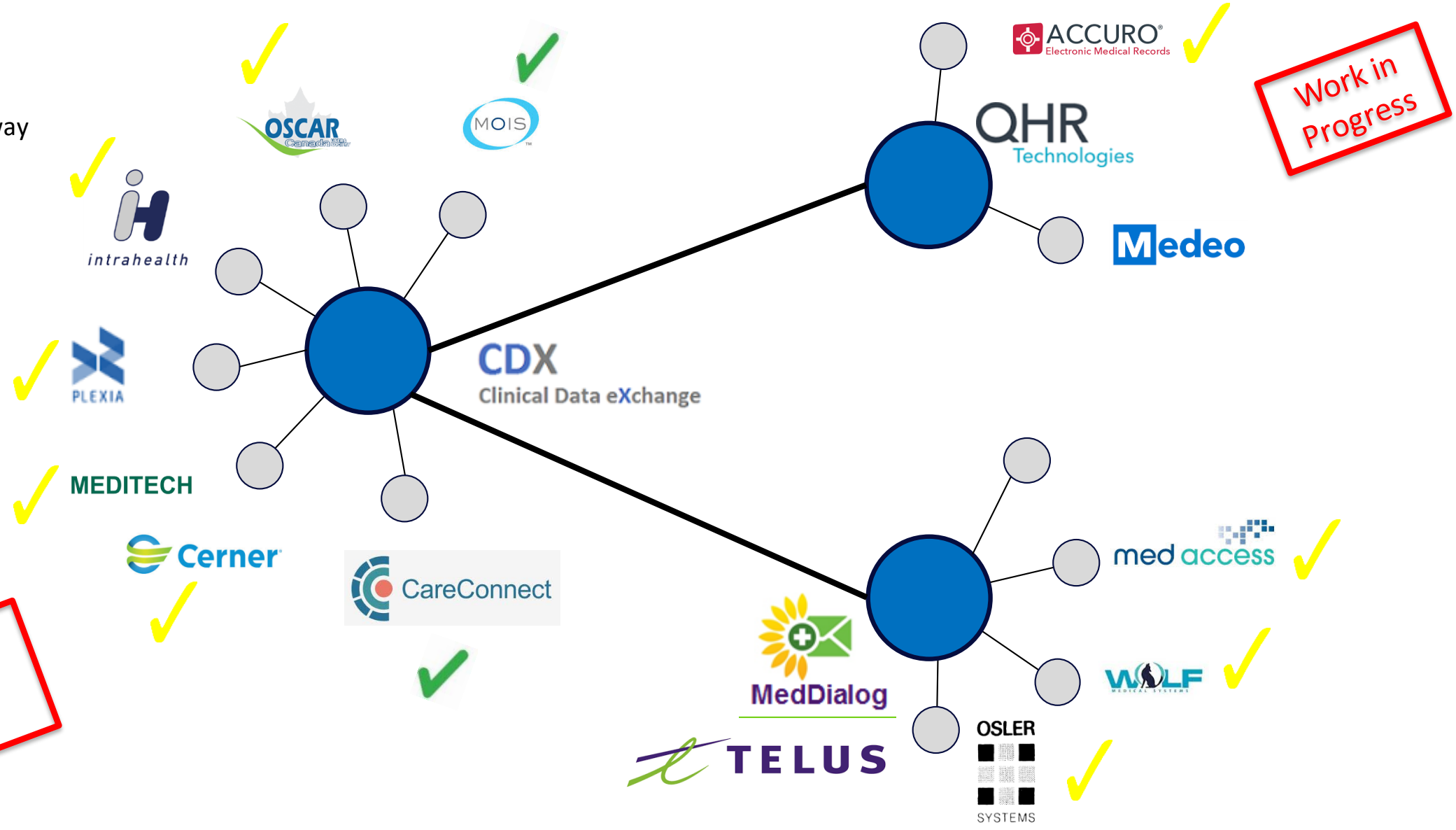
- Co-designed by the project's Youth Advisory Committee
- Intuitive, easy to use
- BC Childrens's Hospital provides content
- 'Favourite' articles for off-line viewing
- Mobile friendly
- In-app Action Plan, Goals, chat (to peers & counsellors)



Evolving Information Exchange Capabilities

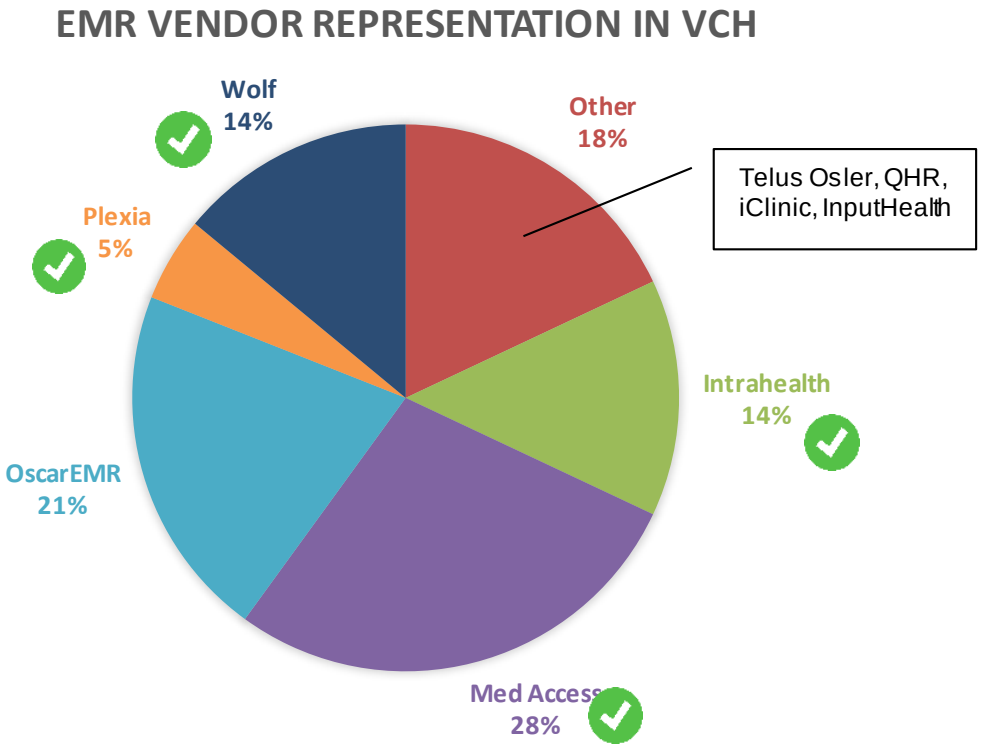
✔ Complete

✓ Development Underway



Expansion of CareConnect Access

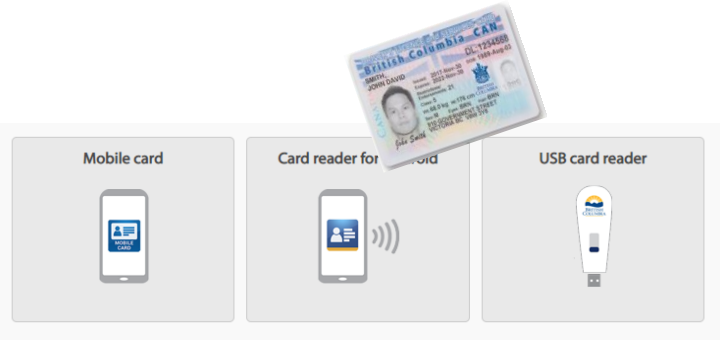
- ~2-5 seconds (including logging on for the first time during a session) for physician to get from patient record in EMR to patient record on CareConnect.



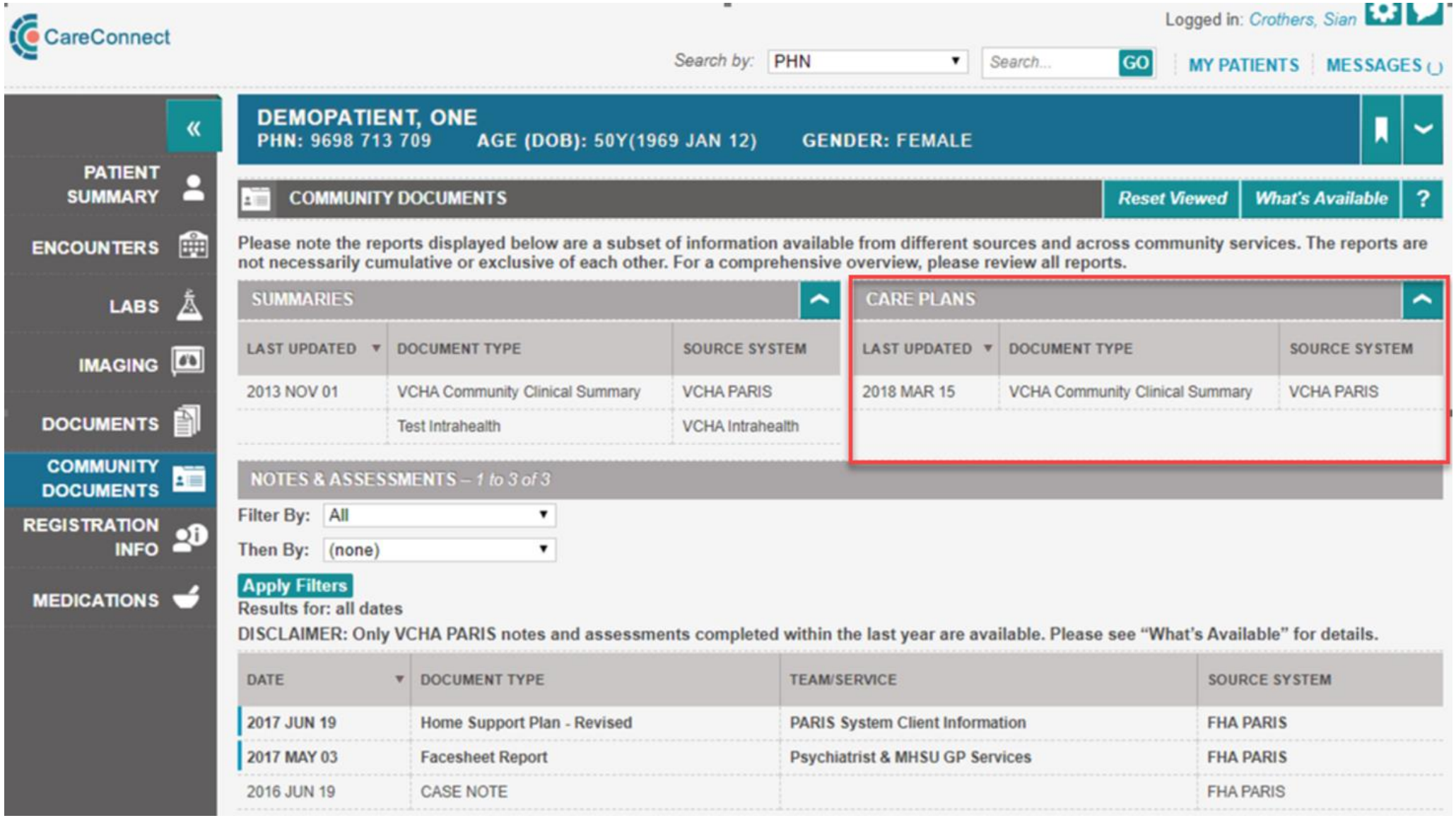
"Rapid Access" Integration Status

- **Integration Complete**
  - Telus Med Access
  - Telus Wolf
  - Intrahealth
  - Oscar
  - Plexia
- **Integration Pending**
  - QHR Accuro

- Integration between EMRs in Private Practice and CareConnect leverages PPN
- The PPN is available to all clinics in BC that use a cloud-based EMR



Expansion of CareConnect Content



PHSA Prototype eForms Solution

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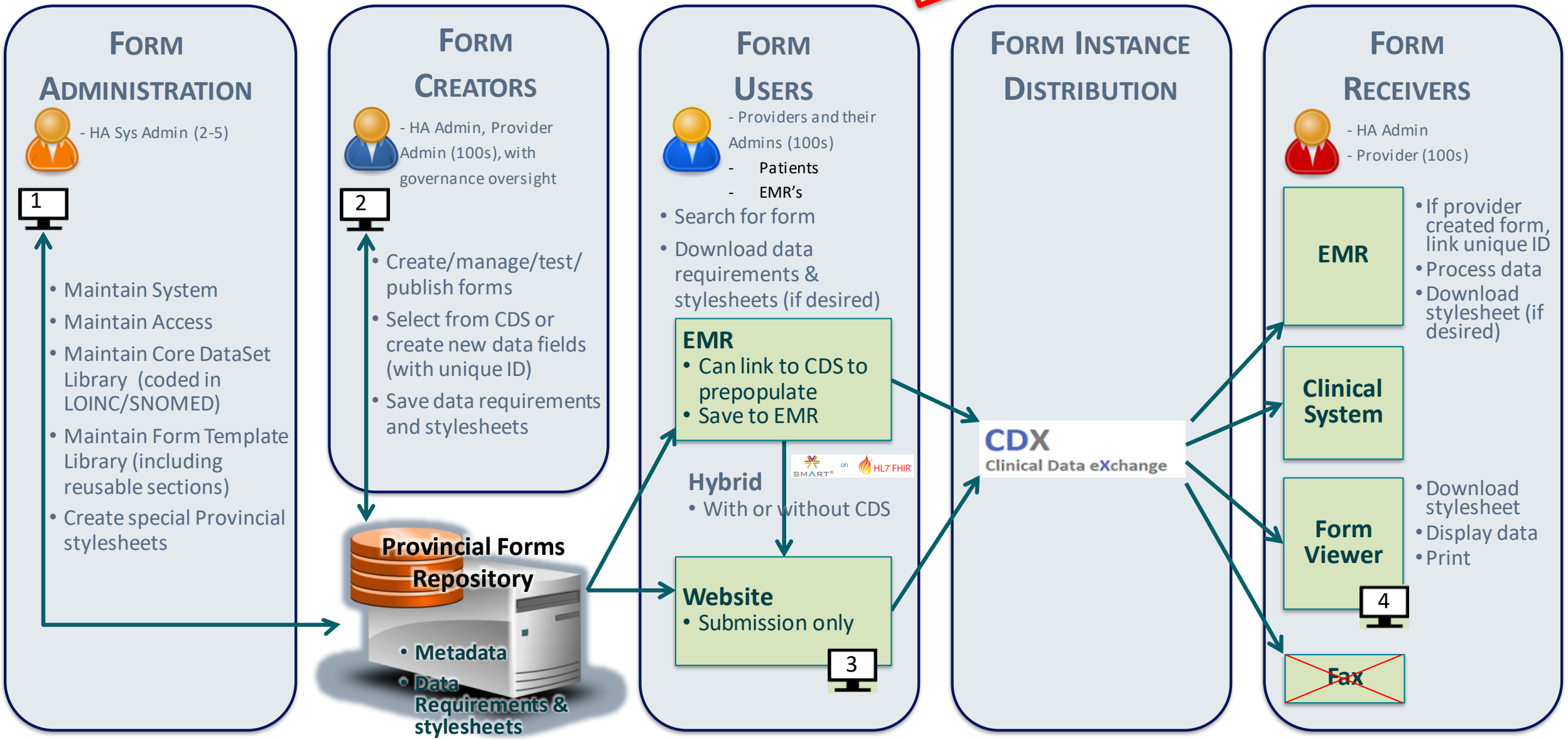
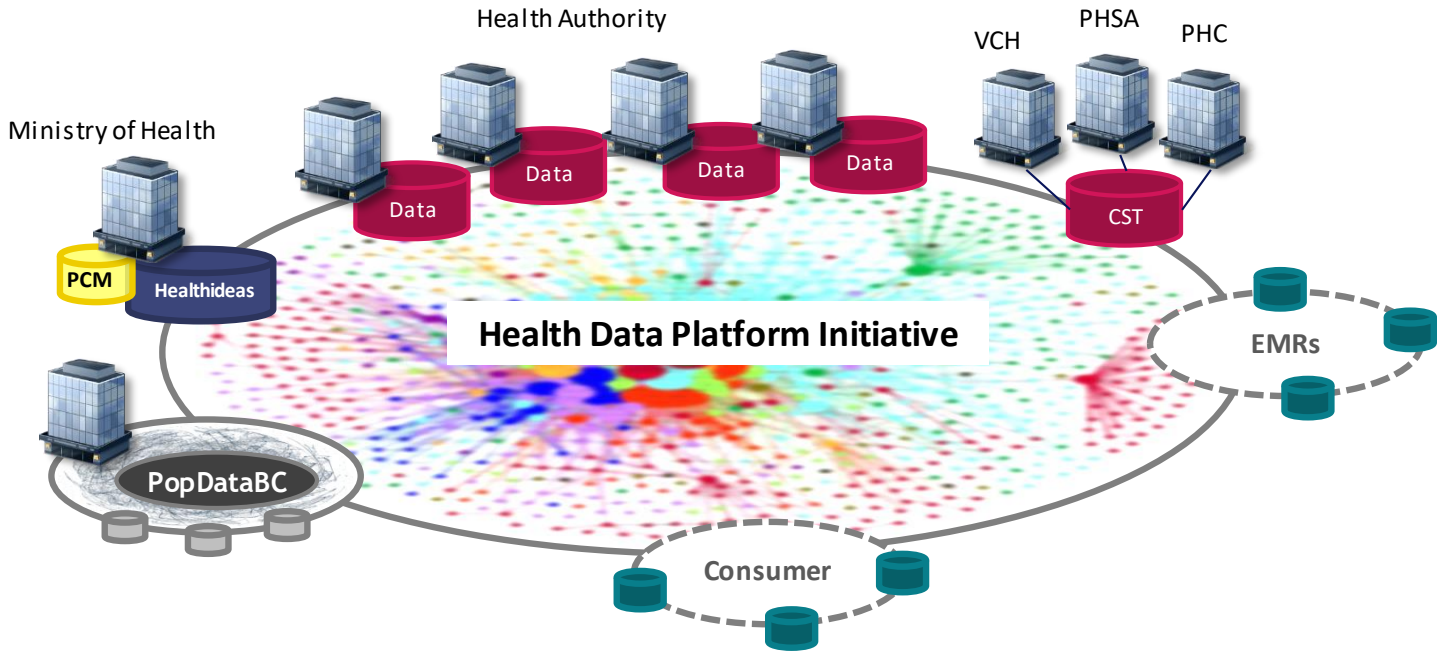


CDS = Core Dataset

Health Data Platform



Draft

- BC provincial analytics platform, public asset, led by MOH
- Distributed governance with local data stewards, local control
- Federated system, on-demand discovery & aggregation
- No central data lake/warehouse
- Trusted external third party doing linking, de-identification
- Streamlined data access processes

PCN Digital Capability Bundles – Short Term Direction

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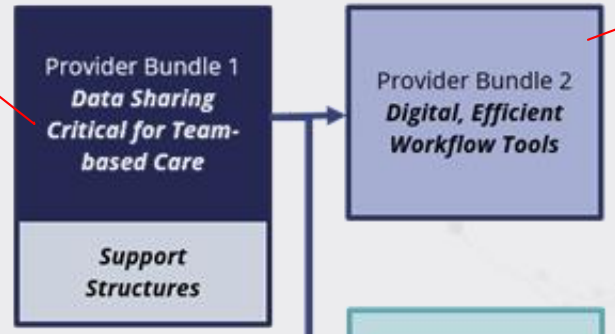
Info sharing for providers
Send info between EMRs/CIS
eReferral, eConsult
CareConnect access in PCN
Richer content in CareConnect



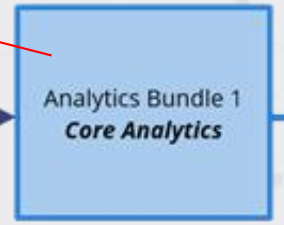
Digital workflow tools
ePrescribing
Electronic forms

Info sharing for citizens
Citizen Health Gateway

Communications for providers
Secure communication across care team
Interoperable telehealth
Record conversations in EMR/CIS

Communication for citizens
Secure communication with patients
Send copy of conversation to PHR/email

Core analytics
Practice-level QI capabilities



Advanced analytics
Linkage of data for cross-team QI
Integration with Health Data Platform

Questions?