



B.C. Digital Health Strategy

A digitally enabled health system *trusted by all who use it.*



In
Partnership
With



Ministry of
Health



Provincial Health
Services Authority



Interior Health
Every person matters.



island health



First Nations Health Authority
Health through wellness



fraserhealth
Better health. Best in health care.



northern health
the northern way of caring

Vancouver
Coastal Health

doctors
of bc
Better. Together.

The Digital Health Strategy was commissioned by the B.C. Ministry of Health and led by Provincial Digital Health Leadership at Provincial Health Services Authority and the B.C. Ministry of Health.



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Introduction

The Province recognizes that digital health is a key enabler for a more sustainable, connected, and integrated healthcare system that supports health and wellness for all people in B.C. Broader digitization of health services is outlined in numerous provincial strategies including primary care, cancer care, mental health and substance use, senior's care, hospital services, surgical and diagnostic services, ambulance services, and health human resources. The B.C. Digital Health Strategy has been developed to:

- Improve provincial alignment on digital health solutions and investments across the health system.
- Embrace patient experiences to improve patient centred care and cultural safety within our health system today and in the future. Focus on health information accessibility and continuity of care.
- Leverage lessons learned from the COVID-19 pandemic and apply them to the new challenges facing the health system.

What is Digital Health?

Digital health is an all-inclusive term used to describe the use of information technology and secure communications tools, services, and processes to support an integrated health care system for the benefit and well-being of all patients and health care providers.

Digital Health:

- Enables secure, equitable and trusted access to health information to empower and enable British Columbians to support their own health management.
- Weaves together the patient and provider experience, creating choice and flexibility in the delivery of care.
- Promotes efficiency in workflow and clinical practice by integrating relevant health information.

Some examples of Digital Solutions Include:



Access to personal health records



Virtual Health



Remote monitoring of health status



Personalized health and artificial intelligence



Provincially integrated information



Health information technology



Wearables



Supporting infrastructure/technology

Strategic Direction for Digital Health in B.C.

The strategic direction for digital health in B.C. is articulated through the goal, vision, guiding principles, and strategic objectives, which are detailed in the following sections.

GOAL AND VISION

The B.C. Digital Health Strategy goal and vision offer a beacon to guide the direction for digital health in the province.

The strategy's goal articulates the outcome that all partners working within the health system are trying to achieve.

GOAL: A digitally enabled health system trusted by all who use it.

The strategy's vision articulates the future state and how it will be accomplished.

VISION: Digital health services, tools and processes support a connected, safe, and trusted health system that empowers all users and addresses population health needs.



Guiding Principles of the Strategy

We must adopt shared principles that guide how we collaborate, design services, deliver technology and operationalize our work to meet the needs of all users of B.C.'s healthcare system.



These 6 Guiding Principles outline key considerations integrated into the provincial Digital Health Strategy to ensure it sets a path towards an effective digitally integrated health system.

EQUITY & INCLUSION

Create a digital health system which reflects the cultural, demographic, and geographic diversity of the province. A system that respects marginalized communities and recognizes the unique needs of Indigenous Peoples including the Indigenous-specific racism they face – all to ensure culturally safe and appropriate access to health care services across B.C.

PROVINCIAL MINDSET

Employ a provincial outlook and foster collaboration to ensure that digital health solutions developed for British Columbians meet the evolving needs of all user-groups across the province.

SYSTEM OPTIMIZATION

Leverage digital health solutions to improve clinician workflow; increase provider capacity; and enhance human health resources productivity resulting in reduced health system costs and administrative burden.

PROGRESS OVER PERFECTION

Ensure limited resources are used wisely and existing solutions are leveraged to make steady progress towards provincial digital health objectives.

INNOVATION

Be agile and flexible in the adoption of innovative digital health tools and technologies throughout the continuum of care to transform the patient and provider experience.

FUTURE FOCUSED

Integrate future-focused perspectives within planning and investment decisions to achieve the long-term vision for digitally enabled care.



Strategic Objectives

The B.C. Digital Health Strategy defines four strategic objectives for digitally enabling the health system. These strategic objectives were derived from the globally recognized Quintuple Aim, extensive consultation across the health sector, and a review of strategies across other jurisdictions.

STRATEGIC OBJECTIVE

1

Empower Patients

OUTCOME: Patients are empowered to be active participants in their health journey.

Patients interact easily with the health system and are empowered with digital tools and secure access to health information. This will enable them to be active participants in their health care journey with the ability to choose the time, nature and location they receive trusted and personalized care.

The vision is to provide well-connected doors to patients and their caregivers to seek easy and timely access to health information and services, when and where they need it.

How do we get there?

Key actions to empower patients to support improved health outcomes:

- Develop a consistent approach for patients to access their health information, including family or dependents, and access to virtual care.
- Become a trusted source of digital tools and health content to support literacy and personal health management.
- Leverage digital and virtual health within service delivery to help patients take greater control of their health system interactions and experience easier access to health care services.



What does this mean for people in B.C.?

Patient access and equity are enhanced with greater ownership over health data and capabilities to choose the time, nature, and location they receive trusted and culturally safe care.

Patients, their families, and caregivers are often challenged to navigate a fragmented health care system. Through patient engagement, teams seek the voice of the patient and their experiences to inform decision making and provide solutions that improve care delivery regardless of the point of care.

Key initiatives:

Health Gateway and Patient Engagement Tools

The BC Health Gateway gives patients secure online access to their health information in a convenient way. The province is increasing access to personal health records for British Columbians through this digital portal, in alignment with Health Canada priorities. The Health Gateway portal empowers people to be active participants in their care journey by providing them with secure and coordinated access to their personal health information, including lab and screening test results, vaccine information, medical imaging results, and prescribed medications. B.C. is continually improving the Health Gateway functionality, adding more health information and patient health interactions to it.

Appointment booking capability has been provided consistently across the province during the pandemic, with a focus on COVID-19 vaccine booking. This service allowed all B.C. residents to be alerted to their vaccine schedule. This has been expanded to pharmacy minor ailment bookings across the province and will continue to be leveraged and expanded to improve patient interactions in other care settings.

Digital agents such as Chatbot are rapidly expanding to support patients with answering questions in an automated fashion. Chatbot capability has been launched for common questions about cancer and COVID-19 using information from BC Cancer, the BC Centre for Disease Control, and the Province of BC. The digital agent provides live chat functionality, providing quality information to patients and care takers about cancer care, treatment, services, and programs, improving access to information to satisfy public needs while reducing demands on healthcare providers.

Virtual Care

B.C. is enabling appropriate use of virtual care in a consistent way across the province. This includes ensuring virtual care providers are operating within the guidelines of B.C.'s health system, and that information and follow-up care is connected to the system.

In the primary care environment, the HealthLink 8-1-1 line supports care virtually for patients who need access and can't get to a point of care.

Remote Patient Monitoring supports people with chronic conditions, enabling them to receive care from the comfort of their home setting. These virtual care offerings continue to be optimized and expanded in all areas of the province.

Quintuple Aim is a globally recognized framework for health care improvement which focusses on enhancing the patient experience, attaining better health outcomes, lowering costs, improving provider well-being, and supporting health equity.



STRATEGIC OBJECTIVE

2

Improve Provider Experience

OUTCOME: Providers are equipped with tools, capabilities, and support to meet the needs of today and tomorrow.

Digital tools and access to information are leveraged to improve the health provider's experience, reduce administrative burden, and increase their capacity to deliver efficient, trusted, and high-quality care.

How do we get there?

Key actions to improve the provider experience and enhance the quality of care:

- Create a consistent provider experience through the deliberate integration of digital tools, systems, and data.
- Extend reach and productivity of providers by using technology to innovate workflow and redesign digital processes for data collection, processing, reporting, and care delivery.
- Support education, training, and change management activities, including virtual peer support, to promote adoption and digital literacy.

What does this mean for health care providers in B.C.?

Providers face reduced administrative burdens, improved clinical workflows, and have increased capacity to deliver efficient, trusted, high-quality care.

Effective and scalable digital tools that are easily accessible and provide patient information are essential enablers in a care provider's daily work.

Care providers need to be equipped with digital tools that include trusted longitudinal patient data across the sector; support efficient ordering of health services; enable critical data sharing with other care providers; and improve interactions and workflows across the continuum of care.



Key initiatives:

Provincial Attachment System

The Provincial Attachment System provides management and rostering solutions to address the urgent need to actively monitor and facilitate patient attachment to a primary care provider in their community. The Health Connect Registry is available for any patients that are seeking attachment. This includes patients that may be losing their current family doctor, or patients that are moving and require a new primary care provider. This Registry is part of the Patient Attachment System to identify patients in need of a provider and help facilitate appropriate matching. The Patient Attachment System enables the collection and maintenance of clinic and provider information to support capacity management and primary care reporting.

Access to the patient's health record expedites the clinician's ability to make informed decisions for the patient they are treating.

Provider Access to Longitudinal Health Data

This initiative is working to provide healthcare providers with access to the complete health information on their patients in an integrated and easily accessible fashion.

CareConnect is a province-wide electronic health record viewer enabling a complete patient record to health care providers, including access to information from outside the health authority's own system. Nearly all health authority providers in B.C. have access to CareConnect, as it continues to be rolled out, providing them more fulsome data on a patient's health history. Access to the patient's health record expedites the clinician's ability to make informed decisions for the patient they are treating. Provincial work is underway to optimize CareConnect and enhance data sharing across different care environments, including between primary, community, and specialty care.

Artificial Intelligence work is underway to assess the ability to reduce a provider's time in managing administrative tasks.



STRATEGIC OBJECTIVE

3

Establish a Connected Health System

OUTCOME: A connected system that enables seamless and secure sharing of health data among all users across the care continuum.

A connected health system is centered on enabling data accessibility and flow between all users across the care continuum. Establishing a connected health system in B.C. requires further development of foundational information exchange capabilities.

A unified approach needs to follow industry best practices for interoperability standards and technologies to transfer and securely share information across systems and people in the province. The vision is to enable digital information exchange tools that can improve the care team experience, support better decision-making and provide a platform for any consumer or system within B.C. to send and receive data — securely and immediately.

How do we get there?

Key actions to empower patients to support improved health outcomes:

- Employ a coordinated approach to supporting interoperability across regional boundaries and providers at all levels of care (i.e., primary, secondary, tertiary).
- Follow industry wide standards and approaches to support efficient health information sharing across the province.
- Formally collaborate on provincial clinical solutions and processes to create efficiencies across the health system.

What does this mean for people in B.C.?

Patients and providers experience seamless journeys across the care continuum, enabled by data-informed clinical and system decision-making.

Today's clinical and business health information is fragmented, affecting the entire continuum of care. Information exchange between primary, acute and community care providers is at best onerous but most often unsupported. Health sector partners do not have essential modern digital tools and up-to-date information.

Supporting data exchange between patient and providers systems will ensure they have greater access to accurate health information leading to better decisions, increased efficiencies, and improved outcomes.

The connected health system objective is to group complementary information exchange initiatives together and establish digitally connected systems across B.C.

Key initiatives:

Provincial Clinical Information Systems

All health authorities have been advancing clinical information systems within their health facilities. Together, the health authorities have been coming together to ensure clinical standards are adopted more consistently into these systems. A provincial clinical information systems strategy and plan for an electronic health record accessible to both providers and patients across different care settings is being developed. A more tightly integrated plan will ensure health care providers and patients will have greater visibility of information that leads to better decisions, increased efficiencies, and improved outcomes.

Digital Referrals and Orders

The Digital Referrals and Orders portfolio of projects is working to achieve a set of integrated digital tools that enable providers and patients to securely share health data and streamline the delivery of care. A key focus is implementing electronic referrals and orders, to reduce health care workers' dependence on paper and fax transmission of information across primary, community and specialty care. This effort aligns with the pan-Canadian interoperability roadmap through Canada Health Infoway and Health Canada.

ImmsBC

This provincial system continues to support the BC COVID-19 Immunization Plan by offering a single solution to register and book vaccination appointments, send reminders about vaccine appointments, record the clinical administration of the vaccine, capture information about adverse effects, track inventory, and report on the vaccine rollout. This solution enables patients to book, track, and manage their immunization records through a single portal to support patient empowerment. Furthermore, it enables public health offices and those administering the vaccine to track inventory and consistently document the vaccine administration.

The Pan-Canadian Interoperability Roadmap is one of six pillars that inform Canada Health Infoway's strategy towards facilitating advancement to a connected health system tailored to all provinces and territories.



STRATEGIC OBJECTIVE

4

Enable the Business Enterprise

OUTCOME: Efficient business processes are enabled by modern, secure, and robustly sustained infrastructure and solutions.

Fundamental business infrastructure and solutions are integrated, and business processes are streamlined, creating efficiencies across the system.

How do we get there?

Key actions to empower patients to support improved health outcomes:

- Collaborate provincially on integrated systems within key business areas.
- Leverage digital solutions to enable the modernization of B.C.'s health care supply chain, improving data flow, asset tracking, and analytics.

What does this mean for people in B.C.?

Business processes are streamlined, creating efficiencies across the system; systems are modernized and secured to protect critical data.

Working towards establishing fundamental business infrastructure and integrated solutions (e.g., Human Resources, Finance, Supply Chain etc.) across the health care system will allow for efficiencies through streamlined business processes and will improve related data sharing and analytics.



Key initiatives:

Provincial Coordinated Recruitment

This project supports the development of an integrated and coordinated provincial recruitment model for the health sector including the introduction of a new provincial candidate acquisition and relationship management system that enables monitoring, reporting, and evaluation. A new integrated and coordinated approach to international and inter-provincial recruitment will be implemented with concierge services to support candidate-employer matching, a provincial job board for all health authorities to use for external postings, expanded marketing activities, including social media, in-person and virtual campaigns, and enhanced licensing and immigration support services. This project will align with the Human Capital Management System and will assist in improved strategic workforce planning activities.

Human Capital Management System

This project will implement a new human capital management system (HR/Payroll) across the province's health organizations. This solution will provide employees with enhanced services, such as a single HR record, as they move through their health care career in the province. It will also improve workforce reporting to better inform decision-making and provincial investments in the health sector.

HealthLinkBC Digital Refresh

HealthLinkBC is replacing several of its legacy business systems with modern Patient Health Record, Omni-Channel call centre, Knowledge Base and decision support solutions. They are also updating several virtual services including the After Hours Coverage program and the Provincial Prescription Renewal Support program.

Successful delivery of the Digital Health Strategy objectives requires collaboration of partners across B.C.'s health sector. This includes patients and providers across community and regional health authorities, First Nations Health Authority, Provincial Health Services Authority, the Ministry of Health, the vendor community, academia, and health professional organizations.



Critical Enablers

To realize the full benefits of the Digital Health Strategy, the following critical enablers need to be in place to ensure successful delivery of the four Strategic Objectives:

Need	Action
Governance	
A dedicated and usable governance framework for ensuring accountability, decision making, and prioritization of provincial digital health is foundational to the successful implementation of the DHS.	Establish a coordinated approach to decision making with representation across provincial digital health interest groups to support the successful implementation of the Strategic Objectives.
Change Management	
Driving trust and confidence in digital technologies will require supporting change management efforts both provincially and regionally. Dedicated focus in this area is required to ensure an efficient and effective transition of the digital health ecosystem to the desired future state.	Invest in a change management and communication framework to support both patients and providers in adopting new behaviors surrounding newly digitized systems and processes.
Sustainable Funding	
Sustainable funding models that provide transparency into the prioritization, value model and decision-making process with focus on collaboration and coordination across health sector groups to ensure responsible use of limited resources.	Continuously adapt funding models to align with evolving capital and operating requirements to support both immediate priority initiatives, as well as future-focused initiatives.
Policy & Regulatory Changes	
Digital health within the provincial health system requires the province to ensure policies and regulations are in place that promote an integrated system of care for all who use it and facilitate optimizing the use of digital technology as an option across the care continuum.	Ensure enabling legislation, regulations and policies are updated as needed.
Recruitment, Development, & Retention	
To address health human resource challenges in digital health and ensure effective implementation of the DHS, there is a need to meet required staffing levels, minimize turnover, and establish a high level of digital health literacy.	Review effectiveness and efficiency of processes for hiring and onboarding new employees. Support strong retention practices and empower staff through investing in comprehensive training and professional development programs and development of progression pathways.

Need

Action

Process & Clinical Standards	
New digital solutions and models of care need to align with process and clinical standards to ensure the delivery of high quality and safe care in the province. Collaboration is also needed across the health system to enhance data standardization across the care continuum.	Ensure that consideration is given to aligning with the required process and clinical standards during the procurement, implementation, and adoption of digital health solutions.
Strategic Partnerships	
Collaboration is needed to proactively identify digital health trends, explore innovative solutions, and realize new ways of scaling existing solutions and emerging technologies to accelerate progress in addressing high priority health system challenges.	Reinforce and establish meaningful partnerships within the health ecosystem which includes industry, academia, and digital technology vendors. Work closely with First Nations Health Authority and other First Nations Leadership across the health sector to design and enable access to culturally safe digital health tools.
Privacy and Security	
Trusted data privacy and security is needed, enabling providers and patients to make confident choices around authorizing access and use investment in ensuring optimal privacy and security infrastructure is in place to support the DHS is required.	Invest in and establish robust privacy and security infrastructure and controls to protect sensitive information, while also enabling the safe and efficient sharing of that information.
Architecture & Infrastructure	
Foundational architectural standards and information technology infrastructure needs to be established, centered on supporting interoperability across health care settings and systems. Connectivity is required across our Province, especially reflecting the need to improve connectivity in rural and First Nations communities.	Align planning and investment decisions to support foundational architecture and infrastructure that enables both immediate and long-term aspirations for digitally enabled care.
Data & Analytics	
The secure exchange of data is a critical enabler to expand and build core data capabilities across the care continuum. Quality data in real time is critical to optimize clinical and administrative decision making. Analytics capabilities can also provide clinical decision support and support with gaining actionable insights which can improve planning and measurement across the health system.	Digital health needs to work in partnership and collaboration with data and analytics teams to enable the transfer and sharing of health data to support decision making.

The B.C. Digital Health Strategy lays out the path to achieving the vision of leveraging digital health services, tools, and processes to enable a connected, safe, and trusted health system; a system that empowers patients and supports providers to address the health needs of British Columbians.

Successful delivery of the Digital Health Strategy objectives requires collaboration of partners across B.C.'s health sector. This includes patients and providers across community and regional health authorities, First Nations Health Authority, Provincial Health Services Authority, the Ministry of Health, the vendor community, academia, and health professional organizations.

Delivering on the prioritized set of initiatives supports the enablement and realization of the four Strategic Objectives: empowering patients, improving provider experience, establishing a connected health system, and enabling the business enterprise. In turn, we will be well on our way to delivering on our goal of establishing a digitally enabled health system which is trusted by all who use it.

For more information on B.C.'s Digital Health Strategy, email dhs.requests@phsa.ca.

May 2024

