

## Improving Digital Health Solutions in BC

*Last updated: July 2023*

### Doctors of BC Position

Digital health solutions<sup>i</sup>, such as electronic medical records, telehealth, virtual care, patient portals, communications platforms, etc., can play an important role in the delivery of care and health system improvement. However, the evolution of digital health in BC has come with challenges that prevent digital health solutions from being used to their full potential. As a result, Doctors of BC has developed recommendations and commitments to support improvement of digital health solutions and ensure they are beneficial to physicians, user groups, patients, and the health system.

To ensure effective implementation and utilization, Doctors of BC recommends that digital health solutions:

- Support information continuity and clinical workflows through interoperability<sup>ii</sup> and integration with existing solutions.
- Empower patients, support population health, and improve experiences of care for all users.
- Involve meaningful user engagement, including physician engagement<sup>iii</sup>, throughout the solutions' life cycle.
- Be supported by appropriate legislation, coordinated governance, and established standards that include protections for privacy and data security.
- Support continuous quality improvement and be subject to ongoing monitoring and evaluation.
- Be cost-effective for the system and demonstrate value and utility for physicians and user groups.

Doctors of BC commits to:

- Engaging with, and effectively advocating for, members on challenges and opportunities they face with digital health solutions.
- Supporting meaningful engagement and leadership of physicians in the life cycle of digital health solutions.
- Supporting physicians in adopting and leveraging digital health solutions to improve clinical workflow.
- Working with the Ministry of Health and health system partners to improve digital health governance in BC through inclusion of physician participation and leadership.

### Background

The transition from paper-based medical records, handwritten forms, and fax machines to using digital technology promised to bring greater efficiency and ease of use to physicians and patients alike. However, as digital health has evolved in BC, this has not been

the case. Instead, many physicians say electronic medical records (EMRs) are one of the primary sources of stress, burden, and barriers to efficiency in their practice. This is mainly due to lack of information continuity, data silos, lack of data portability, redundant

<sup>i</sup>**Digital health solutions:** Per Canada Health Infoway, "Digital health refers to the use of information technology/electronic communications tools, services, and processes to deliver health care services or facilitate better health" [7].

<sup>ii</sup> **Interoperability:** the ability of two or more information systems or components to exchange information and use it reliably and rapidly without error. This is a hallmark of any fully integrated health information system [8].

<sup>iii</sup> **Meaningful physician engagement:** the active and positive contribution of physicians within their normal working roles to maintain and enhance the performance of the organization, which itself recognizes this commitment by supporting and encouraging high-quality care [9].

layers of security, and an overabundance of information or features that are not always clinically relevant, leading to excessive and duplicative administrative work and fragmentation of care [1]. A 2022 Canada Health Infoway survey of Canadian physicians reveals “only 1 in 4 clinicians strongly agree that their current [electronic] patient documentation is integrated into their existing workflow and supports their clinical workflow” [2]. These challenges create additional work and can contribute to physician burnout, increased administrative work, reduced physician time spent on patient care, and ultimately reduced access to care [1]. On top of reduced access to care, digital health challenges such as lack of interoperability and integration can undermine patient safety when physicians and other health care providers have challenges accessing or being aware of relevant clinical information on their patients.

Doctors of BC has developed key principles to support the adoption and utilization of digital health solutions and ensure that they are beneficial to physicians, other health care providers, and patients.

## Analysis

***Digital health solutions should support information continuity and improved clinical workflows through interoperability and integration with existing solutions.*** This means digital health solutions should seamlessly communicate with one another – and each member of the care team should be able to easily access existing tools, resources, and patient data they require – without the need for duplicative data entry, faxing, excessive licenses and login credentials, or other burdensome workarounds. This includes ensuring that digital health solutions are backed by adequate technical infrastructure such as high-speed network access and sufficient hardware. Improvements in interoperability and integration should aim to address barriers to information continuity faced by community-based and facility-based physicians when accessing and sharing clinical information and data with one another.

***Digital health solutions should empower patients, support population health, and improve experiences of care for all users.*** Patient empowerment means patients have access to their health data and can carry this data between providers. This should include access to data stored in legacy systems such as paper records or outdated electronic records. While we must continue to attach patients to longitudinal primary care, patient access to their clinical data can help provide some continuity of care and enable greater coordination between different providers. Accessibility of patient data should be balanced with the reality that patients may not be equipped to interpret this data without the support of a physician or other qualified health care provider. The ongoing transition to digital health solutions should include support for patients and caregivers who have challenges with access to, and lack of comfort with, digital health solutions.

There is opportunity for the digital health sector to contribute to improving population health and reducing health inequities. Health inequities, including inadequate access to care or negative experiences when accessing care, have serious consequences for patients, as demonstrated by the 2020 *In Plain Sight* report on anti-Indigenous racism in healthcare [3]. Developing and implementing digital health solutions that narrow health equity gaps and support culturally safe and positive experiences of care is crucial. Therefore, an equity lens should be applied and marginalized groups should be involved when digital health solutions are developed to ensure they are accessible, culturally safe, and equitable [4].

***Digital health solutions should involve meaningful user engagement, including physician engagement, throughout the solutions’ life cycle.*** This includes physician engagement and leadership at all stages including planning, development, updates/upgrades, evaluation, and sunseting of digital health solutions. This should include engaging with the community or facility-based physician groups who will be directly affected (e.g., engaging the physicians at the site where a new EMR or clinical information

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system is being introduced). To facilitate effective team-based care, engagement must incorporate all end-users (e.g., MOAs, medical students, residents, nurses, etc.) of digital health solutions to ensure that improvements for some user groups do not undermine usability for others, and to avoid a one-size-fits-all approach.

Engagement with physicians should involve seeking their input on how new or existing digital health solutions add to or take away from the cumulative impact of demands on physicians [5]. Physicians should also have channels to raise potential patient safety issues caused by flawed digital health solutions without fear of reprisal [6]. Timely and meaningful engagement will help identify potential burdens and major concerns leading to more effective digital health implementation and increased trust.

***Digital health solutions should be supported by appropriate legislation, coordinated governance, and established standards that include protections for privacy and data security.*** Overcoming barriers to implementing and using digital health solutions, while maintaining robust privacy and data security protections, requires a coordinated approach to digital health governance and leadership where physicians, patient groups, and other health care providers are represented as equal stakeholders with government. Established national and international standards for vendors of digital health solutions exist that support interoperability and ease of information sharing, while enabling physicians to meet professional and legal obligations for access and documentation of patient data. Appropriate legislation, coordinated provincial governance, and leadership in the adoption of established standard gives vendors clear and familiar requirements, allows physicians to choose the best digital health tools for their practice, and would help ensure facility-based digital health solutions can meet basic standards. Standards and governance should also support reasonable patient autonomy and awareness over what data is shared and with whom.

***Digital health solutions should support continuous quality improvement and be subject to ongoing monitoring and evaluation.*** Health data collected and stored digitally is important to support system-level and physician-level quality improvement efforts. Digital health solutions, within appropriate privacy and security safeguards [6], can contribute to evaluation and improvement of health policy and public health interventions. Data from digital health solutions can also help physicians to inform and adapt their clinical practices to meet the needs of their patients and make their work easier and more efficient. However, caution and robust physician engagement is needed where there is an intention to use this data for the purpose of quality assurance. Quality assurance may involve using data – that does not always reflect the nuances of clinical practice or external factors (e.g., resources, staffing shortages, workload) – to potentially penalize physicians or create demands that can diminish their time and ability to provide direct patient care.

Quality improvement should also be applied to digital health solutions. There should be ongoing monitoring and evaluation of how digital health solutions are meeting intended outcomes. This includes meaningful opportunities for physicians, health care providers, patients, and other key user groups to provide input on their experiences with digital health solutions, and reviewing whether they are keeping up with clinically relevant and necessary improvements in technology. This requires flexible digital health solutions that can support ongoing innovation and accommodate necessary improvements.

***Digital health solutions should be cost-effective for the system and demonstrate value and utility for physicians and user groups.*** Cost-effectiveness does not equate to choosing the cheapest digital health solution. Rather, cost-effective digital health solutions are those that: can be sustainably financed over the long term, support necessary clinical workflows and functions, are usable by all physicians and providers in different clinical settings, and secured against potential system infiltration or other outages. Cost-effectiveness should also account for whether the digital health

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# POLICY STATEMENT

solution can function on a range of hardware/devices and network speeds, or if additional investments in technical infrastructure are needed.

Doctors, whether facility or community-based, need to know that making changes to their practice or spending significant time necessary to adopt digital health solutions will improve their experience of providing care, improve the efficiency of their practice, and maintain patient safety. Stable and adequate funding is needed to support both facility and community-based physicians with the change management costs associated with required software and hardware upgrades, changes in digital health solution standards, training and education, or adoption of new digital health solutions, including maintenance and upgrade costs.

## Conclusion

Digital health solutions are important to the delivery of care and the functioning of the health system. However, the potential of digital health solutions to improve health care in BC has not been fully realized. The principles in this statement represent opportunities for collaboration to better leverage the potential of digital health solutions to benefit patients, physicians, health care providers, and the health system as a whole.

## References

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## History

This statement replaces the previous 2017 Policy Statement: *Health Information Management and Technology Principles*

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