



**STATEMENT TO THE HOUSE OF ASSEMBLY
BY THE HONOURABLE KIM WILSON, JP, MP
MINISTER OF HEALTH**

**STRENGTHENING BERMUDA'S HEALTH SYSTEM:
NATIONAL DIGITAL HEALTH STRATEGY 2023**

8 December 2023

Mr. Speaker,

I rise today to share with this House and the public Bermuda's National Digital Health Strategy 2023. This 'North Star' document shows us the path to embrace integrating technology, people, and systems. It is a piece of work that is foundational to the government's commitment to strengthening Bermuda's health system and implementing universal health coverage.

As I recently stated in this House, Bermuda must build a stronger health system to ensure all residents can access affordable, essential healthcare services delivered effectively and efficiently. The aim is to improve patient experiences and health outcomes and, ultimately, reduce the economic burden of our health system. To do so, we need a digitally integrated and sustainable healthcare ecosystem.

Mr. Speaker,

Honourable Members will recall the Bermuda Health Strategy 2022-2027, published last year, which outlines actions to support the core vision of “healthy people in healthy communities”. It sets out eight strategic principles that are intended to set us on a new path towards an equitable, accessible, and sustainable health system for the Island.

These principles are:

- 1) promoting healthy living and preventative care,
- 2) focusing on person-centred care,
- 3) understanding our population’s health needs,
- 4) providing access to healthcare coverage,
- 5) strengthening our healthcare workforce,
- 6) harnessing healthcare technology,
- 7) partnership and collaborative working, and
- 8) preventing wasteful care and promoting efficiency.

Mr. Speaker,

Strategic Principle #6, **harnessing healthcare technology**, is key to improving access to, and delivery of, healthcare services. Indeed, the development of a National Digital Health Strategy was identified as a Throne Speech initiative in 2021, and I am pleased to outline its findings for the House today.

Mr Speaker,

For this exercise of developing a National Digital Health Strategy, the Ministry of Health set up an interdisciplinary working group of health and technology professionals from the public and private sectors.

The National Digital Health Strategy Working Group (“the Working Group”) initially posed several exploratory questions to itself.

Such as -

- What digital health goals will support the overarching goals of the broader healthcare system?
- What components need to be in place to achieve those goals?
- What are the needs of the diverse group of health system stakeholders related to digital health?
- What are the current enablers and barriers to implementing digital health in Bermuda?

These proved to be a good starting point for the work to come.

Mr Speaker,

In developing the Digital Health Strategy, the Working Group set as the vision:

“a sustainable and digitally integrated healthcare ecosystem designed to meet the diverse and often divergent needs of the community and health professionals, improve quality and safety, and drive better health for all.”

The Strategy's design principles centred on a culture of safety and quality. A culture of safety and quality is, in fact, the core principle. As such, the Strategy seeks to entrench quality and safety in the design, development, implementation, and use of digital solutions and services. The Government's recent experience with a cyber-attack demonstrates this core principle is spot on.

Mr Speaker,

The Digital Health Strategy defines 'digital health' as embracing -

“the integration of technology, people and systems to organise and deliver healthcare services and data effectively.”

Digital health is more than just technology. The goal is to bring efficiency to care delivery while at the same time improving access to affordable, quality care. People are at the centre of our planning.

In October 2022, the Working Group began with bi-weekly meetings to develop a common understanding of digital health concepts. This was followed by an information-gathering phase when workshops and surveys were conducted. The purpose was to assess the current state of digital health in Bermuda.

Mr Speaker,

As part of information-gathering about our digital health needs, a three-part consultation took place.

KPMG engaged community members and health sector stakeholders in two workshops of 22 participants and an online survey of more than 400 respondents. The result of the engagement was the report *Community Engagement for the National Digital Health Strategy*.

The University of Edinburgh conducted a literature review to assess Bermuda's current digital health maturity level. The overall assessment included interviews with more than 40 health stakeholders (primarily physicians) to capture perspectives and needs surrounding the current state of digital health. A web-based survey was also conducted and focused on the uses and needs of our existing health information infrastructure. The findings were reported in *Digital Health Maturity in Bermuda Current State Assessment*.

In addition to the work of KPMG and the University of Edinburgh, the Bermuda Omnibus Survey in April 2023 surveyed a representative sample of Bermuda residents. They were asked about digital tools and services that could be used to improve healthcare services to residents.

Efforts were augmented by a review of our provision of care, regulation and oversight, health system financing, population health profile, and technology already in the health space. Overall, the Working Group gained a valuable understanding and picture of digital health services and uses in Bermuda now.

Mr Speaker,

It is important to note there are benefits for Bermuda of going on this journey of innovation and transformation with our health system.

The benefits of embracing the integration of technology, people and systems include **improved healthcare delivery**. With technology, we can, for example, improve information sharing among healthcare providers with electronic health records and enable remote monitoring of a patient's health status. These can lead to better health outcomes, increased patient satisfaction, and more efficient healthcare services.

Mr Speaker,

Patient empowerment and engagement are benefits, too. Patient portals, mobile health applications, and other digital tools can provide patients with easier access to their health information, enable self-monitoring of health conditions, and aid communication with healthcare providers. This can lead to more patient engagement and more consistent treatment plan adherence.

Digital health solutions can also help **enhance public health management** as governments more effectively manage public health initiatives, such as disease surveillance, outbreak management, and vaccination programmes. By leveraging data analytics and digital tools, governments can collect, analyse, and share population health data in real-time, enabling early detection and response to public health threats. This can lead to more effective public health interventions, better resource allocation, and improved health outcomes for our population.

It is also possible to **increase healthcare efficiency and cost savings** – another benefit. Over time, digital health solutions can optimise processes, reduce administrative burdens, and lower healthcare costs.

For example, electronic health records can streamline documentation, reduce duplicate tests, and improve coordination among healthcare providers. This can lead to cost savings. Telemedicine and remote patient monitoring can reduce the need for in-person visits, saving time and resources. Access to timely, accurate, and complete data helps governments and healthcare providers identify cost-effective interventions and allocate resources effectively.

Mr Speaker,

It ought not be forgotten that digital health strategies can foster **innovation and economic growth** by promoting the development of a vibrant health technology ecosystem. Through research and development, innovation hubs and start-ups in the digital health space can drive technological advancements, create new jobs, and stimulate economic growth. It can also attract investment from domestic and international sources, possibly positioning Bermuda as a leader in digital health and driving its competitiveness in the global healthcare market.

Mr Speaker,

To put Bermuda on the road to realising the integration of technology, people, and systems to organise and deliver healthcare services and data effectively – that is, ‘digital health’ – the National Digital Health Strategy sets out four main components for the digital health ecosystem:

- i. infrastructure,
- ii. sources of data,

- iii. applications and tools, and,
- iv. strategic foundations.

The **infrastructure** comprises the critical elements necessary to receive, store and manage health data. These include:

- a *health data repository* to receive health data electronically from across the health system,
- *data security* to protect patients' health information from unauthorised access, use, or disclosure,
- an *enterprise master patient index* to manage and maintain unique identifiers,
- *access controls* to authenticate who connects to the system, and,
- a *reporting environment* which includes a data warehouse to audit data quality and organise data so that it can be used to generate reports and facilitate data-driving decisions.

Mr Speaker,

As noted in Digital Health Strategy, the **sources of data** are numerous. They include prescription information from pharmacies, lab and imaging results from diagnostic facilities, hospital and primary care records, disease registers, and health insurance coverage information. Integrating data from the many sources on and off island is one of the key benefits of digital health.

The **applications and tools** of most national digital health systems incorporate national patient records, patient portals, service provider portals, and national health reporting dashboards.

Patient portals allow residents to access their personal health information and set their privacy preferences. Provider portals allow health and care providers to access their patients' health information to help them make informed decisions.

Mr Speaker,

In terms of the **strategic foundations** for successfully implementing a national digital health system, this encompasses governance structures, planning and investment, legislation and regulations, standards to ensure interoperability, workforce skills and training, and monitoring and evaluation. It is important to remember that interoperability is key. It refers to the ability of different technology systems, applications, software, and devices to communicate and share data seamlessly.

Indeed, all these digital health ecosystem components must work together for Bermuda to achieve the potential benefits of digital health.

Mr Speaker,

As mentioned earlier, the Working Group assessed the current state of digital health in Bermuda.

The current state assessment revealed an openness to change and an enthusiasm for digitalisation by health stakeholders. However, concerns about the fragmentation of the island's health system and clinical care also surfaced, as well as its impact on costs, efficiency, safety, and quality of care. The potential lack of digital access by and for vulnerable populations rightly raised concerns about health equity.

Concerning governance, regulation and legislation, the current state of digital health, unfortunately, is one of gaps, conflicting policies, and a lack of clarity around roles, alongside concerns about privacy and security.

With respect to planning, financing and investment, the current state comprises numerous organisational level investments. These range from the Bermuda Hospital Board's major investment in Cerner Millenium to the electronic medical record systems of community service providers and the Department of Health, as well as claims processing systems of the insurers. There is currently no system-wide, national digital health financial plan or investment strategy.

There is also limited national digital health infrastructure and interoperability, and there are no national data standards. As a result, health information cannot follow patients as they move between care providers. This leads to waste, duplication, and an increased risk of harm. Applications and tools are also unconnected and disparate. Health service providers in Bermuda are currently using at least 27 different systems.

Finally, the current state assessment highlighted a shortage of people in the local workforce with the digital skills needed to integrate digital health solutions into clinical workflows – skills such as data management, coding, and health informatics. Linked to this is a lack of mechanisms and processes to monitor and evaluate digital health activity, progress, or efficacy within the health system generally.

Mr Speaker,

In addition to assessing the current state of digital health in Bermuda, the Working Group considered our future digital health needs and determined they fall into two categories: community needs and health system stakeholder needs.

The community needs focus on:

- a. community engagement (to ensure a clear understanding of the Digital Health Strategy and opportunities to remove ‘waste’ from the system to improve affordability),
- b. digital health technology (to achieve tools such as patient portals and remote monitoring),
- c. privacy and security (to ensure and assure data safety and control when it comes to the sharing of personal information),
- d. accessibility and equity (to access health information on a smartphone and to assist vulnerable groups), and,
- e. digital and health literacy (to access medical information in an easy-to-understand format and, with healthcare insights, to better understand conditions).

Mr Speaker,

With respect to health system stakeholder needs, the healthcare workforce includes many care providers and associated services. As such, the Working Group developed a list of health system stakeholder needs which is not complete at this point but which focuses on:

- a. clinical health and care information (to access the whole of the patient health record and to enter information accurately),
- b. hospital information (to access results from external labs and entire medication lists from pharmacies),
- c. public health information (to support public health surveillance and accurate public reporting),
- d. system-level information (to support national patient and provider identifiers for interoperability and sharing of data, and to measure the impact of healthcare interventions),
- e. insurance and eligibility information (to access clean and accurate claims data to understand actual costs), and,
- f. workforce training and development (to increase the capacity of technology, business intelligence and health informatics specialists).

Mr Speaker,

In reviewing the state of digital health now and for the future, the Working Group sought strategies that would both address concerns and challenges with the current state and position Bermuda for a future state that is digitally integrated and sustainable.

Therefore, National Digital Health Strategy outlines a best practice approach to ensure digital health can become a reality. It concludes with 15 primary recommendations and 31 secondary recommendations covering governance, national data standards, infrastructure, applications and tools, workforce development, community literacy and awareness, monitoring and evaluation, and planning and investment.

Mr Speaker,

For **governance**, for example, the Digital Health Strategy recommends establishing an interdisciplinary, independent body with authority to oversee the national digital health budget, execution, implementation, digital health policy, and ongoing monitoring and evaluation.

For **national data standards** to provide a foundation for system-wide interoperability and improved data quality, one recommendation is that Bermuda establish and implement national health data standards supported by international bodies and account for the different types of health data, including genomic data.

For **infrastructure**, the Strategy's primary recommendation is to build a national digital health platform to collect data from all health system stakeholders that allows for specific and secure access levels according to need and role.

To progress national digital health, there are four primary recommendations for **planning and investment**. These are: defining the budget for the lifetime of the National Digital Health Strategy; establishing multiple financing options to avoid dependence on one financing source; developing a change management-based implementation plan to assist with execution and multi-stakeholder engagement and communication; and, promoting digital health innovation and research in Bermuda by developing a well-regulated, interoperable national system – Bermuda as a regional innovation

sandbox for digital health is a long-term, aspirational goal once we have the foundations in place.

Mr Speaker,

A national approach to digital health can:

- leverage technology to enhance healthcare delivery,
- empower people to actively participate in their healthcare and improve their health outcomes,
- help to effectively manage public health initiatives,
- enable the optimisation of processes and the reduction in administrative burden, and,
- foster innovation and economic growth through a vibrant health technology environment.

This comprehensive National Digital Health Strategy seeks to integrate efficiencies and cost-effectiveness into the healthcare system, while addressing the current expense of our health system and the siloed nature of healthcare delivery in Bermuda. It is fundamental both to building a stronger health system and to delivering universal health coverage.

This will be a multi-phase plan and a multi-year effort.

Mr Speaker,

I would like to take this opportunity to thank the National Digital Health Strategy Working Group, chaired by Kirsten Beasley, for their diligence, hard work, unswerving focus, and commitment to producing a document that will serve as an excellent guide for Bermuda's digital health future.

Already, an interim governance committee is working on the next steps to define the technical requirements for a digital health platform infrastructure and develop a national digital health implementation plan (including governance structure, workforce planning, budget, and timeline).

Mr Speaker,

The National Digital Health Strategy provides Bermuda with a comprehensive roadmap for the transformation of our digital health system. It is available from today at www.healthstrategy.bm and I invite everyone to take advantage of the chance to glimpse Bermuda's digital health prospects.

The National Digital Health Strategy is progressive and points to a future where we will have an equitable, affordable, and sustainable health system for all Bermuda residents. We should seize the opportunities.

Thank you, **Mr Speaker.**