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An innovation strategy to guide creative thought and action in Eastern Health: A Living Lab



A Message from our President and Chief Executive Officer

The provision of health-care services requires a complex blend of concrete knowledge and innovative thinking on all levels. In health care, we must think critically and creatively to solve problems while also managing the dayto-day operations of programs and facilities and the delivery of quality care and comfort to our patients, clients, residents and their families. At Eastern Health, we work together every day to innovate, learn and create solutions to health-care challenges.

We believe that innovation comes from ideas that can have a meaningful impact on patient care, quality of life or processes related to the delivery of health care. These ideas can result in a broad range of solutions including new medical devices and emerging health technologies, as well as therapeutic approaches, health-care delivery practices, and practitioner/caregiver training and support or others that may enhance the care we provide.

This innovation strategy will guide us to formally operationalize innovation in Eastern Health. It will provide the structure necessary to support innovative thinking and the formation of innovation partnerships locally, nationally and globally. The strategy will help us further develop our identity as a Living Lab – or user-centred innovation space. As a Living Lab we will harness innovative solutions to improve life for our patients, our health system and our province.



"There is no shortage of innovative thinkers in this province and the time is right to enhance and formalize infrastructure that will support growth of the innovation sector in Newfoundland and Labrador and beyond."

David Diamond, President and CEO, Eastern Health

Sincerely,

David Diamond President and CEO

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Innovation at Eastern Health

Eastern Health continually strives to deliver high quality health-care services and programming to the people of Newfoundland and Labrador. However, in this fast-paced and ever-changing environment, we also face significant challenges. We have an aging population, as well as growing rates of chronic disease and associated risk factors. Further, the distances between communities makes access to services a major consideration when planning for and delivering health services in this region - all in the face of rising health-care costs.

We must find new ways to curb the growth of health-care spending and improve patient outcomes without compromising quality. As the largest health authority in Newfoundland and Labrador, we are uniquely positioned to harness innovation and to find creative solutions to these, and other challenges.

Definition of Health Innovation

Novel, high impact ideas, technologies and processes that drive the transformation of the health and well-being of our patients, our health system, the Newfoundland and Labrador economy and our nation. —Eastern Health

Eastern Health

As the largest regional health authority in the province of Newfoundland and Labrador, Eastern Health is responsible for the delivery of an array of health-care services and programs to approximately 300,000 residents.

This is possible with the aid of almost 13,000 diversely skilled and competent employees, over 700 caring physicians, 2,000 dedicated volunteers and almost 1,000 student placements.

At Eastern Health, we are guided by our values of respect, integrity, fairness, connectedness and excellence.

As a health authority we:

- promote health and well-being;
- provide supportive care;
- treat illness and injury; and
- advance knowledge.

The Government of Canada's Advisory Panel on Health Care Innovation defined health-care innovation as "those activities that generate value in terms of quality and safety of care, administrative efficiency, the patient experience, and patient outcomes"¹. Value is key to ensuring innovations have meaningful impact. Innovations must be considered worthwhile and important by those who will use them. Eastern Health has adopted a definition of innovation that incorporates the idea of value and a broader emphasis on economic growth and development.

Innovation Ecosystem

An **innovation ecosystem** refers to the network of stakeholder groups and experts that come together to support innovation. In Newfoundland and Labrador, this ecosystem includes the Government of Newfoundland and Labrador, all regional health authorities, the Newfoundland and Labrador Centre for Health Information, post-secondary training institutes, Atlantic Canada Opportunities Agency (ACOA) and other funding agencies, private enterprise, the technology sector and many others that support or may support innovation in health care now or in the future.

Eastern Health is well situated to be a health innovation leader in this province (see Figure 1). In essence, Eastern Health is a Living Lab. We are a user-centered space where public and private partnerships are actively forged to improve patient care. This includes our partnerships with our patients, our staff, our suppliers, the academic community and many, many others that wish to improve the health and well-being of people in this region.

We provide a full continuum of health and community services as well as a learning environment for numerous disciplines such as medicine, nursing, pharmacy, allied health and others. We have strong ties to the academic community and, in our everyday business operations, we have formed effective relationships with local, national and international business partners. We possess the physical infrastructure required for solution testing. We have a highly skilled workforce, and specialists in the delivery of health-care services that, by design, are also health-care solution creators and consumers. Further, our patients and their families, as users of the health-care system, often have unparalleled insight into what innovative solutions are needed and how they should be designed and delivered to better meet their needs. As innovators in the health-care system, our goal is to co-design solutions to

¹ Advisory Panel on Healthcare Innovation launches consultation and engagement activities: Guidelines for stakeholder input [Internet]. Ottawa: Health Canada; 2014 December 8 as cited in Unleashing Innovation: Excellent Health Care for Canada. Report of the Advisory Panel on Health Care Innovation, 2015.



improve health care and better serve our patients, clients and their family members. In order to accomplish this, we have developed an innovation strategy.

Figure 1: Eastern Health's Innovation Ecosystem

Government of Newfoundland and Labrador

Staff and Service Providers

Private Enterprise

Infrastructure and Assets

TCII, ACOA and other funding agencies or funders Eastern Health Innovation Ecosystem

> Patients, Clients, Residents and

Post-secondary

training Institutes

Families

Regional Health Authorities

Vision

Harness innovation to advance patient care and elevate Eastern Health as a leader in the Canadian health innovation sector.

The development of an innovation strategy represents the first step in our innovation journey. It articulates our vision and outlines our priorities as we chart our course in the innovation sphere.

Goals

The goals of Eastern Health's innovation strategy are:

- to advance health-care services and programs in Eastern Health through the application of innovative solutions;
- to maximize health systems efficiencies and minimize associated costs by leveraging the innovation ecosystem to build partnerships and generate revenue; and
- to generate economic development in the province.

Mission

Our **mission** is to create a supportive environment that fosters innovation so that we may meet the expectations of our stakeholders:

- current and future patients, who depend on Eastern Heath for care, expect access to the best quality of care possible, in a timely manner;
- the broader health system, including health-care providers and health-care organizations, expect leadership, support and open collaboration as we create a health system of the future;
- the residents of the province expect appropriate, accountable use of resources; and,
- partners, who team up with us to improve health-care technologies, expect open, timely collaboration and adoption of the most promising technologies.

Pillars of our Innovation Strategy

We need a strong foundation to bring our strategy to life. Therefore, our actions will be based on four main pillars:

- 1. Continued application of a value-based lens in decision-making
- 2. Establishment of a Health Innovation Acceleration Centre
- **3.** Cultivation of an innovation culture
- **4.** Building local, national and international partnerships across and within the innovation ecosystem

Continued Application of a Value-Based Lens in Decision-Making

What does value mean? It refers to the benefit realized by the consumer which, in this context, may mean the patient, client, family member, the care provider and/or the health system, compared to the cost. Value can be more than dollars and cents and at Eastern Health, we want value to also consider social impact. In assessing value, we will consider our organizational goals, our stakeholder expectations and the personal experiences of both our patients, clients, residents and their families, as well as our care providers.

We have begun to apply a value-based lens in decision-making processes by adopting a value-based procurement model which is underpinned by our Value-Based Procurement Policy. This model awards service contracts based on an agreed upon value proposition and requires qualified and interested suppliers to propose long-term, cost-effective, outcomes-based solutions in response to a health-care issue or challenge.

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We wish to move away from traditional methods of awarding service contracts to those with the lowest cost bids or quotes for service provisions to a new innovative method that embeds the concept of value in our day-to-day activities and our formal and informal decision-making processes.

We will continue to embed a value lens in our day-to-day activities and decision making by:

- developing and implementing policies and procedures that support value-based procurement and operations;
- educating our staff and partners on value-based change; and,
- forming long-term partnerships with local, national and international vendors that support value-based procurement.

Establishment of a Health Innovation Acceleration Centre

The Health Innovation Acceleration Centre will be a collaborative space where dynamic ideas are generated, and solutions tested and refined. Situated within the local innovation ecosystem, the Health Innovation Acceleration Centre will focus on the refinement and testing of technology enabled solutions to improve the health system. These innovative solutions will include well thought-out ideas anticipated to have meaningful impact on patient care and quality of life, the potential to impact the broader health-care systems and the potential to generate economic or commercial value and benefit through reduction of health-care costs and/or creation of new sources of revenue.

The Health Innovation Acceleration Centre will be guided by the following principles:

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Strategic Alignment and Prioritization

Innovative solutions align with Eastern Health's Strategic Plan. They must be relevant and address an identified need or challenge facing Eastern Health.



Discovery

The Health Innovation Acceleration Centre will focus on discovering new and innovative solutions and not the duplication of existing methods or approaches.

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Partnership

The Health Innovation Acceleration Centre will be a space to support local, national and international partnerships for the purpose of generating solutions to health-care challenges.



Agility

The Health Innovation Acceleration Centre will be adaptable and responsive to the needs of stakeholders. It will not be burdened with excessive and unnecessarily complex decision-making processes or procedures.

Realization

The Health Innovation Acceleration Centre will allow innovators to "fail fast" until a satisfactory solution to an identified need or challenge is designed for the benefit of Eastern Health's patients, clients, clinicians and staff.

The Health Innovation Acceleration Centre will make clear and publicly available all avenues for access to the Health Innovation Acceleration Centre and be transparent in decision-making processes. Eastern Health has established a Governance Committee comprised of Eastern Health executive members and other innovation ecosystem stakeholders to oversee innovation at Eastern Health. This Governance Committee will be responsible for identifying the Health Innovation Acceleration Centre priorities and will also be open to innovation ideas that may come from a variety of sources.

Additionally, a Health Innovation Business Advisory Committee (HIBAC) has been established that will advise the Governance Committee on current and emerging trends related to the development, commercialization and uptake of innovative technologies and practices. HIBAC is comprised of representation from Eastern Health senior leadership, members of the local innovation ecosystem, post-secondary institutions, clinical expertise and private industry.

Cultivation of an Innovation Culture

Innovation is exciting and thrives in a creative environment. We know that Newfoundlanders and Labradorians are creative people and we believe that our staff are key to helping us grow a culture of innovation from the inside out.

What is a culture of innovation? It is an organizational atmosphere that encourages all employees to be creative in their daily work and provides them with the opportunities to do so. It is about responsible experimentation and trying to solve problems in new ways while knowing when to self-correct as soon as reasonably possible.

Ideas can come from anywhere!

Patients, Clients, Family Members

External Companies

It is a shift in thinking so that instead of employees saying "this is not working", they are saying "this is how it will work better". In this environment employees will know that we will support well-reasoned and well-thought-out solutions to problems encountered in their daily work lives.

To support this, we will work towards modernizing policy to enable the growth of innovation within the organization. This will include adaptations to existing policies and developing new policies that clarify the rules of engagement around innovation. We believe that our people are our biggest asset and we understand that clear direction and transparency are essential to empower and liberate people to innovate. Policy will also play a role in providing structure to the big issues including return on investment, data management and intellectual property considerations.

We will continue to support ongoing activities such as the "Hacking Health" cafes and "Innovation Days". But, we will also:

- educate staff in all areas of the organization on what innovation means to us as an organization;
- embed mechanisms to support creative thinking and entrepreneurial disposition;
- provide innovation updates to staff and other stakeholders on an ongoing basis;
- embed processes within the Health Innovation Acceleration Centre to support the development of innovative ideas that emerge from our own staff; and,
- showcase a short-list of innovative work during our CEO awards of Excellence and other relevant events.

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Building Local, National and International Partnerships Across and Within the Innovation Ecosystem

Within our local ecosystem we have well-established relationships with suppliers and other business entities. We are enhancing these existing partnerships and forming additional partnerships on the international front so that we may find innovative solutions to health-care challenges. For instance, we have named 10 private companies as our strategic innovation partners and we are interacting with them in novel ways including value-based procurement and contracting that allows for mutually desirable outcomes and a focus on shared values. These partners include:

- BD
- Dell Technologies
- Deloitte
- GE Healthcare
- IBM
- IMP Solutions
- Medtronic
- MOBIA Technology Innovations
- Orion Health
- Vison33

We have hosted a number of innovation roundtables and summits that build on these partnerships. These events are a unique opportunity for networking and collaboration among our partners and other ecosystem stakeholders. As the innovation ecosystem matures, our value as innovation partners will continue to deepen.

We have also identified cyber security as a strategic area for development. Eastern Health has established a partnership with the Canada-Israel Industrial Research and Development Foundation (CIIRDF) to develop initiatives in cyber security in the health sector. This is a critical partnership as health-care technology and information systems evolve.

Finally, Eastern Health is committed to exploring future partnerships with small/medium enterprises and others in the start-up community. Having a diverse blend of partners that are cross-sectorial and differently sized will be instrumental in growing a robust ecosystem.

Summary

As a health authority in Newfoundland and Labrador, we want to provide the best possible care to our patients, clients and residents; however, we are challenged by growing health concerns and budgetary constraints. This requires us to think outside the box and to find creative solutions to improve patient outcomes and quality of care. An innovation strategy enables us to formally articulate a path to achieve our vision – one that positions us to harness innovation to improve patient care and to elevate Eastern Health as a leader in the Canadian health innovation sector.

This innovation strategy supports our organizational vision of **Healthy People, Healthy Communities** as the ultimate intent is to improve patient outcomes. While the full reach of this strategy is unknown, it is anticipated that it will be far and wide and that the resulting partnerships and innovations that emerge will help us reach our organizational goals in the areas of Access, Quality and Safety, Population Health, Healthy Workplace, and Sustainability, as outlined in our Strategic Plan.

Working together, we can achieve this vision for innovation within Eastern Health.

Appendix

BD

BD is one of the largest global medical technology companies in the world and is advancing the world of health by improving medical discovery, diagnostics and the delivery of care. The company develops innovative technology, services and solutions that help advance both clinical therapy for patients and clinical process for health care providers. BD has 65,000 employees and a presence in virtually every country around the world to address some of the most challenging global health issues. BD helps customers enhance outcomes, lower costs, increase efficiencies, improve safety and expand access to health care. www.bd.com

Dell Technologies

Dell Technologies helps make your digital transformation a reality - from the point of care to the data center to the cloud. From the



Deloitte

Deloitte is a global leader in Health Innovation. The firm has a strong regional, national and global health and life sciences

practice which can be leveraged for the latest innovations in technology, digital, strategy and human capital. Deloitte provides expertise in digital strategy, user experience design, creative and interface design, web/app development, digital platform implementation and application management support. The firm has completed significant health projects in Newfoundland and Labrador and knows the environment well. Deloitte lives and breathes innovation in their approach to finding business solutions that improve health outcomes.

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DCLTechnologies



GE Healthcare

GE Healthcare provides transformational medical technologies and services to meet the demand for increased access, enhanced quality and more affordable healthcare around the world. GE works on things that matter -great people and technologies taking on tough challenges. From medical imaging, digital infrastructure, data analytics, software & IT,

patient monitoring and diagnostics to drug discovery, biopharmaceutical manufacturing technologies and performance improvement solutions, GE Healthcare helps medical professionals deliver great healthcare to their patients."

IBM

For over a century, IBM has led the way with business and technology innovation. IBM in Canada has played an important role in the corporation's history, as one of IBM's first foreign

subsidiaries and the first to use the name International Business Machines and the initials IBM. Today, we make significant contributions to our nation's economy as one of the country's largest research and development investors and IT exporters. We are proud to be an Innovation partner within the (insert your preferred name for EH initiative here) and to contribute to the health and well-being of Newfoundlanders and Labradorians.

IMP Solutions

IMP Solutions is a leading information and communication technology (ICT) company delivering a full suite of product sales and professional services. Our team is backed by a well-established

leader in the Nova Scotia marketplace, IMP Group Limited. Headquartered in Halifax, Nova Scotia for over forty years, IMP Group continues to stand for diversity and strength. IMP Group has gained a very strong reputation nationally and has been honoured for six consecutive years with the prestigious award of one of the 50 Best Managed Companies in Canada. Award sponsors Deloitte, CIBC Commercial Banking, National Post, and Queen's School of Business selected IMP Group because "...they excel at developing winning products and services, thinking strategically, managing business risks and leveraging technology. The leaders of Canada's 50 Best understand how to create value for their employees and customers."

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Medtronic

Proud to celebrate 50 years in Canada in 2018, Medtronic Canada (<u>www.medtronic.ca</u>) is a subsidiary of Medtronic plc, which is the world's largest medical

technology, services, and solutions company – alleviating pain, restoring health, and extending life for millions of people around the world. The company is focused on collaborating with stakeholders around the world to take healthcare Further, Together.

MOBIA Technology Innovations

MOBIA is a Canadian headquartered software, systems integrator and technology firm with more than 30 years in the healthcare and service provides markets in Canada. The company employs approximately 350 professionals across

North America. Our Healthcare group provides Software Solutions that Improves Workflow, benefiting both healthcare providers and patients.

Orion Health

Orion Health is a leading population health management company and is one of the world's foremost providers of electronic health records (EHRs) and healthcare integration solutions to healthcare organizations. Worldwide, Orion Health solutions are used in 30 countries by more than

300,000 clinicians. In Canada, thousands of clinicians and hundreds of provider facilities and OEM partners rely on Orion Health to facilitate data exchange between hospitals, health systems and EHRs, resulting in improved care coordination, increased cost savings and efficiencies, and enhanced quality of care. More information can be found at <u>http://www.orionhealth.com</u>. Connect with us on <u>Twitter</u>, <u>Facebook</u> and <u>LinkedIn</u>.







Vision33

Vision33 Inc. is a global IT professional services consultancy headquartered and owned within Newfoundland and Labrador. Vision33 partners with large organizations in both the public and private sectors to und help them attain their technology goals with the right blend of strategy, consulting, and software solutions.



Vision33 has unmatched experience delivering solutions to support every core business function across all major industries. Vision33 employs over 450 results-driven people globally to provide world-class experience through our office locations across North America and Europe.

With over fifteen (15+) years of experience in the NL healthcare industry, Vision33 has actively led and participated in a significant number of healthcare initiatives. Whether working independently, as a Consortium partner, or providing individual resources as part of a multidisciplinary team, Vision33 has he knowledge, industry expertise, and skillsets required to deliver results. Our IT professionals have a history of enabling the healthcare industry to achieve their clinical, operational, and business goals.