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Department of Health
Government of New Brunswick

RE: NBHRF Comments on Striving for Dependable Public Health Care

The New Brunswick Health Research Foundation (NBHRF) was created in July 2008 with a vision to create a high performing health system, and a vibrant knowledge economy through supporting health research and innovation. In the next few pages, we will explain how the NBHRF's mandate supporting local health research will help the government *“build a safe, sustainable health-care system that is responsive to the needs of patients and communities now and into the future.”*¹

Innovation starts with research

In 2018, BC's Innovation Commissioner opened his inaugural report with, *“Innovation is the process that enables people to adapt, change and prepare for the future. It can help business thrive, sectors evolve and lead to higher standards of living. Innovation drives prosperity, competitiveness, and job creation and is the catalyst for improvement and change. From urban centers to rural communities, from researchers looking to secure new patents to entrepreneurs working to bring their products to market, innovation has been described as the manifestation of human potential and creativity.”*²

The root or start of innovation however is research – systematically trying new things, challenging old ways, testing new solutions. As was proven during the global COVID pandemic, research and innovation in health care is fundamental to our survival – as individuals and as a society.

Research and innovation are a continuum, from curiosity-inspired fundamental research to market-facing development and innovation. In all jurisdictions, governments support the early

¹ Striving for Dependable Public Health Care, A discussion paper on the future of health care in New Brunswick, February 2021

² Winter, A, Observations on Innovation in British Columbia, BC Innovation Commissioner's First Progress Report, October 2018

fundamental research in academic settings in order to build their capacity and develop local solutions. Private sector or commercial funding comes into play when market-facing content is involved. This continuum is an ecosystem where companies and publicly funded entities work together across the spectrum for innovative advances.

As much as research and innovation can occur anywhere in the world, local activities have an added advantage. In a 2015 study³, Zwicker and Emery concluded that health research “has payback in health outcomes, with *greater improvements in the province where the research occurs.*” In the health system, local research activities have a direct impact on local care.

Research brings value to health care

Last year, the New Brunswick Health Research Foundation (NBHRF) commissioned a robust assessment of the impact of health research in the province. This study quantified the NBHRF’s contribution to the economic benefits of the health research ‘enterprise’ in New Brunswick. In summary, it is estimated that every dollar invested by the government of New Brunswick in the NBHRF has resulted in a return of \$5 in health research funding. Moreover, the economic scale of the health research enterprise is approximately \$20 million annually. The majority (73%) of health research funding is allocated to supporting the jobs of some 416 new trainees and 204 predominately full-time professional research positions in colleges, universities and health care facilities in New Brunswick.

These researchers are fundamental to New Brunswick’s health care system. They are the teachers, caregivers and leaders that ensure New Brunswickers receive the standard of care expected. Moreover, they find local solutions to local problems to improve the productivity of care with our limited resources.

In New Brunswick, the health research ecosystem enhances the government’s ability to reach its objectives as outlined in the **Dependable Public Health Care** white paper.

Specifically, health research:

- Enhances the government’s ability to *optimize population health and wellbeing* by supporting such innovative advances including the development of a breath sampler to detect lung and breast cancer, the development of simulation training tools for nursing homes that use virtual reality to train employees in a safe environment, and the development of minimally invasive procedures to detect diseases more efficiently while allowing doctors to use medications more effectively.

³ Zwicker, J and Emery JCH, How Is Funding Medical Research Better for Patients? Valuing the Impact of Alberta’s Health Research, U Calgary School of Public Policy SPP Discussion Paper, August 21, 2015

- Enhances the government's ability to *provide quality, patient-centred care* by supporting the Maritime SPOR Support Unit (MSSU). The MSSU has been highlighted as a way to *improve addiction and mental health outcomes* by supporting such programs as [ACCESS Open Minds](#).
- *Improves the care and service experience of our seniors* through studying ways to optimize transitioning from hospital to home for frail adults, using virtual reality to improve the cognitive health of seniors and the development of a polypharmacy app to reduce harm from medications.
- *Provides innovative care using digital technologies* such as the development of devices that allow doctors to conduct remote patient monitoring.
- Provides funding to *maintain and invest in facilities, technology and equipment*.

In addition, some **real-world examples of research outcomes** in action include the use of experimental enhanced recovery techniques after surgery that have reduced hospital length of stay from 8 days to 3 days saving the Vitalité health system money and increasing care productivity. Also, when we look at mental health and productivity, the Health and Education Research Group of the University of New Brunswick tested and implemented a positive workplace framework in the New Brunswick school systems. The result showed significant decreases in teacher absenteeism and improvements in student academic performance compared to those sites not applying the framework. Research improved well-being and mental fitness.

New Brunswick has a base to build from and a future in research

Over the years, NBHRF has played a key role in helping to build our provincial capacity to be a material player in health research and bring value to our health system. In particular, New Brunswick has national and international level expertise to contribute to our future through our universities and health research centres including:

- Atlantic Cancer Research Institute
- New Brunswick Centre for Precision Medicine
- Stan Cassidy Centre for Rehabilitation
- Centre Formation Médicale du Nouveau Brunswick
- Dalhousie Medicine New Brunswick
- Horizon Health Network
- Vitalité Health Network
- New Brunswick Heart Centre
- Institute of Biomedical Engineering
- NB Institute for Research, Data and Training
- Centre for Food Research

Capturing the immediate value of health research is often most pronounced with clinical research. Unfortunately, most clinicians in New Brunswick do not have the capacity to conduct such research within our health system. To partially address this, the NBHRF introduced a Clinical Scholarship Program in 2014 for New Brunswick based clinician (including physician) researchers. This program provides the Regional Health Authority with salary replacement funds to enable them to provide release time to clinicians to engage in research activities.

A good example of the value of clinical research support can be seen in helping Vitalité to recruit medical specialists that would not have come here otherwise. Both Dr. Mouna Ben Amor (Medical geneticist, Montreal, QC) and Dr. Ludivine Witkowski (Neurologist, France) are clinician researchers, funded by the NBHRF through their Clinical Scholarships program. The recruitment of Dr. Ben Amor is allowing Vitalité Health Network to develop the first medical genetics service in our province.

The need for clinical scholarship support far exceeds the NBHRF's resources however. The demand for research time for clinicians remains high and is a priority if New Brunswick wishes to obtain its share of National health research funding. The health care system needs to seek a new way to support clinician researchers.

Progress or rather improving our health system will take work and is never-ending. We can always do better, do more. Bill Gates has said that "*innovation is the real driver of progress*" and that "*the way you get innovation is you fund research.*" On behalf of the New Brunswick health system, we encourage the government of New Brunswick to think of a "dependable public health care" system rooted in health research. Or stated another way, we propose a **vision where local health research continues to make a difference with new health practices, products, and policies.**

Best regards,



Peter Brenders
Chief Executive Officer