

# THE CENTRE FOR INTEGRATED HEALTH RESEARCH **AT UNB**





**At the University of New Brunswick (UNB), we recognize that social institutions have the capacity to entrench or dismantle structures of inequity such as ableism, ageism, colonialism, genderism and racism. UNB is committed to tackling society's great challenges head-on, creating positive change and contributing to the development of a more equitable and healthy society. This is our mission of service to our province and the world.**

UNB is home to 12 research units and groups focused on health care. On our Saint John campus, these research interests have intersected with the efforts of public, private and community partners to create a new national centre of excellence in health innovation.

UNB's Saint John campus is ideally situated to generate meaningful and impactful innovation in health care through collaborative models of education, research and entrepreneurship. Our co-located partners include Dalhousie Medicine New Brunswick's physician training and research facility, the Horizon Health Network's Saint John Regional Hospital, the New Brunswick Community College's Allied Health unit and a growing digital health industry ecosystem, Health and Technology District Saint John.

UNB's **Integrated Health Initiative** will build on these synergies to develop five health research clusters in Saint John under the aegis of a **Centre for Integrated Health Research**. The chairs will be created in the areas of **Aging in the Community, Digital Transformation of Health Care, Public Health and Health Policy, Management in Health** and **Child Rights for Child Health**.

Working in concert with UNB's co-located partners and existing research units, such as UNB's Centre for Research in Integrated Care, Social Pediatrics research cluster and Long-Term Care Simulation Lab, these new chairs will transform Saint John, New Brunswick into a nationally and globally significant centre of excellence in applied interdisciplinary health research.



The Chairs of UNB's Centre for Integrated Health Research will be guided by the values and principles expressed in our university's strategic plan, *UNB Toward 2030*.

At the University of New Brunswick, we turn ideas into action to improve the lives of people in our cities, our province and beyond. We are united by the knowledge that our work creates positive change. We see it around us every day as our teaching, research and partnerships transform communities, economies and lives.

We are a university of choice, where everyone belongs.

We mobilize the knowledge we acquire to transform communities.

We prepare our students to thrive and respond to the changing needs of the world.

We are engaged with others in solving the problems of today and tomorrow and commit to engage the communities we serve as we develop research projects.

We will harness the power of our research to drive innovation further, push society forward and create a more prosperous and equitable future for all.

The Chairs of UNB's Centre for Integrated Health Research will apply our university's problem-solving capability and commitment to equity in the biomedical sciences, social sciences, business administration and public policy to interdisciplinary research that addresses public needs.

Together, they will make Saint John a globally significant centre of excellence in integrated health through data-driven, person-focused, socially impactful health research and health system reform.

We are excited by the impact these Chairs will have on health research and innovation in our community, for the benefit of society. The future of Canadian health care begins here, at UNB, with Integrated Health Innovation.





## RESEARCH CHAIR IN AGING IN THE COMMUNITY

New Brunswick is home to one of Canada's most rapidly aging populations. It is poised for additional growth in this area through immigration, as the province becomes a destination for mature families and retirees. These converging trends have put our province at the front of a national demographic curve which finds its echo in the circumstances of many other nations.

How can we contribute to a society that treats all stages of life as equally valuable, enabling individuals to enjoy the process of aging? How do we increase intergenerational connectivity, so that the experience of the aged can be shared with families and communities? How can we change the perception that aging is a cost to society rather than a source of value?

These are questions that UNB's Chair in Aging in the Community must address. UNB's Saint John campus offers researchers a unique opportunity to do so.

UNB researchers are the direct beneficiaries of productive relationships between the academy, the health sector, policy makers and community partners that have taken decades to establish. Their work is grounded in an understanding of the social context of health and wellness. They benefit from our

university's growing ability to leverage technology to collect data in the community and have access to a rich trove of anonymized data. The potential for cross-institutional appointments with Dalhousie Medicine New Brunswick and Horizon Health Network are additional drawing cards for talented researchers who want to lead change.

Armed with a holistic, interdisciplinary approach, UNB's Chair in Aging in the Community will be ideally positioned to propose strategies that facilitate the growth of sustainable, intergenerational communities in which the process of aging is valued and the experience of the aged is shared and leveraged for the enrichment of succeeding generations.

### AGING IN THE COMMUNITY

Aging is a lifelong process that includes youth, family forming, empty nesting, independent and interdependent living, as well as infirmity and senescence. The Chair's focus on wellness and conditions at the community level that support wellness throughout the aging process will create new avenues for partnership with public, private and community stakeholders.



The mandate of the Chair will be to approach aging as a series of transitions across the continuum of social life; to research qualities, concepts, processes and structures that contribute to the development of age-friendly communities and improved quality of life throughout the aging process; to examine impediments to the growth of healthy intergenerational communities that exist in New Brunswick including poverty, lack of affordable housing and limited public transportation; and to propose policy initiatives with the capacity to improve quality of life for people of all ages, while taking a long view regarding adaptability to national and global needs.

## OUR RESEARCH ECOSYSTEM

The Chair in Aging in the Community will complement the work of UNB's Canada Research Chair in Healthy Aging in UNB Fredericton's Department of Political Science. These chairs will function as a bi-campus team looking at the impact of aging in relation to health, human potential and community quality of life. Other potential collaborative partners include UNB Saint John's proposed chairs in Child Rights for Child Health, Digital Transformation of Health Care, Public Health and Health Policy and Management in Health, plus the Jarislowsky Chair in Interprofessional Patient-Centred Care in Saint John and UNB's Canada Research Chair in Resilient Communities. UNB's investment in these areas is designed to create a new provincial research ecosystem focused on health system sustainability and community wellness.

UNB has several compelling advantages, including its proximity to Horizon Health Network, Dalhousie Medicine New Brunswick and Health and Technology District Saint John and the potential for cross-institutional appointments; access to New Brunswick Institute for Research, Data and Training and the largest pool of anonymized data in Eastern Canada; access to the Canadian Institute for Cybersecurity; partnerships with the Department of Health to evaluate innovative policy and care models; and faculty research projects including UNB Saint John's Centre for Research in Integrated Care, Long-Term Care Simulation Lab, and Urban and Community Studies Institute.

## CONDUCT RESEARCH WITH IMPACT

The Chair will have the capacity to engage new partners in the private, public and community health sectors; gather and assess new streams of data; propose new models, including virtual models, engage in high-level conversations with policy makers; and lead public conversations. These conversations may include what policy frameworks communities need to support age-diverse populations on a sustainable basis as well as how to change perceptions of aging and how to leverage the expertise of this growing cohort for the betterment of the community.

Potential research topics for the Chair may include, but are not limited to:

How to frame the social, psychological and economic value of inclusive, intergenerational communities as a counterpoint to metrics that focus purely on cost;

How to facilitate inclusive, intergenerational communities through urban design and community priorities such as affordable housing, public transportation and zoning;

What we can learn about aging in the community from different cultural perspectives, including Indigenous and newcomer perspectives and the experiences of communities elsewhere;

How to avoid social isolation in an era of tech-enabled communication and virtual care;

How to provide effective long-term care, including home care, in urban and rural settings;

How to address labour force issues in home care and long-term care including education, recruitment, professionalization, retention and career planning; and

How to provide services equitably on a regional and national basis – for example, by linking population age to the equalization formula for calculating federal health care transfers.



## CHAIR IN THE DIGITAL TRANSFORMATION OF HEALTH CARE

With the co-location of Lark Group's Health and Technology District Saint John at UNB, our university has a unique opportunity to support the development of technology-based health services, products, businesses and non-profit enterprises. This three-way academic, public and private partnership will make Saint John Canada's East Coast hub for new business development in digital health.

We see an opportunity to create a national-class research chair focused on the development of digital tools that are accessible, inclusive, effective, ethical and cost efficient.

The global COVID-19 pandemic has sped up the adoption of digital health technologies by several years. As the development of digital health tech accelerates, gaps are emerging in adoption, effectiveness and equity. Access to digital technology, health data security, digital literacy and health literacy in a digital environment are emerging as new social determinants of health outcomes here in Canada and around the globe.

We believe UNB can make the greatest difference here in New Brunswick, across Canada and around the world by bringing a social development lens to the creation of new health technologies. Applying this social lens to technology at the point of development will ensure that digital health products and services designed in New Brunswick will be more effective and more marketable, and that the businesses created here will contribute to achieving the United Nations' Sustainable Development Goals.

The Chair will contribute to the development of interdisciplinary, collaborative, cross-campus research initiatives with a focus on applying digital technology to resolve challenges in health care for local, regional, national and global markets.

The Chair's technological research will inform and be informed by complementary research conducted by UNB's Chairs in Child Rights for Child Health, Public Health and Health Policy, Aging in the Community and Management in Health.

## MAKE A UNIQUE CONTRIBUTION

UNB's Chair in the Digital Transformation of Health Care will be unique in Canada. It will build upon the core strengths of UNB and its partners, connecting existing centres of research excellence on both campuses and convening new public conversations on the transformative impact of digital technology in health care.

The Chair will have the capacity to connect partners in:

- Digital technology (the Health and Technology District Saint John, Opportunities New Brunswick, The McKenna Institute, N.B. Institute for Research, Data and Training, Institute of Biomedical Engineering and Canadian Institute for Cybersecurity);
- Entrepreneurial development (the J Herbert Smith Centre for Technology Management & Entrepreneurship, Pond Deshpande Centre, and Health and Technology District Saint John);
- Applied social research and social innovation (the Urban and Community Studies Institute, NouLab, Canada Research Chair in Resilient Communities, GlobalChild, Department of Social Development and the planned Health and Social Innovation Centre); and
- Medical care (Dalhousie Medicine New Brunswick, Department of Health, Horizon Health Network, Dr. Shelley Doucet's Centre for Research in Integrated Care, Dr. Sarah Gander's N.B. Social Pediatrics Research Program and Dr. Rose McCloskey's Long-Term Care Simulation Lab).

It is anticipated that the Chair will form ongoing and evolving relationships with these and other public, private and community stakeholders. Cross-institutional appointments with one or more community partners are possible.

## LEAD THE PUBLIC CONVERSATION

The Chair in the Digital Transformation of Health Care will be a cornerstone element in the development of five collaborative research clusters at UNB's Centre for Integrated Health Research in Saint John.

The ideal candidate will have a strong record in digital innovation and collaborative enterprise and will be guided by a commitment to the principles of equity and sustainability in public health care.

## CONDUCT RESEARCH WITH IMPACT

The Chair in the Digital Transformation of Health Care will drive the development of a new digital health products and services sector in New Brunswick through UNB, Saint John campus's innovation ecosystem and its synergies with the Lark Group's Health and Technology District Saint John.

The Chair will initiate a push-pull dynamic with partners in the public and private sectors. As the Chair conducts innovative research, they will drive critical thinking and knowledge into the private and public sectors. On the basis of this research strength, UNB's Chair in the Digital Transformation of Health Care will become Canada's go-to source for answers to questions regarding how digital tools and services can be made ethical and more effective, while reaching more segments of the population.

The Chair will help establish Saint John as the centre for digital health service development in Eastern Canada, and UNB as a centre of excellence in applied health research with local, regional, national and global impact.

# RESEARCH CHAIR IN PUBLIC HEALTH AND HEALTH POLICY

The University of New Brunswick's Research Chair in Public Health and Health Policy will embed an awareness of health outcomes in all public policy and be a champion for the idea that economic prosperity and thriving communities are dependent upon the health and wellness of the people who inhabit them.

New Brunswick communities are beset with health crises that have little to do with the clinical delivery of health care, though they have a profound impact upon the health of individuals, the prosperity of the community and the allocation of resources. These crises include malnutrition, substance use disorder, high levels of chronic diseases such as diabetes and obesity, and high prevalence of acute diseases related to reduced socioeconomic status.

The pursuit of better public health requires researchers who are equipped to investigate the determinants of health on many levels, from the physical environment to community demographics, economics, and social and cultural factors. The second part of this equation is converting research into innovative and effective public policy that addresses community health issues. This is because the goal of public health is to improve community wellbeing, a concept which encompasses the physical, mental and emotional health of community members as well as their social condition.

The Chair in Public Health and Health Policy will lead an interdisciplinary research group in addressing health crises at the community level through research that connects wellbeing with the development of health policy. The Chair will make a meaningful contribution to the wellbeing of the communities we serve and provide public health models for other communities to follow.

## UNB'S UNIQUE ADVANTAGE

The UNB Saint John campus is uniquely situated to make an impact on public health and health policy in New Brunswick. It is co-located with Horizon Health Network, Dalhousie Medicine New Brunswick, New Brunswick Community College's

Allied Health program, and the Health and Technology District Saint John knowledge park. Cross-institutional appointments with community partners are possible.

The Chair in Public Health and Health Policy at UNB will benefit from unparalleled access to the New Brunswick Institute for Research, Data and Training and the largest pool of anonymized data in Eastern Canada; existing partnerships with the Department of Health to evaluate innovative policy and medical care models; and the multi-faculty interest on campus in developing an interdisciplinary master's program in public policy with streams in areas where UNB has expertise and where there are demonstrable public needs.

This Chair will form the locus of a new research cluster that complements existing expertise at UNB and its public, private and community partners and will lead the development of evidence-informed, community-focused health policy. Whatever the Chair's field of study may be, bringing a trauma-informed lens to the social determinants of health will be of primary importance to the development of effective policy.

## CONDUCT RESEARCH WITH IMPACT

The Chair in Public Health and Health Policy at UNB will have the capacity to work with partners in the health sector; gather and assess new streams of data; engage in high-level conversations with policy makers; collaborate on research projects with UNB's chairs in Child Rights for Child Health, Digital Transformation of Health Care, Aging in the Community and Management in Health; and build a research cluster that connects to a master's in public policy program and students who will become the torch bearers of policy innovation.

The Chair's interdisciplinary team will conduct research that addresses policy issues of local and regional concern while proposing solutions of national and international interest. This research will have a direct impact on New Brunswick society in areas such as:





**Environment and community health**, including the built environment and how community planning affects community wellbeing;

**Poverty and community health**, including the impact of literacy, employment and affordable housing on health and the efficacy of measures intended to break the cycle of poverty;

**Addictions and community health**, including identifying best practices for treating and reducing the negative consequences of substance use disorder;

**Diversity and community health**, including exploring the intersection between linguistic, spiritual and cultural traditions and health; assessing the impact of sexism, racism and classism; learning from diverse models of wellness and care; and delivering services on an equitable basis to all Canadians, including newcomers and Indigenous peoples.

## **LOCAL RESEARCH YIELDS GLOBAL VALUE**

What does the data tell us about the impact of public policies upon community health? How can we learn from cultural communities in New Brunswick, and what policies or policy approaches can we adapt from them to the benefit of all? What do Atlantic Canadians have to teach the world about healthy living, and what can we learn from other jurisdictions?

There is an opportunity for this Chair to link local and regional phenomena to national and international issues by applying a social innovation lens and awareness of the global context.

By embedding an awareness of health outcomes in all public policy and championing the idea that economic prosperity and thriving communities are dependent upon the health and wellness of the people who inhabit them, the Chair will establish UNB as a national and global leader in the development of effective, equitable public health policy.



## RESEARCH CHAIR IN MANAGEMENT IN HEALTH

Reliable access to primary care. Rapid ambulance response times. Dependable hospital staffing levels to ensure ERs, ICUs and other critically important units remain open. Timely access to diagnostic procedures and effective medical treatment. The ability to give birth in a safe and supportive environment. The ability to live well, at home, for longer with appropriate medical and social supports. The ability to die with dignity in a dedicated palliative care facility.

Ensuring that these desirable outcomes can be met by our public health care system today, tomorrow and in the future will require skilled management unlike any provided in the past. It will require managers who are educated in a collaborative, interdisciplinary environment, who prize innovation and who have the creative capacity to revision and reorganize our health care system for greater patient impact and long-term sustainability.

UNB's Research Chair in Management in Health offers an unparalleled opportunity to develop outcomes-based approaches to management in health that can be applied successfully across Canada and around the globe. Working with public, private and community partners, the Chair will lead an interdisciplinary research group

in assessing and addressing New Brunswick's health needs. The Chair will apply proven management models from other sectors and lead the development of innovative new management models and new streams of managerial education that support the leaders and implementers of health care reform.

### UNB IS HERE

Revolutionizing management of people, practices and outcomes in the health care sector is a key part of UNB's Integrated Health Initiative. The Chair in Management in Health at UNB will have the skills and the support to shape best practices in this rapidly evolving field.

UNB's Saint John campus is superbly equipped to deliver sector-leading research in management in health. Our one-year Master of Business Administration program has been ranked among the top 10 MBA programs in the country, and Business Review Canada named UNB Saint John the top business school in Atlantic Canada. Our stellar reputation in management will ensure top candidates are attracted to this prestigious research appointment.

The work of the Chair will be informed and supported by UNB's partnerships with Horizon Health Network, Dalhousie Medicine New Brunswick and Health and Technology District Saint John, all of which are co-located on our Saint John campus. Cross-institutional appointments with these partners are possible. The Chair will have access to the New Brunswick Institute for Research, Data and Training and the largest pool of anonymized data relating to health in Eastern Canada. The Chair also will have the capacity to impact the public health system directly through UNB's ongoing research and innovation partnerships with New Brunswick's Department of Health.

## **WE'RE EDUCATING CHANGE MANAGERS**

Canada needs transformative administrators to drive institutional reform, foster integration among health services and disciplines and lead collaboratively in challenging times.

UNB is mobilizing to meet this need by providing a new type of health education that fuses the strengths of science, management and the humanities into an effective and responsible new approach – an integrated approach, built on teamwork and interprofessional collaboration. This is the core of the Integrated Health Initiative.

Interdisciplinary and collaborative management is a signature element of health education at UNB Saint John, from our Bachelor of Health degree program through our soon-to-be-launched Master of Business Administration concentration in management in health.

The Chair in Management in Health will augment the transformative power of these educational programs by generating research with a direct impact on how managers are educated to work in the health sector and how health services and facilities are managed. In the process, the Chair will create unique opportunities for graduate students and mid-career professionals to play a hands-on role in research and policy development with regional, national and global reach.

The presence of this new Chair will offer researchers and students life-altering opportunities to set a trajectory for change in the public health care system, help clinicians improve patient outcomes and influence the sustainability of universal health care in Canada.

## **CONDUCT RESEARCH WITH IMPACT**

UNB's Chair in Management in Health will assemble a research team of high-quality personnel focused on defining the managerial skillsets required to lead effective, efficient and sustainable health services in an interdisciplinary, collaborative and digitally enabled environment.

The Chair will lead public and professional conversations about how the public health care system is serving under-represented groups and how all communities can be engaged in the reform of management in health education.

The Chair will inform the development of UNB Saint John's management in health MBA program and see that change management strategies are piloted and implemented through UNB's partnerships in the public, private and community sectors. In turn, MBA students will support the research of the Chair, creating a unique research cluster linked to applied professional education that will attract ambitious health care reformers to New Brunswick.

Potential areas of investigation for the Chair and affiliated researchers include examining best practices around the world for fostering innovation within a universal health care system; developing effective strategies to meet the human resources needs of Canada's health care system; improving the efficiency of supply chain management; co-ordinating services to improve the management of patient information and health outcomes; and developing new ways to evolve the public health care system to meet emerging demands, including trends associated with climate, environmental and demographic changes.





## CHAIR IN CHILD RIGHTS FOR CHILD HEALTH

UNB recently appointed a senior research associate whose world-class work in child rights monitoring provides a great foundation for our long-term program objective, which is to establish a research Chair in Child Rights for Child Health.

Dr. Ziba Vaghri is known internationally as the first researcher to combine these two fields – the study of child rights and the study of childhood development – through a single unified approach. Dr. Vaghri's unique skillset has enabled her to develop GlobalChild, a tool that will enable provinces, nations and other jurisdictions to track information on child rights compliance and assess whether public services for children are contributing to good health. Dr. Vaghri's New Brunswick pilot of GlobalChild is being supported and monitored by the United Nations with the intention of deploying it worldwide.

As Chair in Child Rights for Child Health, Dr. Vaghri will bridge and expand upon two areas of research excellence at UNB – leadership in population data research and evidence-informed health policy development – for the sake of giving children a better start in life. Through her pilot of GlobalChild, Dr. Vaghri will collect and track the data New Brunswickers need to assess child health and ensure that public services contribute to good health and equality of opportunity.

The research conducted by this prestigious Chair will place UNB at the centre of a global conversation and contribute to the harmonization of child rights data monitoring practices worldwide.

## BUILD GLOBAL PARTNERSHIPS

individuals, their potential for personal health and happiness, and the economic capacity and prosperity of communities. The United Nations Convention on the Rights of the Child was created to emphasize the importance of giving every child equal access to health, education and opportunity.

While 196 member states, including Canada, have ratified the Convention, many jurisdictions are struggling with collecting and tracking data on child health and assessing how well children's needs are being met by public services. This is where UNB's Chair in Child Rights for Child Health comes in.

Dr. Vaghri has already started a conversation with key players in child rights including the New Brunswick Child and Youth Advocate; the provincial departments of Health, Social Development, and Education and Early Childhood Development; child health and development research units at UNB such as New Brunswick Social Pediatrics and the Center for Research in Integrated Care; the New Brunswick Institute for Research, Data, and Training; the Canadian Institute for CyberSecurity; Dalhousie Medicine New Brunswick; the Horizon Health Network; and many NGOs, seeking their collaboration in the New Brunswick pilot of GlobalChild. Her research is informed by partnerships with professors and chairs around the world.

As Chair, Dr. Vaghri will form ongoing and evolving relationships with these and other public, private and community stakeholders as she creates a new research cluster at UNB.

## CONDUCT RESEARCH WITH IMPACT

UNB's Chair in Child Rights for Child Health exemplifies the "think global, act local" approach to child health and development at our university. The holder of this prestigious research appointment will build upon the strong reputation that UNB has earned in evidence-informed policy development by initiating research projects with provincial scope, national impact and international application.

Dr. Vaghri's pilot of GlobalChild will inventory New Brunswick's capacity to support child rights, identify gaps, and assist politicians and policy makers in evidence-informed decision making. Her goal is to help foster sustainable development through the adoption of data-driven, child-friendly policies and programs that enable children to reach their full potential.

Through Dr. Vaghri's research, New Brunswick will be the first jurisdiction worldwide to gather long-term data on its commitments and achievements in the protection of children's rights. The actions taken based on this data will foster equitable child development and benefit economic productivity for decades to come.

By transforming how health and social services align with the developmental needs of children in New Brunswick, this research chair has the potential to transform New Brunswick's economic capacity, the efficiency of its public services and the social well-being of its communities.

This Chair will establish to the world that UNB is conducting interdisciplinary research in child health with global significance and the potential to improve the lives of billions.



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