

# INQ-McGill Chair in Northern Research: Respiratory Health & Health Services

## Chaire de recherche INQ-McGill sur l'optimisation des services en santé respiratoire



### Annual Report: 2023-2024



Centre universitaire  
de santé McGill  
Institut de recherche



McGill University  
Health Centre  
Research Institute



## Northern Research Chair in Respiratory Health & Health Services Annual Report 2023-2024

### OVERVIEW

Chairholder: Faiz Ahmad Khan

Dr. Ahmad Khan is a clinician-scientist and Associate Professor in the Department of Medicine at McGill University. He is a Scientist at the Research Institute of the McGill University Health Centre (MUHC) and a respirologist in the Respiratory Division of MUHC in Montreal, where he also directs the tuberculosis (TB) clinic. The MUHC serves the population of Nunavik when they require out-of-region medical services. Since 2013, Dr. Ahmad Khan has provided clinical services in Nunavik and advises the Nunavik Regional Board of Health & Social Services on TB policy. In June 2022, he was appointed the McGill-INQ Chair in Northern Research.



A view in Puvirnituq. Photo courtesy: C.É. Burdet

Dr. Ahmad Khan's work in Nunavik addresses the medical care challenges faced by Nunavimmiut and the structural barriers to effective respiratory care in the healthcare system. His research program, shaped by these insights, focuses on Nunavimmiut patient and community priorities and is grounded in partnerships with Inuit health leadership. The program supports the reclamation of rights, identities, lands, and autonomy by Indigenous peoples in Canada and Quebec.

The research team has been given the name of *Puvallunirmut Tukisigiarvik*,

which in Inuktitut invokes notions of learning and understanding related to lungs and also to tuberculosis.

### **Puvaqatsianirmut — The Committee for Healthy Lungs**

Puvaqatsianirmut a committee comprised of Nunavik Inuit, governs and oversees the Chair's Inuit health focused research program. The committee members represent Nunavik's three coasts. Research teams seek guidance from Puvaqatsianirmut at all research levels: hiring, participant recruitment, ethical issues, research methods, and data analysis, reporting, management, and ownership.

### **Objectives**

The Chair concentrates on two core objectives:

1) enhance the capacity and effectiveness of Nunavik's health and housing services to strengthen

and protect lung health by studying novel, evidence-based, multidisciplinary interventions that address biomedical and social determinants of lung health;

2) partner with the Indigenous health research community, and Nunavik health authorities, organizations and community representatives, to develop a common approach for the design and execution of studies that will simultaneously facilitate undertaking health research while ensuring rigour in ethical study conduct, and Nunavimmiut-partnering and co-ownership of research. These consolidated objectives inform the research program outlined below.

### **Key Collaborators**

The research is undertaken through co-construction approaches. The following key collaborators co-lead or provide critical support in the research activities the Chair is engaged in.

#### *Glenda Sandy, RN, MSc, Nurse Advisor, Nunavik Regional Board of Health & Social Services*



Glenda Sandy, is a Naskapi Cree nurse from the Naskapi Community Kawawachikamach, QC and a member of the Pimicikamak Cree Nation of Cross Lake, Manitoba. She obtained her Nursing Diploma from St. Lawrence College-Kingston, Bachelor of Nursing Science from Queen's University and Master's in Community Health from Université Laval with her Final paper entitled, Naskapi Miyupimaatisiun, which was an exploration of the Naskapi meaning of health and well-being. Throughout her 20+ year career she has worked primarily for her home community of Kawawachikamach in various functions such as: Expanded Role Nurse, Health and Social Service Program manager and Community Health Nurse. She has always been drawn to areas where the focus is on the promotion and integration of Indigenous health and cultural safety. Currently she is a Nurse Advisor in Infectious Diseases with the Nunavik Regional Board of Health and Social Service's (NRBHSS) public health department. More specifically she is leading the development of a Public Health Officer program in Nunavik, a program that aims to provide training and support for local community members and integrate Inuit Knowledge and Values into the Public Health setting.

#### *Larry Watt, B.A., Executive Director, Ungava Tullatavik Health Centre*



Larry Watt is an experienced person serving northern populations living above the 55th parallel for more than 30 years. Executive Director of the Ungava Tulattavik Health Center and former Director of Out of Region Services Department and Director of Nunavik Regional Health Board, he contributes to ensure the health and social well-being of Nunavik people for 15 years now.

Man of wisdom, devoted to fellow citizens, Larry Watt fulfilled important occupations to represent Inuit inhabitants: mayor of Kuujjuaq, manager of Makivvik Corporation, members of local and regional Board of Administration, and author. Larry Watt's philosophy of life is an example for his children, family, and members of the communities.

*Natasha MacDonald, PhD(c), Assistant Professor & Academic Director - Special Advisor on Inuit Qaujimatuangit in the Office of Indigenous Initiatives, McGill University*



Natasha Ita MacDonald is an Inuk, originally from Nunavik, and is an Assistant Professor in the Department of Integrated Studies in Education at McGill University. There she contributes to the academic landscape with a keen focus on decolonizing systems and advancing intercultural communication in Inuit education and health. Nearing completion of her PhD at Concordia University, Natasha is deeply engaged in research at the intersection of education and Inuit knowledge, employing Indigenous research methodologies to explore innovative approaches to pedagogy. Her work underscores the

importance of culturally responsive practices in education and healthcare systems.

*Haidee Smith Lefebvre, PhD, Research Associate, Research Institute of the McGill University Health Centre*



Haidee Smith Lefebvre, a mixed-race American Chinese originally from San Francisco, contributes to the Chair's program by conducting fieldwork, engaging with Nunavimmiut communities, providing training on ethical research practices with Inuit populations, and mentoring emerging researchers. Her interdisciplinary expertise bridges academic research with on-the-ground community work in Nunavik. With over 12 years of experience in academic and professional research settings, she is skilled in project management, curriculum development and academic writing. Haidee's commitment to reconciliation is evident in her academic and community work. She has published on topics such as media

representation of Indigenous artists, sexual violence, and multicultural education. As a member of various equity and diversity initiatives, she has facilitated workshops, tutored students, and served on McGill's Joint Board-Senate Subcommittee on Equity for First Peoples, demonstrating her dedication to fostering respectful and inclusive relationships.

### **Research Program Updates – April 1, 2023-March 31, 2024**

The core research program consists of interdisciplinary projects that share common themes of working with partners in Nunavik to identify and/or eliminate lung health outcome gaps and working to strengthen related health services.

#### *Tuberculosis-related work*

A number of projects are underway to support efforts to reduce the burden of tuberculosis in Nunavik.

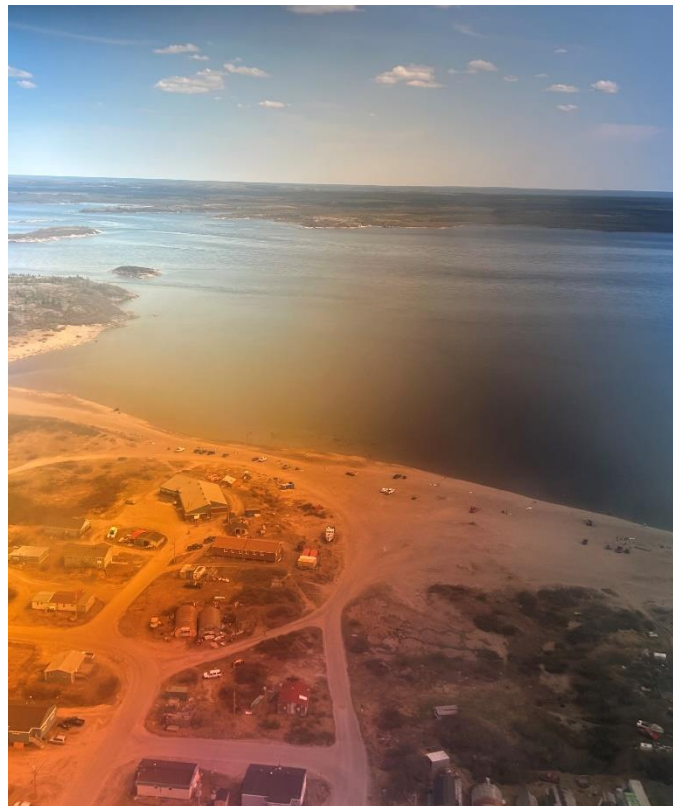
First, a research team co-led by Glenda Sandy is supporting efforts by the NRBHSS to co-construct roles and training for Nunavimmiut community members to participate in the provision of TB care services in Nunavik. This CIHR-funded work has seen a team of Inuit and First Nations researchers— Daphne Tooktoo, Sophie Tukalak, Natasha MacDonald, & Ben Geboe— travel to five communities, interviewing 160 Nunavimmiut, about tuberculosis and health services. Concurrently, post-doctoral fellow Stephanie Law interviewed 20 healthcare providers for their perspectives on tuberculosis care in Nunavik. Prioritizing sharing of results to

Nunavimmiut communities and leaders, our team presented results to a gathering of Nunavik mayors in November 2023 organized by the NRBHSS and chaired by Qiallak Nappaaluk Qumaaluk. Notably, the interview results were presented by Nunavimmiut researchers in Inuktitut to the audience of Nunavik mayors and were well-received. The results are being used to inform the lay health worker program and have also provided insights into how tuberculosis services can be reshaped to ease the burden on patients and communities. Research assistant Anna Dunn-Suen has been leading the team's work to develop a training manual for the public health officers, integrating study findings about patient and community needs. The work also informed the development of a research proposal co-led by Natasha MacDonald, Glenda Sandy & Faiz Ahmad Khan, with the support of the NRBHSS, Larry Watt, Qiallak Nappaaluk Qumaaluk, and mayors Maggie Emduluk Sr. and Maggie E. Saviakjuk, submitted to CIHR in the Spring 2024 competition.

Other tuberculosis-focused work has been led by PhD student Coralie Geric. Coralie has been working with Nunavik's health centres and the McGill University Health Centre labs and information systems to create a clinical-radiological database to evaluate the role of artificial intelligence-based software for analyzing radiographs for tuberculosis. In a distinct project, Coralie has been working with the Nunavik Public Health Department to use regional data to create a tuberculosis transmission model specific to Nunavik. Both projects are supported through CIHR funding.

#### *General Respiratory Healthcare related work*

This year saw the publication of our study evaluating lung cancer treatment outcomes of Nunavik residents. Over the past year, the research team working closely with Nunavik organizations and community partners published a study in the [Canadian Medical Association Journal](#) (impact factor 17.4) identifying significant disparities in survival following lung cancer diagnosis between residents of Nunavik and those of Montreal treated at the same health centre. Community-partnered analyses pointed to inequities in broader health services as likely causes. The results generated substantial media interest calling to attention the paucity of health services that persists in Nunavik. The work has led to increased referrals for lung cancer screening, as well as the development of work to determine how many Nunavimmiut might benefit from lung cancer screening.



The project *Resilient Responses to Protect Lung Health in Nunavik* ([CINUK funding program](#)) is a three-faceted study in response to community interests and the needs of the health and housing authority to address challenges to lung health that are likely to be exacerbated due to climate change. Nunavik-based organization partners include the Nunavik Housing Bureau, Ungava Tulattavik Health Centre, and Inuulitsivik health centre. In conceiving the project, the Chair brought together a multidisciplinary and international team of experts to assess mould and building/construction level predictors of mould in the housing stock, respiratory health, and microbiology. This year, the healthcare services focused portion of the project saw Research Associate Haidee Smith Lefebvre and Research Assistant Sophie Tukulak visiting Puvirnituaq. They organized a sushi night welcoming families to the family house to discuss lung health and the project. They met with patients affected by breathing conditions and family members in the hospital, enrolling them to the on-going study. Dr Else Bijker, a specialist in pediatric infectious diseases from Oxford University visited Kuujjuaq and Kangiqsualujjuaq in Fall 2023, meeting with healthcare workers and administrators to better understand the role and potential of e-health technologies in respiratory health. In related work, the Chair is liaising with Nunavik Housing Bureau to establish a pathway between the health and housing services that can more easily facilitate communication and assessment when housing-related health issues are identified amongst patients.

#### *Educational initiatives*

Within the Faculty of Medicine and Health Sciences at McGill University, the Chair lectured in various courses on the topic of tuberculosis within Nunavik. Together with Natasha MacDonald, a novel lecture was developed for medical students that discussed tuberculosis in Nunavik within a framework integrating reconciliation, cultural safety, historical and present day sociopolitical issues, with epidemiology and biomedicine.

### **Research Team & Trainees**

#### Team co-lead on Community Healthworkers for TB Care & Prevention

*Glenda Sandy*

#### Research staff

*Daphne Tooktoo*

Inuk from Kuujjuarapik, has been working as a Community-Research Liaison at the RI-MUHC. Daphne's recent educational achievements include completing her BA at Concordia University and a Nunavut-based Inuktitut language course. She brings invaluable lived experience and a passion for improving health services for Nunavimmiut to her work. She has co-led community consultations while building her research skills through our work.

*Sophie Tukulak*

Inspired and encouraged by her post-secondary teachers to pursue in researching, Sophie Tukulak has been involved in various research projects that have focused on Inuit health and services since 2018. Currently working with her 4th research team, Miss Tukulak has contributed many hours interviewing, collecting, and analyzing data of Inuit voices. Wanting to help create a better future for her fellow Nunavimmiut, Miss Tukulak plans to continue working on Research Projects in order to see changes that are culturally adapted in southern health services.

## Post-doctoral trainees

[Ben Geboe](#)

[Stephanie Law](#)

## Graduate students

*Aklil Noza – Masters of Science in Public Health Summer Student*

*Marianne Saroufim — Masters in Public*

*Laurence Robert — Medical Student*

*Coralie Geric — PhD*

## Undergraduate Students

*Pasa Mangiok*

Pasa is a mixed-race Inuk and Atikamekw, born in Montreal but originating from Ijujivik, Nunavik. In 2021, she moved to Montreal to attend the post-secondary program Nunavik Sivunitsavut. Pasa then proceeded to complete the Visual Arts program at Dawson College. For the next 4-5 years, she will pursue her education at Concordia University, where she will be taking studio art courses to further her skills and knowledge. Her goal is to obtain as many artistic skills as possible, to teach younger Inuit artists, inspire and mentor them with the skills she has learned, and to expand what Inuit art can be.



Pasa has been working as a freelance artist for the last 5 years, where she was involved with projects such as [Grilled Cheese Magazine](#) and [Laissez-nous-recontrer](#). She also researched and wrote an [article about the history of printmaking for the Inuit Art foundation](#), and participated in the [Standing Together Through Art online exhibition](#). Currently Pasa contributes to the Chair's team by lightening her coworkers' workload while helping with

administrative tasks.

## Research staff

*Anna Dunn-Suen*

Anna is a Junior Research Assistant at the RIMUHC. Currently, she is working on developing tools and educational materials to support Nunavimmiut who will provide tuberculosis-related services. Her interests include TB care in Nunavik, and decolonizing and trauma-informed practices. Anna has worked as a teacher and public health assistant in Nunavik and as a coach-coordinator with Nunavik Volleyball, a sport-based psychosocial intervention program. Anna is a former athlete with the Canadian Beach Volleyball National Team and the Dalhousie Women's Varsity Volleyball Team. Anna holds an M.Sc in Global Health from McMaster University and a B.Sc in Microbiology from Dalhousie University.

*Haidee Smith Lefebvre*

See Key Collaborators section.

## Partners

### *Nunavik Regional Board of Health & Social Services*

- Research projects outlined above
- Member of TB Scientific Committee, providing tuberculosis-related medical and public health expertise to inform clinical and public health policies in Nunavik

### *Ungava Tulattavik Health Centre & Inuulitsivik Health Centres*

- Research projects outlined above
- Guidance on clinical pathways to improve respiratory health care

### *Nunavik Housing Bureau (formerly known as Kativik Municipal Housing Bureau)*

- Research projects outlined above
- Capacity building on human health-related research ethics

### *Oxford University, University College London, National Research Council of Canada, University of Laval*

- [CINUK](#) research project



## INQ Valeur ajouté

The Chair brings a unique focus on research related to clinical care to the INQ. McGill University is responsible for providing out-of-region services to residents of Nunavik. The Chair is leveraging this unique positioning of McGill University to support research as a means of improving clinical experiences and outcomes, with a focus on respiratory health and tuberculosis. By undertaking research through community-partnered approaches, and focusing on health services, the Chair contributes to the INQ Vision of bridging “scientific knowledge with that of local communities, including Indigenous knowledge,” seeking to support healthcare system strengthening through locally-led adaptations.



## Diffusion des connaissances & knowledge exchange – April 1, 2023- March 31, 2024

- Work on identifying disparities in lung cancer outcomes
  - Nunavimmi puvakkut kaggutimik aanniaqarniq: Qanuilirqitaa? Lung cancer in Nunavik: How are we doing? A retrospective matched cohort study, *Canadian Medical Association Journal*
  - [Radio Canada](#)
  - [La Presse](#)
  - [CBC](#)
  - [Medscape Medical News](#)
- Research results dissemination prioritizing communities and partners
  - Results presented to Executive Directors and Chair of Board of Directors of NRBHSS, Ungava Tulattavik Health Centre, Inuulitsivik Health Centre (November 2023, Kuujjuaq)
  - Results presented to mayors of Nunavik (November 2023, Montreal) — Inuktitut language presentation by research team members
  - Results presented to nursing leadership of Ungava Tulattavik Health Centre and Inuulitsivik Health Centres (March 2024, Teams)
- Development of training manual for community health workers for tuberculosis (Public Health Officer programme)
- Co-creation of lecture for medical students, “Tuberculosis in Nunavik” with Natasha MacDonald & Madeline Yaaka
- Training on research ethics for Nunavik Housing Bureau, February 2024, led by Haidee Smith Lefebvre & Sophie Tukalak (Kuujjuaq)
- Lunch & learn talk on cultural safety & health research for Nunavik Housing Bureau, Kuujjuaq, co-organized with Patrice St-Amour (NHB, Director of Communications)
- Tuberculosis in Nunavik – guest lecture in course, Inuit Health, Dept of Family Medicine, McGill University, February 2024
- Participation in INQ Forum : L'impact des changements climatiques sur les écosystèmes et la recherche autochtone, Chicoutimi, October 2023
- Pediatric tuberculosis management — Dr. Else Bijker, Oxford University via CINUK research grant. Presented in Kuujjuaq with livestreaming across Nunavik, Sept 1, 2023
- **McGill Medical Students – Physician Case Studies on Indigenous health** (Montreal, in person) — June 2023. Introducing medical students to concepts of cultural safety in health care and the importance of understanding impacts of prior and on-going colonialism, and of critical self-reflection and humility, in the context of respiratory healthcare provision in Nunavik.\*
- **Presentation to Nunavik Health Surveys Committee** (Kuujjuaq, virtual attendance) — April 2023. Two research projects were discussed to solicit feedback and support from this committee that oversees use of *Qanuilirpitaa 2017* data for research.\*
- **Ungava Tulattavik Health Centre Board of Directors Meeting** (Kuujjuaq, in person)— April 2023. The Chair and team members presented research studies, soliciting guidance, feedback and support from Inuit health leadership.\*

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\* In 2022-2023 report as well due to delays in Chair start date.

- **Salluit Community Radio Call-in show on Tuberculosis** (Salluit, in person) — April 2023. The Chair went on the community radio with local clinicians and Elder Eva Quananack to answer questions from the community about tuberculosis.\*
- **Meeting with Wellness Committee, Mayor, clinicians & Puvallunirmut Tukisigiavik team members in Salluit** (in person)— April 2023. Intervention and research planning and discussions.\*
- **Presentation on Tuberculosis for Nunavik Clinicians** (Kuuujuaq with livestreaming across Nunavik) — May 2023.\*
- **Meeting with the President of the Collège des Médecins du Québec** (Kuuujuaq, in person) — May 2023. The Chair met with Dr. Maurice Gaudrault during the latter’s visit to Nunavik, during which the Chair provided insights into intersections between respiratory medical practice and health research in Nunavik.\*
- **Meeting with Larry Watt, Executive Director of the Ungava Tulattavik Health Centre, & Nathalie Boulanger, Director of Professional Services of the Ungava Tulattavik Health Centre** (Kuuujuaq, in person) — May 2023. Planning of research activities on lung health services.\*
- **Nunavik TB Scientific Committee** (attended from Kuuujuaq) — May 2023. Participation as clinical and research advisor, with Puvallunirmut Tukisigiavik team member Sophie Tukalak.\*
- **Organization and moderation of presentation on Childhood Tuberculosis by pediatric TB specialist Else Bijke of Oxford University** (Kuuujuaq with livestreaming across Nunavik)— June 2023.\*

### **Informations financiers**

See attached statements.

Peer-reviewed funding from

- Canadian Institutes of Health Research
- Fonds de recherche du Québec – Santé
- Fonds de recherche du Québec – Nature et technologie
- Institut Nordique du Québec
- National Research Council of Canada

### **Equity Diversity & Inclusion**

The projects and research approach increase the presence of Inuit community and health authority representation in the design and conduct of research. Equity and sovereignty-seeking groups are well-represented on the research team and amongst the trainees. First Nations and Inuit team members and co-investigators are central to the work pursued.