

Introduction: Nursing Education in the Circumpolar North

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Of the many challenges we collectively face in improving the governance and development of the Circumpolar North, the solution, at its root, is almost universal: capacity-building and education. But if the solution is simple, it is far from easy. Many factors—including geography, remoteness, cost, capacity, will, and cultural differences—have conspired to make the delivery of high-quality education at the primary, secondary, and tertiary levels difficult in northern communities. New technologies offer the promise of expanding our abilities in this regard, yet distance learning methods remain a means, not an end, to providing a good education, and Internet connectivity challenges continue to frustrate efforts.

Amidst the opaqueness and uncertainty of how to move forward, it has been a relief for me in the past few years to find a policy problem with a solution for which there is widespread consensus on its desirability and value, and a clear path to achieving it: providing accessible education for northern nursing students.

Nurses form the bedrock of the modern health care system; this is particularly true in northern and remote communities, where they are often the only health care provider who is permanently resident. In addition, nurses often perform the bulk of northern primary and community health care, a critical and cost-effective service with direct impacts on health and well-being. But there have been perpetual challenges to recruiting sufficient and qualified numbers of nurses to northern communities; turnover is high, recruitment costs are expensive, burnout is frequent, and the majority of nurses—as much as 97%—are imported from the south (Exner-Pirot & Butler, 2015, p. 45), often on a short-term or rotational basis.

The obvious solution to the challenge of providing a stable and competent nursing workforce for the North, and thereby with high likelihood to improve overall health indicators, is to educate northerners as nurses. Indeed, there is a large amount of literature that supports the premise that educating health workers in rural areas improves rural retention (e.g., Strasser & Neusy, 2010; Walker et al., 2012; Larson, Playford, & Wheatland, 2010). In addition, local nurses, perhaps particularly those of Indigenous descent, have been shown to provide more culturally competent and acceptable care to their clients—for example, by providing services in local languages or by improving the continuity of care. This can also help increase the uptake and effectiveness of primary health care services (e.g., Cantor et al., 1996; Saha et al., 1999; Laveist & Nuru-Jeter, 2002).

But while the Circumpolar North has a decades-long history of teaching university-level programming in rural and remote areas, a nursing education offers particular challenges. Whereas social sciences, humanities, and education degrees are largely didactic and lecture-based, nursing education requires hundreds of hours of laboratory and clinical practice as well as small group clinical placements in appropriate facilities supervised by qualified instructors. This makes a nursing program more expensive, and often more challenging, to deliver in smaller communities. In addition, the academic preparation required to enter and complete a nursing program, with its increasingly heavy science and math requirements, can be difficult to obtain in the remote North.

Despite these difficulties, there have been about a dozen nursing programs established in the Circumpolar North in the past twenty-five years, beginning with the decentralized nursing education program at UiT in Tromsø, Norway in 1990, and the more recent distributed learning nursing program launched in northern Saskatchewan in 2012. Most of these programs have a particular mandate to address rural and remote nursing recruitment challenges. In April 2015 representatives from nursing programs in northern Saskatchewan, northern Manitoba, Northwest Territories, Nunavut, Lapland, Tromsø/Finnmark, and Yakutia gathered in Reykjavik, Iceland to discuss the value and potential of establishing a northern nursing network to share best practices and promote distributed and decentralized nursing education in the Circumpolar North. Two months later, the University of the Arctic officially approved the group as a Thematic Network on Northern Nursing Education. Since then, the Network has welcomed additional members from Greenland, Luleå in Sweden, northern British Columbia, and Akureyri, Iceland (see Figure 1).



Figure 1. Location of members of the UArctic Thematic Network on Northern Nursing Education (Source: Mark Tomtene, University of Saskatchewan)

This *Northern Review* special collection is a result of the collaboration of network members and our attempt to comprehensively describe and assess the nature and practice of accessible nursing education in the Circumpolar North.

Lessons Learned for Northern Education

What lessons can be learned by evaluating the delivery of nursing programs in the Circumpolar North? You can be excused for asking the question; nursing as a profession provokes very strong connotations and associations that are rarely framed from a social scientific point of view. But the reports presented here are important case studies in the quest to figure out how to deliver high-quality education in the North that can lead practically and explicitly to highly skilled professions that are in great demand. How can we better prepare students academically, particularly in science and math proficiency, in the rural and remote Circumpolar North? How can we deliver university degrees leading to professional designations in the Circumpolar North? And how can we incorporate local and traditional knowledges and cultures into mainstream, professional

programs? These are fundamental questions as community leaders and policy-makers seek to move the Arctic and Subarctic regions into the knowledge economy. The programs outlined in this special collection offer the best collective examination of the processes, challenges, and pathways towards accomplishing these goals.

Northern Nursing Education in Perspective

This compendium includes ten reports outlining baccalaureate level nursing programs, delivered in all corners of the Circumpolar North, that have unique but often analogous challenges and contexts.

Mari Wolff Skaalvik and Bente Norbye outline the quantifiable success they have achieved in developing a rural nursing workforce for northern Norway in their article, “A Decentralized Nursing Education.” Established in 1990, over 430 nursing students have completed their education in the program, including at three rural locations: Nord-Troms, Bardufoss, and Finnsnes. The success of the model—a part-time program extended from three to four years, with a blended (on-site and distance education) learning approach, and strong local stakeholder ties—is evident in the impressive outcomes of the program. Almost all, or 97%, of students complete the course in the stipulated amount of time, higher than for “full-time” students at the main campus in Tromsø; exam results are roughly equivalent between on campus and decentralized sites; and, best of all, 85% of past graduates work in the designated rural regions. The Norwegian experience demonstrates that decentralized/distance programming does not have to be sub-standard, and that flexible delivery can produce the desired outcomes of building and maintaining a professional workforce for rural, northern communities.

Outi Hyry-Honka, Eija Jumisko, and Sirkka Saranki-Rantakokko, from the Lapland University of Applied Sciences in northern Finland, evaluate the particular approach of mentoring as a strategy to promote distance learning success in their article “Off-Campus Nurse Education Supported by On-site Mentoring.” They have launched an initiative in which twelve students from four communities will complete their nursing education largely off-campus, as a means to address the aging and declining rural health workforce. Their circumstances require flexible options to attract, educate, and retain nurses, which have included new admission requirements, year round programming, and career laddering for mature students who have already entered the workforce. Part of this innovative and outcomes-oriented approach is the “pedagogization” of

work: the process in which the skills necessary for a degree are obtained by working. This approach requires a significant amount of coordination and communication between the student, the educator, and the workplace. Mentorship has been identified, and is being implemented, as a pedagogical solution to the need for high standards in student supervision and guidance, as well as to provide a practical and constructive learning environment. The authors provide a qualitative assessment of mentor and manager perceptions and experiences with the initiative, which validate the chosen model and approach.

Summarizing the University of Saskatchewan's extension of their nursing program to two small communities in northern Saskatchewan, Lorna Butler, Carol Bullin, Jill Bally, Mark Tomtene, and Emmy Neuls describe what they call a "Learn Where You Live" philosophy to provide accessible, quality undergraduate nursing education irrespective of geography. The approach adopts a learner-centred model: assuming a "distributed" model, where all locations are equal and distinctive constituents, rather than conceived as "distance," "off-campus," and peripheral. The approach relies on new technologies to support delivery, including an innovative application of Remote Presence (RP) technology—a mobile, robotic communications platform that enables local access to remote health and educational professionals at facilities where it is deployed. Traditionally used in clinical situations, the technology allows for a more interactive and immersive experience than video conferencing alone. The use of this technology has allowed for a more cost-effective and accessible delivery of nursing programming in rural and remote areas than would be permitted using traditional face-to-face methods. Subsequent evaluation has demonstrated its efficacy in actual student outcomes, with a 93% Indigenous student enrolment proportion, and a 98% retention rate at their northern sites in 2015.

Lela Zimmer, Davina Banner, and Martha MacLeod, from the University of Northern British Columbia (UNBC), explore the important relationship between education and research in "Nursing Scholarship In and For the Northern Canadian Context." Sometimes in northern education there is a push to focus on the practical; but the authors make an important and eloquent defense of the need for strong theoretical and intellectual underpinnings for northern nursing education and practice. This does not necessarily translate into the abstract: UNBC's School of Nursing has established important partnerships with the local health authorities and communities, and their research serves to address real

challenges in population health and health human resources. A strong emphasis is placed on knowledge generation and its translation into practice and organizational change. Their action research approach has led, for example, to the development and implementation of a Rural Nursing Certificate Program (RNCP).

Pertice Moffitt examines the evolution towards decolonized pedagogy and epistemology of the nursing program in the Northwest Territories, in “Mobilizing Decolonized Nursing Education at Aurora College: Historical and Current Considerations.” Aurora College adopted an Indigenous Education Protocol in 2016, which outlines principles and commitments towards implementing Indigenous intellectual and cultural traditions, and establishing Indigenous-centred services and learning environments. Indeed, the nursing program has long made efforts to decolonize their curriculum and incorporate Indigenous concepts and practices into their program. But, as Moffitt explains, there are still many questions about how this can be concretely accomplished. As one example of the difficulties in implementation, Aurora College does not collect statistics on the ethnic identity of its students; all are considered northerners. The rationale is to avoid categorizing and segregating students. But Moffitt asks how the college can evaluate its progress towards attracting and retaining Indigenous students with this policy, and if not identifying students’ background is in itself a type of assimilatory behaviour.

Nancy Edgecombe and Anita Robertson outline the longstanding Arctic Nursing program, delivered collaboratively between Dalhousie University and Nunavut Arctic College (NAC), in “The Nunavut Nursing Program: A Retrospective Reflection.” Established in 2000, the program has graduated forty-eight nurses to date, seventeen of whom are of Inuit descent. The health care needs and characteristics of the territory of Nunavut are unique and challenging, defined in particular by the remoteness of its communities and the prominence of Inuit culture and language.

As with many of the other case studies, the Arctic Nursing students often lack sufficient preparation in science and math, due to a lack of access to high school courses in these subjects in many Nunavut high schools. As a result, NAC has variously offered a preparatory nursing access year and, more recently, a pre-nursing program over two semesters. However, the program also benefits from the strong sense of community and communal support, principles that translate into the nursing’s art and science of caring for others. The report aptly describes the positive outcomes, but also the

challenges of trying to deliver a mainstream nursing program, leading to professional certification, within the very unique cultural context that exists in Nunavut. Barriers to student success have been addressed and re-evaluated continuously over the course of sixteen years, and while success is slow it is being achieved.

In her article “Cultural Competency and Safety in Nursing Education: A Case Study,” Vicki Zeran, from northern Manitoba’s University College of the North, describes her program’s efforts to introduce and integrate concepts of cultural safety into the curriculum and the institutional philosophy. With a student body that is 54% Indigenous, student success and well-being is heavily tied to feeling comfortable and accepted as Indigenous students. There is also a heavy emphasis on ensuring faculty are well aware and informed about Indigenous values and healing practices. That said, tensions persist with the Western and scientific paradigms that are predominant in nursing curriculum. But a strong understanding of the need for nurses, educators, and other health care providers to act in culturally and socially competent ways is posited, to ensure the local nursing workforce becomes more diverse, and to reduce and ultimately eliminate health disparities.

Sue Starks, Catherine Bradbury, Kerry Lynn Durnford, and Pertice Moffitt discuss a particular initiative to create an educational module for professionals in the public health workforce across the three Canadian territories—Nunavut, Northwest Territories, Yukon—in “Nurse Educators Collaborate in a Pan-Territorial Approach to Develop a Community Development Learning Opportunity.” The Canadian territories struggle to cope with the challenge of economies of scale, a common problem across the Circumpolar North. To proactively address this, they have formally co-operated with one another over two decades on a number of pan-territorial activities, from climate change adaptation to literacy. Facing the same need to provide education and awareness on community development approaches to their primarily non-Indigenous public health workforce, a group of nurse educators from the three territorial colleges, together with public health practitioners and government representatives, developed a self-directed, online learning module.

Although the logic of a collaborative approach was validated, it did bring about additional challenges. The unique contexts of not only the public health workers, but also their clients, made the development of a tool universal across diverse audiences and geographies difficult; and meetings between initiative collaborators were expensive, ultimately

hosted in Calgary, Alberta as a cost-saving measure. While the outcomes were ultimately narrowed, the project did prove successful in bringing needed education to an important portion of the territorial health workforce.

In a more practically oriented contribution, Suzanne Møller provides an overview of “Nursing Education in Greenland” at *Ilisimatusarfik*, the University of Greenland. Since the program began in 1994, the proportion of Greenlandic-educated nurses has gone up considerably, from thirty when the program began, to the current 140 of a total 325 nurses. The recruitment of qualified instructors, especially for anatomy, physiology, and microbiology, has been a significant challenge, and much of the curriculum is delivered in Danish. But, overall, the program has achieved its primary goal of educating local nurses, with ten to eleven students graduating every year.

Capping off the collection is a summary from Nikolay Dyachkovsky and his colleagues at Russia’s North-Eastern Federal University (NEFU), A.G. Karpova, N.A. Protasova, B.A. Chemezova and I.L. Savvina—*New Perspectives in Nursing Education: The Role of Nurses in Health Promotion of Indigenous People of the Arctic Region, The Case of the Republic of Sakha (Yakutia)*. As a fitting finale to this special collection, the authors outline the value and importance of international collaboration to develop new scientific and methodological approaches to improving the health care of northern and Indigenous inhabitants, including the development of local workforces. In particular, they outline the fruitful collaboration that NEFU’s Medical Institute and the University of Saskatchewan’s College of Nursing have enjoyed over the past five years. This has included research partnerships, the transfer of telehealth technologies and innovative uses, and shared learning opportunities, sometimes at a distance, for both undergraduate students and practising nurses in matters of particular relevance for a circumpolar context.

Concluding Thoughts

This *Northern Review* special collection highlights the often overlooked importance of nurses and nursing in the health and well-being of communities. But these reports are about much more than that. While policy-makers continue to struggle with the problem of developing a skilled and local workforce for circumpolar communities, many of the challenges and solutions that could inform policies to address that goal have already been tried in northern nursing education—sometimes

successfully, and other times not, but with lessons to be learned and applied to other contexts.

There are many efforts to develop the capacity of northerners to be professionals and leaders in their own institutions, be it the nurses in health clinics and hospitals, teachers in schools, or engineers and accountants in businesses. The stakes are high and the needs are urgent. The history and experience of northern nursing educators has much to teach us about the best pathways forward; this collection seeks to communicate these lessons across multiple disciplines and geographies.

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Guest Editor

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