Perspectives of primary care providers on the topic of medevac communication and rural practice in Northwest Territories and Nunavut

A Report on Survey Findings

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Executive Summary

A survey was conducted in 2016 to examine the perspectives of health care personnel who worked in either the Northwest Territories or Nunavut (or both) regarding clinical support, medical evacuation procedures, scope of practice, and primary health care services. The survey was distributed to 1132 registered nurses via the RNANTNU, 131 Nunavut physicians via Medical Affairs. NWT physicians were not invited to participate because they were surveyed in 2015. A total of 284 medical personnel answered 25 questions (both likert scale questions and open-ended responses) between February and April 2016.

Key Points

- Overall, respondents were generally satisfied with their specific roles and duties, but raised a need for a definition of a scope of practice that can be applied across the Northern regions.
- Enhancing medevac services by increasing staffing levels and resources would benefit health care personnel working in Nunavut and the Northwest territories.
- Participants shared a diversity of perspectives on communication related to patient transfer
- Increasing recruitment and retention (especially of local community members) would increase health care service and decrease low staffing levels and absenteeism.
- Participants asked for administration to take a leadership role in ensuring that all staff are adequately supported and have all relevant credentials.
- Participants identified a need for ongoing access to education and training for professional development.

Recommendations

- Clearly define scope of practice for CHNs and SCHPs.
- Develop, promote and train on current clinical guidelines.
- Increasing the number of staffed positions in health centres to address burnout, clinic closures due to overtime, and other related staffing challenges.
- Protocols for ensuring all staff are up-to-date with relevant certifications and trainings.
- Greater support for ongoing and continuing education and training for professional development.
- Improved communication protocols and procedures for medical evacuations and patient transfers
- Updated, clear medical travel escort policy, which is effectively communicated to all health centres.
- An evidence-based recruitment and retention strategy for nurses

Areas of future research

- Relationships between health care personnel in context of patient transfers and medevac
- More research must be conducted on the right-to-refusal practices and outcomes of patients that have been refused, specifically for mental health issues.
- The main issues regarding low retention rates of health care staff in the Northwest Territories and Nunavut.
- The perspectives of medical evacuation staff on: medical evacuation policy and relationships with other health care personnel (mainly NP's, RN's, and MD's).

Introduction

Circumpolar health care systems possess a unique set of strengths and challenges in health care service delivery, which differ from seemingly comparable health service delivery models in southern communities. The Yukon, Northwest Territories, and Nunavut comprise part of the circumpolar region (Young, Chatwood et al. 2015). The distribution of communities over a vast landscape with diverse climates and extreme weather patterns often challenge health care delivery in Nunavut and the Northwest Territories.

Prior to the 1950s, formal governmental health care services were almost non-existent in northern Canada. Health care services were provided by the federal government until 1967 when they were devolved to the Northwest Territories and later to Nunavut when Canada's 3rd territory was formed in 1999 (Canada 1993, GNWT 2015).The territorial government has a department of health which is responsible for administering a range of health and health care services, in particular, medically necessary hospital and primary care services that are defined as "insured services" under the *Canada Health Act (Marchildon 2005)*.

Primary care services in Nunavut are accessed through community-based health clinics. Primary care clinics are commonly known as community health centres and have been built on the nursing stations and outposts initially established by the federal government in the 1950's. The community health centres are staffed by community health nurses (CHNs), community health representatives (CHRs), and other important support staff, such as interpreter/translators, x-ray takers and telehealth technicians.

When more advanced care is needed, patients are evacuated through 3 pathways. 1) A scheduled evacuation (sched-evac), in which case a patient is referred to a tertiary care centre on a regularly scheduled flight (for chemotherapy, for example) ; 2) An emergency medical evacuation (med-evac), for which an air ambulance is dispatched to transfer the patient to a tertiary care centre under the supervision of a flight nurse and/or physician; 3) Obstetric evacuation (OB-evac), for which a pregnant mother is transferred to the nearest birthing centre or hospital at 36 weeks in the pregnancy for monitoring and delivery, and then returns home within 1-2 days of delivery.

Evacuating patients from their home communities to larger urban centres is known to have several impacts on patients, including loss of autonomy, high stress, and social dislocation (Wagner, Osepchook et al. 2012). Further complicating the health care service delivery model is the over-reliance on transient health care professionals on fly-in/fly-out contract models. Several key areas of concern that have been raised with this model include: Patient exhaustion (repetition of story); wasted staff time (repetition of procedures); lack of orientation of short-term or relief staff: cultural, medical, procedural; primary care teams: Challenge in creating a team with constantly changing people; poorer patient outcomes; lack of continuity of care and communication; fewer opportunities to build trusting relationships in the community (Cherba and Healey 2017).

Methods

A survey was conducted in 2016 to examine the perspectives of health care personnel who worked in either the Northwest Territories or Nunavut (or both) regarding clinical support, medical evacuation procedures, scope of practice, and primary health care services. A total of 284 medical personnel answered 24 questions (both likert scale questions and open-ended responses) between February and April 2016. The data were analyzed using quantitative and qualitative analytical methods, with the results discussed below.

Data were analyzed using qualitative and quantitative analysis methods. Qualitative data triangulated some of the quantitative findings and also highlighted additional topics that were not directly addressed in the quantitative portion of the survey.

NVivo software was used for coding and thematic analysis of qualitative data. SAS software was used to develop descriptive statistics for the quantitative data. Results were analyzed concurrently and synthesized. It is noted as a limitation that most quantitative analysis yielded high missing response rates to questions.

Overview

Participants answered 24 questions concerning clinical support, medical evacuation procedures, scope of work, and primary health care services.

A total 284 health care practitioners took place in the study. Forty-three percent (n = 141) worked primarily in the Northwest Territories, 50% (142) of respondents worked in Nunavut, and 7% (n = 20) worked in both regions.

Table 1: Regional distributions of survey participants

Territory	**Region**
Nunavut	Qikiqtaaluk 23%(n= 81)
	Kivalliq 19% (n = 66)
	Kitikmeot 11% (n = 39)
	Iqaluit 10% (n = 34)
Northwest Territories	Beaufort Delta 10% (n = 35)
	Sahtu 5% (n = 16)
	Dehcho 6% (n = 22)
	Tlicho 3% (n = 12)
	Hay River 6% (n= 20)
	Fort Smith 5% (n = 17)
	Yellowknife 14% (n = 49)
	Stanton 6% (n = 20)

Table 2: Regional distributions of survey participants in NWT in 2015

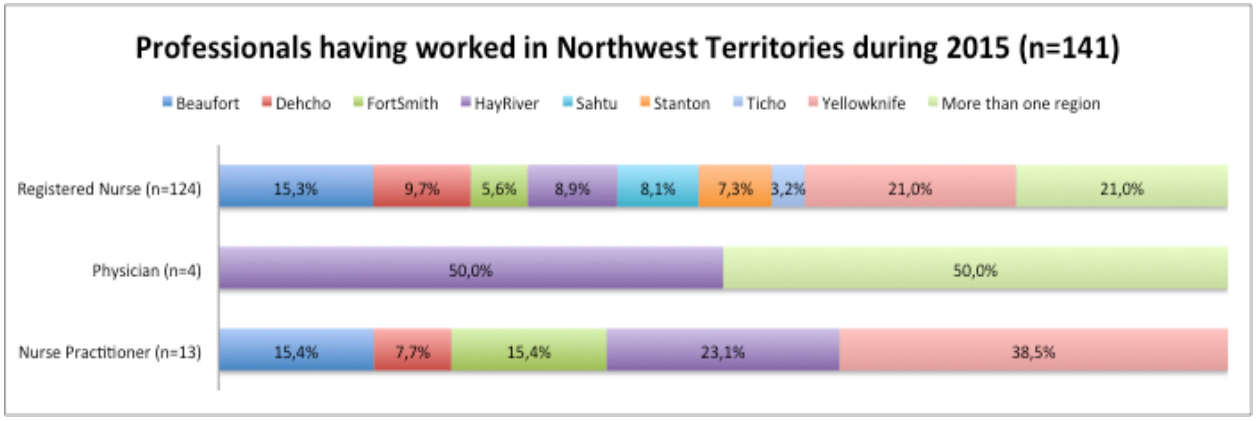
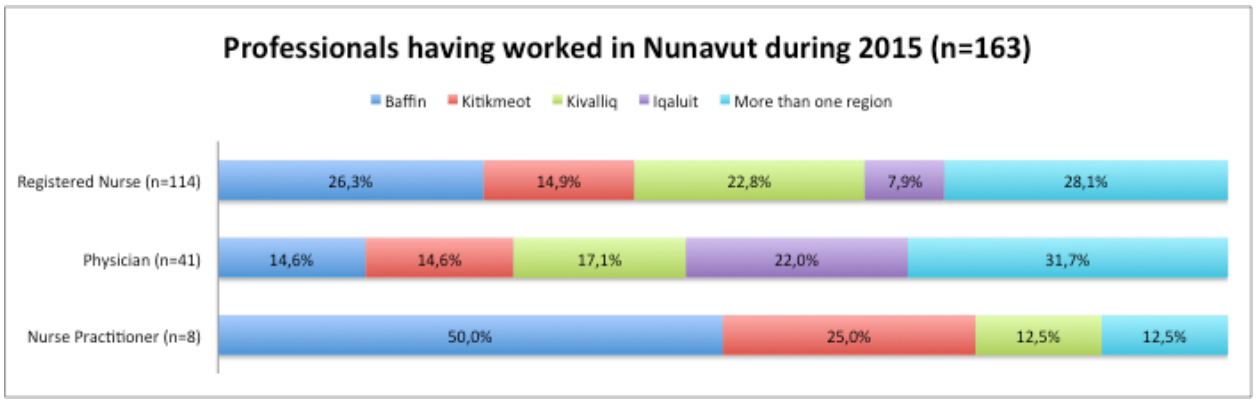


Table 3: Regional distributions of survey participants in Nunavut in 2015



Sixty-four percent of respondents identified as registered nurses (RN's) (n = 223), while 6% identified as nurse practitioners (NP's) (n = 20), and 12% as physicians (MD's) (n = 41). 37% of participants indicated they had 0 to 5 years of experience, 23% indicated 5 to 10 years, 18% indicated 10 to 15 years, 5% indicated 20 to 25 years, and 8% indicated 25 years plus of experience (of note are: two participants at 36 years of experience, two at 37 years, and 1 at 45 years of experience). (missing response 27%, n= 257)

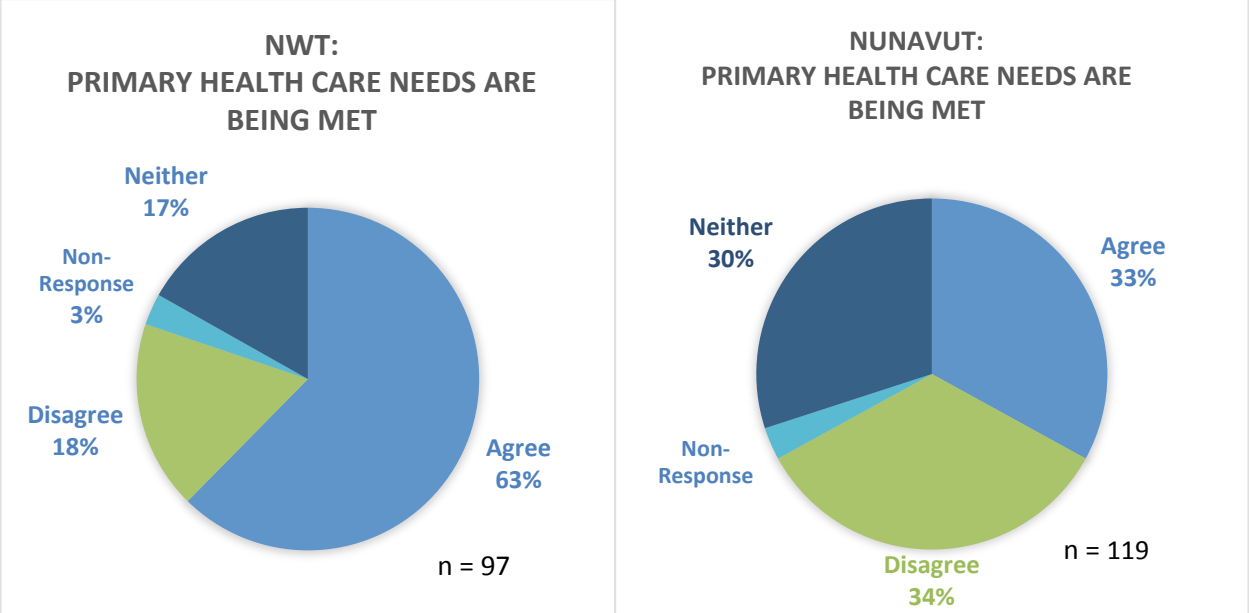
It should be noted that there are very high rates of missing responses, which range from 30% to 60% for some questions, therefore results should be interpreted with caution.

General Comments

- 84% (189) of respondents indicated they were satisfied with their profession, 12% (n = 27) were neutral, and 4% (n = 90) were unsatisfied with their position. Participants were generally happy with the time they have to spend with each patient;
- 67% (n = 150) of respondents identified to either be satisfied (40%, n = 90) or very satisfied (26%, n = 60) with the time spend with each patient, 13% (n = 30) were neutral, 17% (n = 38) were not very satisfied, and 3% (n = 7) were not at all satisfied

- 47% (n = 106) of respondents stated the primary health care system in Nunavut and the Northwest Territories serves the needs of its people; 26% (n = 61) stated the system does not meet the needs of its patients, 24% (n = 56) neither agreed or disagreed, and 3% (n = 8) remained neutral.
- Respondents answered they make on average 6 calls a week to obtain clinical support and/or guidance (n = 147) and receive 11 calls a week from communities to provide clinical support and/or guidance (n = 63).

Figure 1 & 2 : Survey responses on the topic of health care needs in NWT and Nunavut



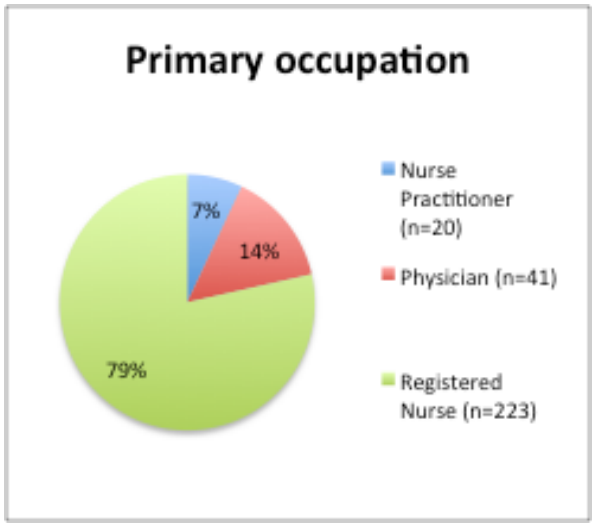
Major Findings – Quantitative Data

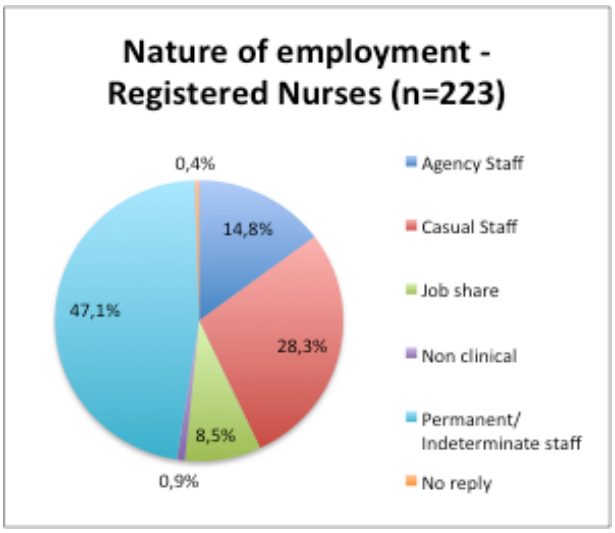
Primary Occupation and Nature of Employment

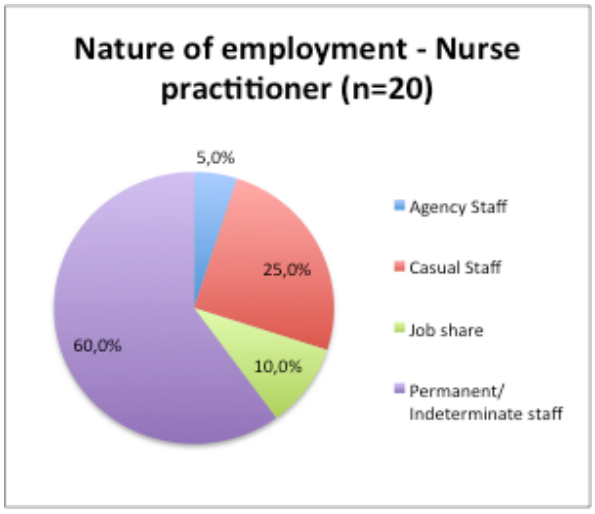
- Occupation distribution of respondents: 223 Registered Nurses (79%); 41 physicians (14%); and 20 nurse practitioners (7%)
- Nature of Employment for Registered Nurses (n=223): 47.1% were permanent/indeterminate staff; 28.3% would be casual staff; 14.8% were agency staff; 8.5% were on a job share; 0.9% of respondents were in non-clinical; 0.4% non-response.
- Nature of Employment for Nurse Practitioners (n=2-): 60% were permanent/indeterminate; 25% were casual staff; 10% were on a job share; and 5% were agency staff.
- Nature of Employment for physicians: (n=41): 76% were locum/short-term contract staff; 22% were permanent/long-term contract staff; 2% did not respond.

Figure 3: Primary Occupation of survey participants

Figure 4: Nature of Employment – Registered Nurses







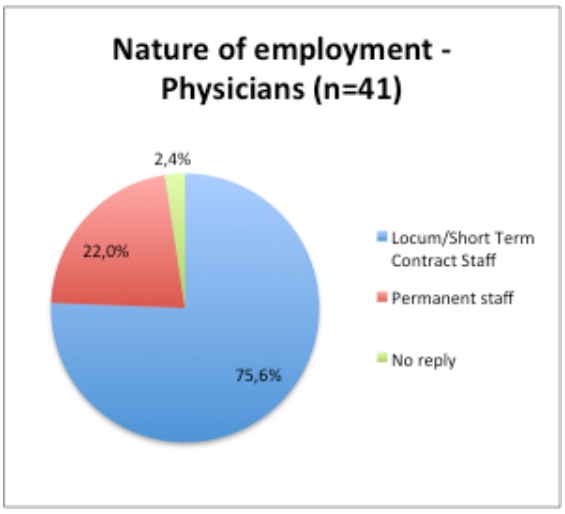


Figure 5: Nature of Employment – Nurse Practitioners

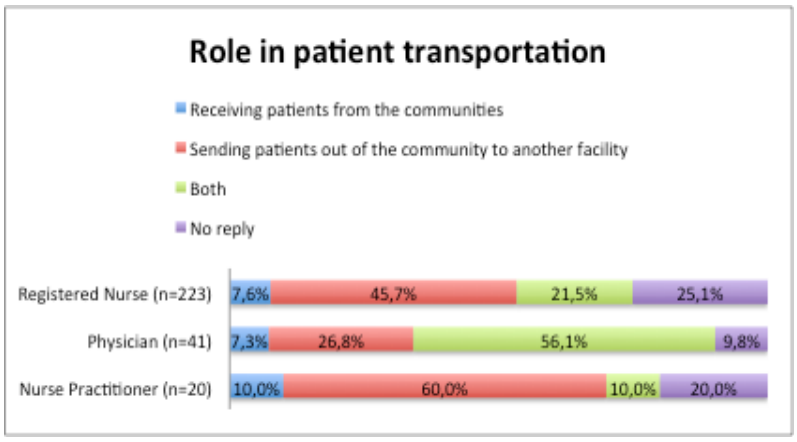
Figure 6: Nature of Employment – Physicians

Role in Patient Transportation

- 8% of respondents indicated the received patients from smaller communities; 44% sent patients out to tertiary centres; 26% reported they provided both functions; 22% did not respond (total responses = 284)

Table4: Role in Patient Transfers

Figure 6: Nature of Employment – Physicians



Places of Work in 2015

- Survey respondents worked across all regions of the territories in 2015.
- 33% of respondents had worked for 1 to 5 years in the Northwest Territories or Nunavut
- 21% of respondents had worked for 6 to 10 years in the Northwest Territories or Nunavut
- 36% of respondents had worked for more than 10 years in the Northwest Territories or Nunavut

Seeking assistance with patient management

- 49% of respondents were able to obtain support with 1 phone call; 26% required 2 phone calls to obtain the support they required; 24% required 3 or more phone calls to obtain the support they required
- 43% or respondents were able to resolve their issue by speaking with 1 person; 30% by speaking to 2 individuals; 25% by speaking with 3 or more individuals.
- 33% of respondents indicated that from their last call, it took 1-10 minutes to obtain support; 34% indicated 15-30 minutes to obtain support; 10% indicated 35-45 minutes; 21% indicated 1-2 hours to obtain support.
- 65% of respondents indicated they made 1-5 calls per week to obtain support/guidance; 25% made 6 to 10 calls per week; 35% made more than 11 calls per week to obtain support or guidance.

Table 5: How many calls to obtain needed support?

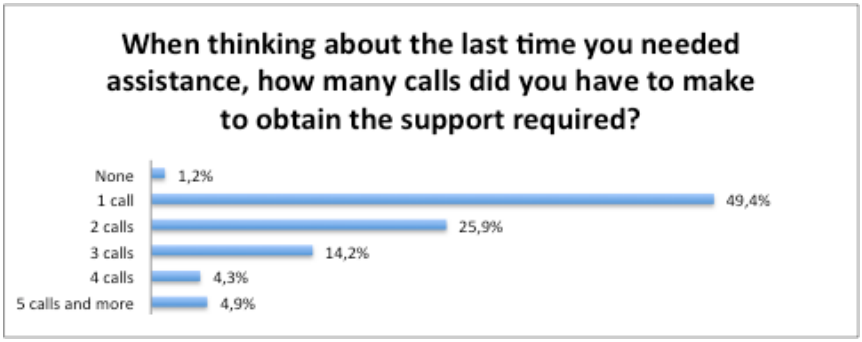


Table 6: How many individuals consulted to obtain support?

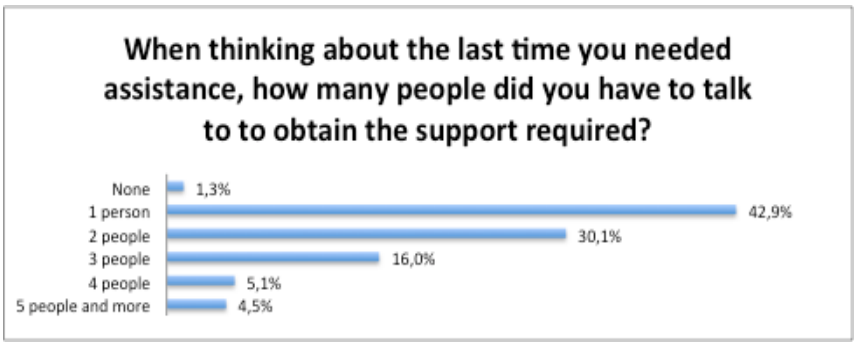


Table 7: Time from last call to obtain support.

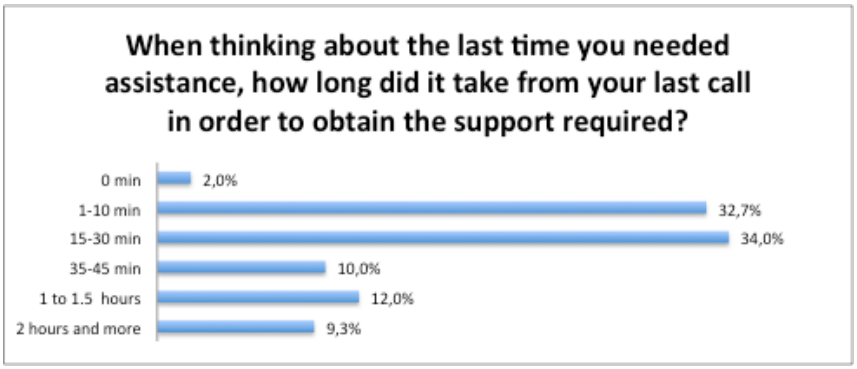


Table 8: Average number of calls made per week to obtain clinical support/guidance.

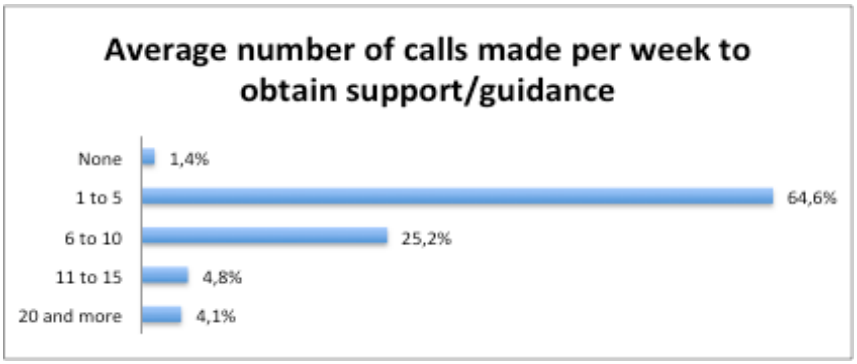
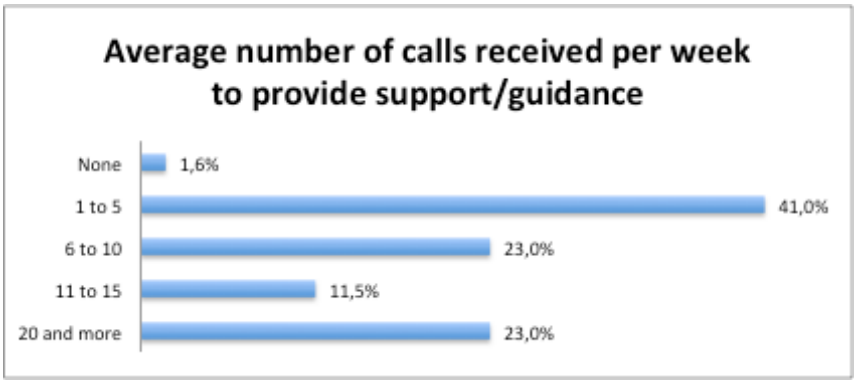


Table 6: Average number of calls received per week to provide clinical support/guidance



Major Findings – Qualitative Data

Administration and Human Resources

Regarding policy and administration, respondents identified gaps in the areas of clear leadership and guidance. One participant articulated a need for guidance and suggested clinical guidelines should be supported, shared, and implemented through administrative protocols:

"[There] needs to be more clinical guidelines in place. Everyone seems to bring their own take on treatments." (ID: 4490379249)

"Practice guidelines need to be updated and the main source of direction. There is no one source of treatment guidelines as far as medication. I can go to 4 different sources and get different directions. There still needs to be paper copies of resources not just the computer." (ID: 4490315298)

A concern brought up by a participant is the lack of consistency in defining scope of practice,

"Different authorities do different things, some have policy some don't, and some nurse's respond out of facility and some don't. Inequity in system for clients and very confusing and stressful for nurses who may rotate from one region to next… The DHSS should define what the scope of nursing services is across the territory so it is equitable for all citizens." (ID: 557447915)

Lack of support in administration was also highlighted,

"Administration when called for support would often say 'figure it out yourself.'" (ID: 4557338117)

Scope of practice and clinical decision-making

In the study, when asked about scope of practice, 46% (n= 105) of respondents said they used their full scope of practice, 36% (n= 81) said the used most of their scope of practice, 11% (n= 26) said they used half their scope of practice, and 7% (n= 15) of participants said they used little of their scope of practice [Table 20, n = 227].

Eighty-two percent (n = 186) of respondents indicated they are satisfied with the freedom that have to make clinical decisions to meet the needs of their patient (with 42% (n= 95) being very satisfied), 5% (n = 10) indicted being unsatisfied, and 13% remained neutral [Table 21B, n = 227].

In response to the open-ended questions, respondents indicated that they felt that administrators needed to be more supportive of personnel, take on a leadership role in defining scope of practice for health care personnel, and support ongoing education and career development.

"Medical staff suffers from benign neglect and there is no interest at all in advancing their training, recruiting them or actively supporting them. Health care administration is extremely poor, often incompetent, due to people filling positions above their competency level, unfilled positions and absenteeism." (ID: 4515599387)

When practitioners are required to work beyond their scope of practice, this is known to contribute to job dissatisfaction, work overload, and burnout, which in turn contributes to absenteeism and

increased vacancy rates (Garret, 2008; Laschinger, K et al., 2009). The lack of clear definition and parameters of scope of practice, lack of administrative and human resources support, and policy development/implementation, are known challenges. Fifty-one percent (n = 116) of participants were satisfied with the level of understanding others have of their scope of practice, with 15% (n = 54) being unsatisfied, and 25% (n = 56) remaining neutral [Table 21E, n = 226]. Without clear definitions of scope of practice, practitioners feel burdened with expanding job roles and expectations,

"*In addition nurses and clinic staff are saddled with more and more administrative tasks off loaded from other departments. There are no gatekeepers. No one to say 'the nurses have enough to do'."* (ID: 4558228724)

Improvement to overall health service delivery is difficult when underlying administrative and support issues that impact recruitment and retention of staff, go unresolved.

Education and Ongoing Training

Twenty-three percent (n = 51) of respondents indicated they were very satisfied with their ability to remain knowledgeable and current with the latest development in their field of practice, while 43% (n = 97) said they were somewhat satisfied, 13% (n = 31) remained neutral, 4% (n = 8) indicated they were unsatisfied with their ability to stay knowledgeable and current, and 1% (n = 2) said they were not at all satisfied with their ability to stay knowledgeable and current [Table 21A, n = 227].

In the qualitative analysis the following topics were raised: continuing education for nurses, cultural education for practitioners, proper orientation and training for new practitioners, access to ongoing education programs, and a greater focus on preventative health care measures – not just curative health care measures. The "*lack of continuing and up to date education for nurses and support staff*" (ID: 4526393425), was problematic, with negative implications on clinical care.

One participant highlighted that nurses were dedicated but we lacking support and training,

"I constantly am consulted by the nurses working in the region. They are dedicated and hard working. They are not, however, trained to do the work they have to do – either before they arrive or after. They learn on the job, without the benefit of orientation at the start or of ongoing education." (ID: 4519194528)

Two other areas support for education and training included cultural training and preventative health care. One participant, specifically mentioned the need for *"more education in cultural assessments and the time to do it properly"* (ID: 4559235905),

"[There is a] need [for] much more education on PHC [primary health care], preventative medicine and enable HCPs [health care personnel] to practice PHC." (ID 4506593460)

One participant identified that nurses traveling to the region(s) for work do not always have sufficient training to work in the Northern context:

"New nurses that come up to the North to work [in] primary care are not well prepared for the challenge[s] one faced. It should be mandatory that the newly hired CHN [community health nurse] take a course provided by the Health Department." (ID: 4505273629)

Mentorship of new staff is also identified as lacking and would be a good opportunity to orient and support new staff.

Ensuring competencies are up to date and sufficient was noted as an area in need of improvement,

"There needs to be more encouragement from HR and administration to have all practicing RN's [registered nurses] up-to-date with certifications, more clear and concise policies. Ensuring competent practice is a necessary requirement of nurses in southern provinces, it should be especially pertinent in the north where scope of practice is that much greater." (ID: 4624631426)

A heavy workload was also identified as a barrier to continuing education and training.

"Workload is too heavy. It hampers professional growth as it is hard to obtain leave to take professional courses, which are often offered outside the community. Workload also decreases the time for professional consultation and education. Nurses are often thrust into situations where they are under-prepared and asked to do tasks that may be unfamiliar: this request comes from health centre colleagues and staff from out-lying centres." (ID: 4557452629)

Medevac and Patient Transfers

- 65% (n = 148) of respondents stated they were able to communicate with other providers involved in a timely manner to advance the care of a patients to some extent; and
- 23% (n = 52) agreed they were able to communicate to a great extent with other providers
- 65% (n = 112) of RNs (n = 112) and MDs (n = 112) who responded stated they were able to communicate with care providers to some extent, while 58% (n = 11) of NPs stated they were able to communicate to providers to some extent.
- Regarding telephone support for patient transfers, the number of staff contacted in order to receive clinical support, and the time lime for receiving clinical support:
- 91% of respondents said they needed to make 3 or fewer calls to obtain the clinical support needed.
- 43% (n = 67) of respondents said they had to talk to only one person in order to receive clinical support (90% (n = 141) stated they spoke to three or fewer people)
- 91% (n = 137) stated the had to wait 90 minutes or less to receive the information needed from the time the call was placed to the time the information was received (with 70% (n = 104) having to wait 35 minutes or less).
- 63% (n = 121) of overall participants answered that they were generally able to have immediate access to clinical advice on patient management;
- 60% (n = 116) stated that the health care practitioner who received their call understands the conditions under which the respondent worked; and
- 76% (n = 146) of respondents answered that their assessment of a patient's condition for an evacuation was accepted.

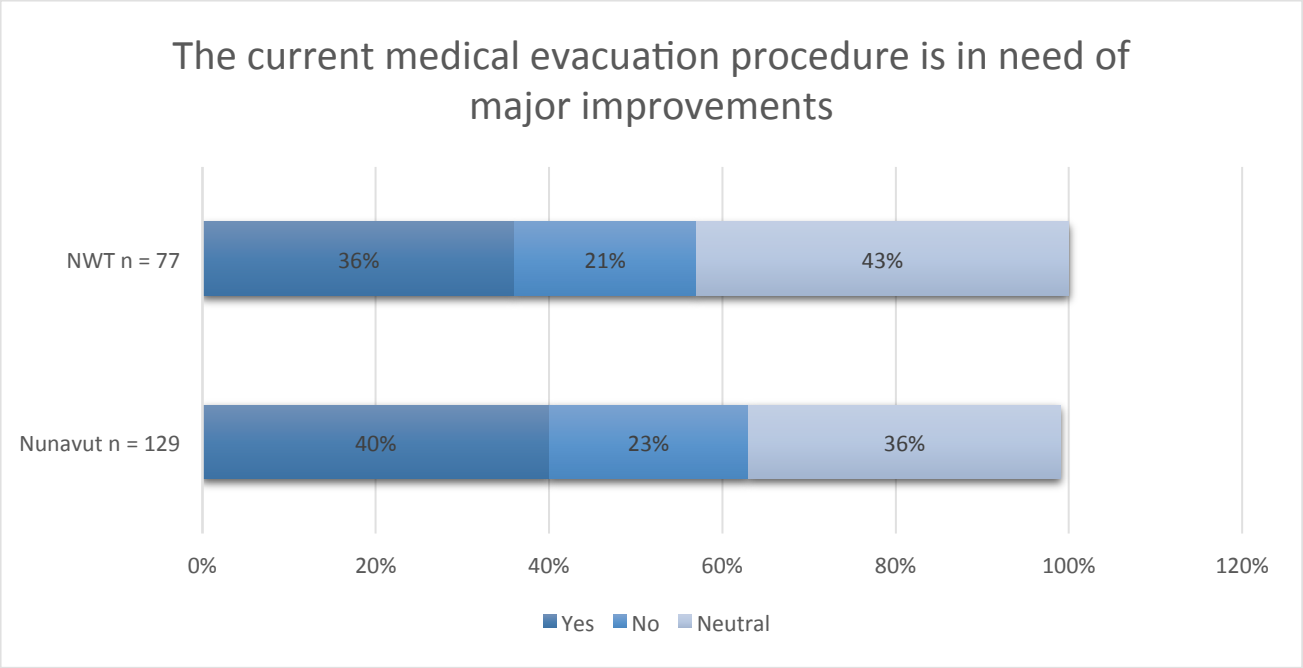
Response Time

- 56% (n = 110) of participants stated the response time between placing the first call for an air ambulance and the time to dispatch is generally acceptable; 23% (n = 44) disagreed and 21% (n = 41) neither agreed nor disagreed.

- 30% (n = 6) of respondents working in the Kivalliq region disagreed; those working in Sahtu were split exactly down the middle with 38% (n = 3) agreeing that response time was acceptable and 38% (n = 3). [Table Kiv 9A, n = 20; Hay 9ASah 9A, n = 8]

Medevac Policies

- 39% (n = 81) of participants in the study felt that the current medical evacuation procedure is in need of major improvement; 23% (n = 47) disagreed with that statement and 38% (n – 79) neither agreed nor disagreed. [Table 11, n = 207]
- 39% (n = 15) of MD's in the study indicated that they *did not believe* the current medical evacuation procedure needed major improvement; 24% (n = 9) *believe* that the current medical evacuation procedure needs major improvement, while 37% (n = 14) neither agree nor disagree. [Table MD 11, n = 38]
- The perspective from the MD respondents conflicts with perspectives from RN's and NP's; 43% (n = 66) of RN's and 40% (n = 6) of NP's agreed that the procedure needs major improvements. [Table RN 11, n = 154; NP 11, n = 15]
- In the Northwest Territories overall, 36% (n = 28) of participants agreed there was major need of reform for the medical evacuation procedure. [Table NWT 11, n = 77]
- In Nunavut, 40% (n = 52) of participants agreed there was major need of reform for the medical evacuation procedure. [Table NU 11, n = 129]
- In the Kitkimeot and Beaufort-Delta regions, 26% of *participants disagreed* that the procedure is in need of reform. Conversely, 35% of participants in Baffin Island *agree there needs to be major improvements* (14% of which who strongly agree), as well as 38% in Sahtu, 44% in Kivalliq, and 35% in Iqaluit. It is noted that this question in the survey yielded a 42% missing response rate, meaning it should be revisited and included, in some iteration, in future research to be further explored. Q11 TERRITORY
- 63% (n = 148) of participants indicated they received information regarding the medical evacuation policy procedure [Table 13, n = 235]: 36% (n = 83) said they received information at the beginning of their term of hire, 27% (n = 62) said they received the information at another time, 11% (n = 26) said they never received any information regarding medevac policy, and 27% (n = 62) said the question was not applicable to them. [Table 14, n = 233]
- Among those who did not receive medevac procedures 54% (n=14) were RN's, 5% (n=4) were NP's, and 31% (n=8) were MD's. Those who *did not receive information* were more likely to be from the Northwest Territories, specifically Yellowknife (27% (n = 7) did not receive information) and Dehcho (19% (n = 5) did not receive information). [Table Q 14 Territory Break Down, n = 26]



Patient Transfer and Communication

- 72% (n = 78) of respondents agreed that their instructions for clinical management prior to the transfer were are understood and implemented; 6% (n = 6) disagreement with the statement and 22% (n = 24) neither agreed nor disagreed. [Table 10C, n = 108]
- 82% (n = 92) agreed that patient pre-transfer and in-transit management was appropriate, 4% (n = 5) disagreed, and 13% (n = 15) neither agreed nor disagreed. [Table 10D, n = 112]
- 69% (n = 76) of participants agreed that clinical information provided to them on the phone was generally clear and relevant, compared to 7% (n = 8) who disagreed and 23% (n = 25) who neither disagreed nor agreed. [Table 10A, n = 110]
- 64% (n = 72) of respondents said the clinical information accompanying a patient is usually clear and succinct (15% (n = 17) disagreement with the statement and 21% of respondents neither agreed nor disagreed). [10B, n = 113]

One respondent noted a perceived lack of collegial communication between the practitioner in the health centre and the receiving medevac team,

"[A] care provider assessment and diagnosis is often negated by med evac[uation] team member, this leads to primary caregiver stress over potential miss-management once care is transferred. Medevac team members seem to presume primary caregivers are lesser skilled and experienced and treat the primary caregiver in an extremely condescending fashion. I have experienced 3 events where the med evac[uation] team assessment errors have had the potential to create increased harm and negative side effects for the client, and yet I no longer have any access to expressing clinical concerns with the receiving facility." (ID: 4498898075)

Respondents noted that at times there is high demand for medevacs and a limited availability of medevacs, which can have a significant impact on health outcomes for the patient.

"Need for more staff, as pilots and flight nurses have to rest after certain hours and most times there is no replacements until the next shift. This causes major delays, plus not enough aircraft." (ID: 0000)

"Often times, insufficient medevac capacity, due to many communities requesting medevacs… leaves us in the community spending many long hours providing clinical care and depleting staff reserves in the community." (ID: 4490245759)

"The air ambulance in the Baffin and Kiv[alliq] region needs to change. They do not provide the support needed for the area. They do not have experience staff and at times they have had nurses flying without Nunavut licenses." (ID: 4490521693)

Refusal of transfer – Medevac

The right of refusal of a medevac a facility: i) refuses to receive a medevac patient, ii) the community health centre is asked to hold onto the patient, or; iii) a health care staff member is required to accompany the medevac patient, there are numerous unintended consequences.

Some respondents highlighted the challenges attributed to the times that a receiving facility has refused the transfer of a patient. In these cases, the care of the patient has remained the responsibility of the community health care personnel until an alternate facility could be found. This was associated with stress and complications for the practitioner,

"*We are at the mercy of the receiving hospital's emergency dept. If they are busy, we have to wait and sometimes have to make numerous calls to even speak to a doc and sometimes resort to other docs/nurses in other catchment areas for support."* (ID: 4507698618)

Procedures and policies for receiving facilities are argued to be confusing and ineffective,

"the procedure states we need a receiving physician in order to send. Yet the policy states the person in the community has the final say... (usually a CHN [community health nurse]). Some MD's in ER insist on a physician calling them to discuss 'physician to physician' regarding a p[atient] case and deciding to accept or not". (ID: 4492888709)

Overtime for Emergencies

In emergency situations, community health care practitioner can either be required to attend to a patient beyond their scheduled shift, and/or be asked to accompany a medevac flight for any number of clinical reasons. Health care practitioners indicated that this results in an increased working hours for health care personnel. They are compensated for this time, however the additional working hours deplete staff reserves and in some cases, have contributed to clinic closures due to a lack of availability of rested staff members. Closing or reducing clinic hours has a significant impact on access to health care services.

Respondents indicated they felt there was a lack of standard receiving procedure/formula for medevacs related to mental health issues. They felt the lack of standards created confusion and tension, and also resulted in a patient being refused from a facility based on a set of complex criteria that were not well-described by the participants.

One patient provided an example specific to the Kivalliq region of Nunavut,

"In the Kivalliq region it is difficult to medevac our certified mental health patients as there is no standard algorithm used by receiving facilities. All receiving facilities also retain "right-of-refusal" regardless of what we've tried, which I find unreasonable." (ID: 4519078250)

One participant highlighted that costs associated with a medevac has impacted a receiving physician's decision about receiving a medevac. This perspective, however, does not take into account the depletion of staff resources in a health centre that would result when a medevac is refused,

"The greater challenge is with physicians who don't want to medevac but ask the nurse to observe overnight, this always seems to occur after they receive the lecture on [the cost per medevac] but don't appreciate [that]… keeping [staff] overnight means a nurse will be up for 24 hours and the clinic will be short staffed the next day and may have to go on emergency services because they are now critically short staffed." (ID 4491714141)

Escorts – Medical Travel

- Within medevac policies, there is concern over policy regarding medical escorts being confusing and unclear.
- 38% (n = 90) of participants stated the policy regarding escorts *is clear* and 39% (n = 92) it was *not clear*, with 23% (n = 53) of respondents finding the question not applicable. [Table 16, n = 235]
- Of those who said medevac escort policy was not clear, 79% (n = 114) were RN's, 14% (n = 20) were MD's, and 8% (n = 11) were NP's, indicating there is need for RNs to receive more information about medical travel escorts policies. [Table Q 16 Breakdown by Personnel, n = 145]
- 40% (n = 55) of respondents from Nunavut stated medevac escort policy was not clear. [Table 16 By Territory NU, n = 138]
- 37% (n = 35) of respondents from the NWT stated medical travel escort policy was not clear. [Table 16 By Territory NWT, n = 95]
- 34% (n = 80) of participants said they did not find the medevac policy on escorts' fair, while 38% (n = 88) of respondents found the policy was fair and 28% (n = 65) said the question was not applicable to them. [Table 17, n = 233]

Using clear and plain language to explain policy and procedure was identified as an important recommendation:

"*The medical [travel] escort policy gets more difficult to understand every time they mess with it. They should stick to layperson's terms and avoid jargon, keep it fair, and then stick to it, because when you allow exceptions it leads to bad feelings all around, and basically negates the policy when it becomes optional to follow it, or accepted practice becomes to ignore parts of it."* (ID: 4557446925)

Medical travel escort approval, especially during times of crisis, was addressed by a number of respondents,

"…patients should be approved an escort, I find it inhumane to take a patient out of their community during a crisis without any support." (ID: 4630646579)

"If the patient falls between 16-65 years they generally are refused and escort - period. There should be more discretion requiring that the escort be 'competent', emotionally and reliable." (ID 4628927351)

In some cases, patients travelling without the support of an escort are unable to advocate for their medical rights due to medication, medical intervention, and cultural and language barriers,

"Some of our traditional elders feel frightened and lost during an evacuation. Just because they speak partial English does not mean they really understand nor does it mean they will be able to express themselves. Informed consent can be difficult in these cases." (ID: 4561333636)

The need for a streamlined approach was noted, as well as an example of a situation that arose due to lack of clear policy, procedure, and communication,

"A more streamlined territorial wide procedure would be helpful for clinicians who work in all [three] regions." (ID: 4557509217)

"A policy needs to be available that is implemented that both hospital and air ambulance are aware of. More knowledge should be made available to staff nurses regarding air ambulance procedures and medications available. For example: in one instance I had a medic request that I give a patient a larger dose of medication than what was ordered by the attending Physician at the hospital. Medics are unable to give D[octor's] orders to nurses." (ID: 4490308831)

Clinical Support and Guidance

- 63% (n = 152) of participants agreed that the response time (the time between placing the first call to receiving clinical support and/or guidance) is generally acceptable, with 61% (114) of RN's agreeing that response time is reasonable. **[Table 3A, n = 242; Table RN 3A, n = 187]**
- 66% (n = 158) of participants said they had consistent access to clinical support and guidance by phone when required. **[Table 3B, n = 241]**
- 43% (n = 102) agreed that they have immediate access to clinical support when required, 23% (n = 55) disagreed, 17% (n = 41) neither agreed nor disagreed, and 18% (n = 42) said it was not applicable. **[Table 3C, n = 240]**
- 33% (6) of NP's disagreed with having immediate access to clinical support; 28% (n =5) of NP's that felt they had immediate access compared to 44% (n = 81) of RN's and 43% (n = 16) MD's that stated they had access to clinical support. **[Table NP 3C, n = 18; RN 3c, n = 185; MD 3C, n = 37] Q3C**
- 50% (n = 5) of respondents working in Sahtu felt they did not have access to immediate clinical support **[Table SAH 3C, n = 10]**
- 64% (n = 154) of participants agreed they received the necessary support and guidance regarding patient care, 6% (n = 14) disagreed, 13% (n = 32) neither agreed nor disagreed, and 17% (n = 40) said the questions was not applicable to them. **[Table 3D]**
- 46% (n = 112) said they felt the health care practitioner taking the call usually understands the conditions in which they work, 19% (n = 45) disagreed to that statement, 17% (n = 42) neither agreed nor disagreed, and 17% (n = 42) found the question not applicable. **[Table 3E, n = 241]**.

Staffing and Personnel

The hiring of practitioners who respondents perceived to have a lack experience or training was a significant concern,

"*Nurses are often inexperienced in northern care and have received little orientation. This has a very significant impact on care. Nursing staffing is often too low to allow provision of quality care."* (ID: 4515599387)

"[There] needs to be standardized skills check lists; meaning nurses coming up north need to know more than what they do…It's unacceptable to hire nurses that have no prenatal care (for example) experience. It puts patients at risk; causes poor community-health center relationships." (ID: 4509021724)

"Nurses are assumed to have the competencies to provide 'advanced practice' care without having had any previous training outside their initial nursing and without having had a wide range of experience in more supervised settings." (ID: 4628927351)

The number of unfilled positions presents a constant and ongoing challenge for health care personnel in Nunavut and the Northwest Territories. Low staff levels equate to longer hours and heavier workloads, as well as burn out and absenteeism. Relief staff and transient staff who are hired to fill in during shortages were also highlighted as a point of stress for longer-term practitioners,

"Not enough staff to be able to work overnights – workload too heavy…" (ID: 4491714141)

"…overtime and after hours care with resulting clinic closures." (ID: 4561121657)

"*Transient staff causes patient frustrations of repeating info and developing trust."* (ID: 4494314100)

"The problem is with too much nurse turnover." (ID: 4557446925)

"One of the greatest challenges we face is the lack of permanent staff (nursing) although we have a core group of casuals who are excellent and return to the community for 2-3 months per year. The result though is the core group of health centre nurses are left struggling to maintain our public health programs." (ID: 4491714141)

Again, administrative support and human resources (and polices) impact recruitment and retention of staff.

"Administrative and institutional support is lacking. More than that... the lack of support sucks the life out of nursing time and patient care." (ID: 4558228724)

One respondent noted the challenges maintaining work-life balance and rest.

"The nurses have to run 24/7... We aren't able to have adequate rest." (ID: 4627971866)

"Rested nurses make better decisions. A rested nurse has more resilience and is better able to meet the emotional demands of this work." (ID: 4624675651)

A respondent noted the increasing population in Nunavut and the need for making comparative increases to staffing levels,

"It is difficult to provide adequate health care, especially health promotion, to an Increasing population with increased social problems with no increase in staffing." (ID: 4558228724)

One participant also raised concerns about staffing procedures,

"[An] HR department that puts off potential hires (i.e. not returning calls) and does not necessarily support workers. Sometimes there is an appallingly poor selection of new hires (including hiring people who were previously 'let go') and poor orientation. [There is] little support for new hires." (ID: 4558228724)

Cultural Competencies

The need for culturally-appropriate care was noted by respondents,

"[Indigenous] nurses are the answer to providing more culturally sensitive community care, however it is doubtful if those nurses can be retained in the communities as the workload, the demands of on-call and the amount of overtime expected run counter to maintaining a family life and work/life balance." (ID: 4624675651)

Another major concern that is connected to staffing and increasing recruitment and retention is with the health care service delivery itself. Many communities in the North of Canada are dependent on staff that come in to treat them and provide health care services. As such, these community members face serious limitations and obstacles in receiving health care due to lack of staff availability and timing limitation (ex, how frequently and for what duration is a physician in community?), *"Having a physician call in for 10 min 2 x a week is not good enough to support the patients, they are allowed to have access to care like everyone else without barriers."* (ID: 4490315298)

Other topics that were raised

Equipment. The need for improved access to equipment and resources was identified in the study to reduce the number of patients who are referred to tertiary centres for care.

"[Health care personnel] need access to additional equipment. Could prevent unnecessary and costly trips out of the community."(ID: 4601208590)

Increased access to resources are required for healthcare in the Northern context.

Accommodation and Housing. Concern over inadequate accommodation was mentioned in two specific contexts. First, displeasure was expressed with the current protocol for providing accommodation to nursing staff,

"Further to the system depending on consistent and experienced nurses, they have to stop housing us like sardines if they want us to keep coming back." (ID: 4557446925)

Second, housing in the community was discussed as a serious issue impacting the health of patients,

"Housing is possibly the number one issue affecting health in the communities. Overcrowding leads to increased spread of respiratory and gastrointestinal infections that are a significant part

of health care visits and can negatively affect mental health. Positive impact on housing would affect primary health care more than perhaps any other intervention." (ID: 4524765335)

Discussion/Conclusion

Overall, respondents were generally satisfied with their specific roles and duties, but raised a need for a definition of a scope of practice that can be applied across the Northern regions. Enhancing medevac services by increasing staffing levels and resources will benefit health care personnel working in Nunavut and the Northwest territories. Creating a definitive scope of practice that can be applied across the North will also benefit health care personnel and ideally decrease workload for staff. Increasing recruitment and retention (especially of local community members) will increase health care service and decrease low staffing levels and absenteeism. It is necessary for administration to take a leadership role in ensuring that all staff are adequately supported and have all relevant credentials.

Administration should also consider increasing support and ongoing access to education and training for professional development. There are no simple solutions for issues identified by participants in this study. However, one respondent outlines that the uniqueness of the regions discussed require a unique approach,

"With the unique conditions and health care needs comes challenges many helping us do not understand. We cannot being the same systems to this territory that work in the south. It requires a unique approach and much more resources." (ID: 4559495359)

With the specific concerns that are particular to the North, the following recommendations and future topics of research are suggested:

Limitations

The survey is not representative of all perspectives of

Recommendations

- Clearly defining scope of practice for CHNs and SCHPs
- Development, promotion of and training on current clinical guidelines
- Increasing the number of staffed positions in health centres to address burn-out, clinic closures due to overtime, and other related staffing challenges.
- Protocols for ensuring all hires are up-to-date with relevant certifications and trainings.
- Greater support for ongoing and continuing education and training for professional development.
- Improved communication protocols and procedures for med-evacs (medical evacuations) and patient transfers

- Updated, clear medical travel escort policy, which is effectively communicated to all health centres.
- An evidence-based recruitment and retention strategy for nurses

Areas of future research

- Relationships between health care personnel in context of patient transfers and medevac
- More research must be conducted on the right-to-refusal practices and outcomes of patients that have been refused, specifically for mental health issues.
- The main issues regarding low retention rates of health care staff in the Northwest Territories and Nunavut.
- The perspectives of medical evacuation staff on: medical evacuation policy and relationships with other health care personnel (mainly NP's, RN's, and MD's).

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