

Challenges in Recruitment and Retention of Paramedics:

Insights and Solutions in Northern Ontario



Prepared by

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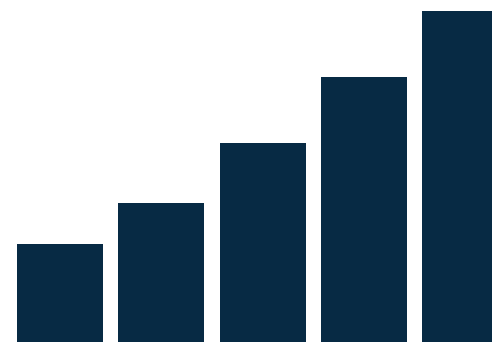


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Executive Summary

Introduction: How, where, and when people access health care are key indicators of the equity and effectiveness of health systems in Canada. Flight paramedics are a specialized group of professionals who work on air ambulances to transport sick and injured patients to the appropriate care centre. Ornge is the primary employer of flight paramedics as a ground and air ambulance provider in Ontario. The demand for air ambulances is greater in Northern and rural communities where access to specialty care is minimal. Understanding how to optimize the paramedic workforce could give insight into ways to improve staffing in Northern and rural settings, and increase the desirability to work and stay in these areas. This study aimed to examine facilitators and barriers to recruitment and retention of (flight) paramedics, specifically in Northern and rural Ontario settings.

Approach:

- A fifteen minute online survey was administered to a broad sample of paramedics in Ontario
- 45-60 minute semi-structured interview was offered to interested survey respondents
- Survey results were descriptively analyzed to understand how perspectives differ by personal and professional characteristics
- Short answer survey questions and interviews were thematically analyzed to identify barriers, facilitators, and recommendations for improving recruitment and retention strategies, specific to Northern and rural settings

Findings:

One hundred and sixteen surveys were submitted between October 2024 and January 2025. Twenty-one survey participants completed interviews, between December 2024 and February 2025.

Facilitators for increased recruitment and retention of Northern paramedic workforce:

- Higher education and training, full-time employment, competitive wages
- Scope of practice, enhancement of skills, career growth
- Being from and living in Northern Ontario

Barriers to recruitment and retention of Northern paramedic workforce:

- Cost of education, lack of availability of training programs (Northern locations)
- Management practices, negative internal culture, lack of transparency, organizational policies
- Heavy workloads, challenging working conditions (fixed-wing), staffing shortages, “burnout”
- Living/training outside of Northern Ontario - relocation, loss of social/family connections

Recommendations for improving recruitment and retention of Northern paramedic workforce:

- Recruitment/education/development pipelines in Northern Ontario
- Organizational transparency, commitments to creating a positive work environment, valuing Northern employees and offering strong supports and benefits
- Recruitment in the North = Retention in the North
- Recommendations to ensure equitable access to care for all people living in Ontario requires that Northern recruitment and retention is a priority.

Interpretation: Our recommendations offer ways for Ornge to strengthen the paramedic workforce in Ontario by transforming how flight paramedics are trained, recruited, and then leveraged long term. Notably, many of these recommendations are not for Ornge to action alone, but rather to work with system partners - local, provincial, and national - to co-create high quality care systems that improve health care access for all populations.

Introduction

How, where, and when people access health care are key indicators of the equity and effectiveness of health systems in Canada. Air ambulances are essential to achieve equitable health outcomes particularly for people living outside of major urban centres. Patients living in Northern, rural and isolated regions, including many First Nations communities, whose local health care services range from nursing stations to small clinics to a community hospital, must fly to access emergency or specialized services (1,2). In contrast, most people living in Ontario can walk or drive to an emergency room in 30 minutes or less (3). In addition to increased travel burden for people who need health care in Northern, rural, and isolated regions (4), these populations are often older, have multiple health conditions including mental health conditions, and are more likely to face systemic inequities in health compared to urban populations (5). Health care workers who serve these populations, including air ambulance teams, must have unique capacities and competencies to optimally provide care for people living in Northern, rural, and isolated regions.

Flight paramedics are a specialized group of health care professionals who work on air ambulances to transport sick and injured patients to the appropriate care centre. In Ontario, Ornge is the provincial critical care and air ambulance service provider and the primary employer of flight paramedics. In addition to transport medicine competencies, Ornge flight paramedics are primarily critical care paramedics who have the advanced medical scope of practice to treat and safely transport trauma and intensive care patients. Critical care paramedics are sometimes referred to as “mobile intensive care units” (6). The demand for critical care is typically concentrated in Northern, rural, and isolated communities where access to specialty care is minimal and the nearest referral centre is several hours away or not accessible by car. Consequently, the nature and extent of demands of flight paramedics in Northern and rural settings is different from the predominantly rapid, emergency transport among urban air ambulance calls.

Introduction

In 2020, the COVID-19 pandemic suddenly and urgently increased demand for flight paramedics (6), with increased patient transfers to hospitals with capacities, and with new care delivery models that leverage their competencies, such as vaccine clinics in isolated communities. Similar to other workforce sectors who are in “crisis mode” following pandemic conditions (7), flight paramedicine - and paramedicine more generally - is plagued by workforce shortages, in Ontario and Canada. In addition to increased workload, paramedics face increased risks of stress, burnout, physical and mental health challenges. Though more research is needed to fully understand health outcomes associated with the profession, the risk of negative health outcomes for paramedics working in low-resourced settings is likely heightened. Even more specifically, how professional issues observed in paramedicine and correlated outcomes might uniquely present themselves among flight paramedics; for example, how might shift work relate to negative health outcomes differently in flight paramedics than in land paramedics.

Like most other health professions, recruitment and retention issues are exacerbated in the areas where demand is greatest and more complex - Northern, rural, and isolated settings. These disparities are expected to worsen in the next five to ten years (8). Strengthening the flight paramedicine workforce immediately and moving forward is imperative to ensure the bare minimum access to health care for people living in Northern and rural settings. For the paramedic workforce, particularly those working in these high need and under-resourced areas, understanding how to optimize the paramedic workforce could give insight into immediate ways to improve staffing in Northern and rural settings, and increase the desirability to work and stay in these areas.

Ornge clinical education leads partnered with a research team at NOSM University (NOSM U) to co-design a project that would address the question “How can Ornge strengthen their paramedic workforce to address the needs of the communities they serve, especially in Northern and rural settings?” The present report describes the findings from the partnered study while outlining immediate and long-term opportunities for Ornge and system leaders who can influence change in paramedic workforce development and retention.

Objectives



EXAMINE

To examine the facilitators and barriers to recruitment and retention of (flight) paramedics, specifically in Northern and rural Ontario settings



IDENTIFY

To identify recommendations for Ornge to strengthen the (flight) paramedic workforce, specifically in Northern and rural Ontario settings

Approach

DESIGN

We used a brief online survey and follow-up interviews to understand the perspectives on recruitment and retention among Ontario paramedics. This study titled “Challenges in Recruitment and Retention of Paramedics: Insights and Solutions in Northern Ontario” was approved by the Lakehead University Research Ethics Board (Ref No: 31571). The survey link went live on October 29, 2024 and was closed on January 6, 2025. Interviews were conducted between December 16, 2024 and February 27, 2025.

SURVEY

A fifteen minute online survey was developed by the project team. After identifying the most important concepts, survey questions were informed by a literature review of paramedic and Northern and rural health workforce studies (9, 10), select socio-demographic questions (11), and open-ended questions to capture individual experiences. The survey was administered through NOSM U's survey platform, Canadian-based Qualtrics. A poster containing study information and a QR code with the survey was emailed to a listserv of Ornge paramedics, and the poster was shared on relevant social media. To elicit perspectives from potential or previous Ornge applicants, the study poster was also shared with paramedic leads at the different base hospitals across the province. As a result, the target population included all paramedics practicing in Ontario, estimated at 13,500 (12).

The survey was analyzed descriptively to understand who participated in the study, and compare responses between different subgroups such as Ornge vs non-Ornge employees, levels of training, years in practice. A thematic analysis of open-ended questions allowed us to identify barriers, facilitators, and recommendations for improving recruitment and retention strategies

INTERVIEW

Semi-structured interviews were offered to interested survey participants, so that we could elicit nuanced insights of the facilitators and barriers to recruitment and retention, as well as identifying opportunities to strengthen or improve the flight paramedic workforce. Interviews were thematically analyzed to enrich themes generated from survey results as well as identify further barriers, facilitators, and recommendations for improving recruitment and retention strategies.

Approach



ANALYSIS

We mapped our study findings to two previously published frameworks that acknowledge the unique workforce development concepts for Northern, rural, and isolated communities:

- The “Whole-of-Person” framework is a solution-focused, holistic, person-centred and evidence-based conceptual framework developed with the specific focus on factors that influence retention for the rural health workforce (13). The framework has three domains: Workplace/Organizational, Role/Career and Community/Place. Each domain encompasses the necessary conditions for improving retention through strengthening job and personal satisfaction levels.
- The “Plan, Recruit, Retain” framework highlights three strategic elements for finding and keeping high quality health professionals in Northern, rural, and remote settings (14). “Plan” refers to activities taken on by local, provincial, and federal health system interest holders to align population needs with service delivery models. “Recruit” is more localized to a place or employer, focusing on appropriate information sharing and integrating the workers and their families into the communities. “Retain” focuses on creating and maintaining a positive work environment and career trajectories.

Figure 1 (p. 26) illustrates how we integrated the two frameworks, and mapped our recommendations accordingly. A more in-depth mixed methods analysis that brings together the findings from the survey and the interviews will be completed in the next year.

Findings

Description of participants

Of the 123 total survey submissions, 116 people provided responses beyond consent to complete the survey. Assuming the survey was promoted to the entire paramedic workforce in Ontario, we estimate the overall response rate to be approximately 1%. Table 1 describes the survey sample across various personal and professional characteristics. More than half of the respondents (n=68, 59%) indicated that they are not current Ornge employees. There were notable differences between Ornge employee participants and non-Ornge employees, e.g., Ornge employees were more likely to have higher certifications (e.g., critical care).

Fifty survey participants (SP) indicated that they were interested to participate in a follow-up interview. Of the 50 who indicated they were interested, 21 (42%) participated in interviews between December 16, 2024 and February 27, 2025. Of the 21 interview participants (IP), 16 currently work at Ornge (76%), all had worked in Northern Ontario at some point, and 11 currently work at a Northern Ornge base. Of the non-Ornge employees, only one currently works in Northern Ontario, although 3 had experience during their career. Overall, 9 of the 21 interviewees grew up in Northern Ontario (43%). Of the 12 people who currently work in Northern Ontario, 7 grew up in Northern Ontario.

Table 1. Description of survey participants

<u>Demographics</u>	<u>Current Ornge Employee</u> <u>n (%)</u>	<u>Other Paramedics</u> <u>n (%)</u>	<u>Combined Data</u> <u>n (%)</u>
Total Respondents	48	68	116
Age			
Under 25	0 (0)	2 (2.9)	2 (1.7)
25-34	15 (31.3)	33 (48.5)	48 (41.4)
35-44	19 (39.6)	25 (36.8)	44 (35.8)
45-54	14 (29.2)	6 (8.8)	20 (17.2)
55-64	0 (0)	1 (1.5)	1 (0.8)
65 and over	0 (0)	1 (1.5)	1 (0.8)
Gender Identity			
Male	37 (77.1)	42 (61.8)	79 (68.1)
Female	8 (16.6)	25 (36.8)	33 (28.4)
Non-binary	0 (0.0)	1 (1.5)	1 (0.9)
Other / Prefer not to disclose	2 (4.2)	1 (1.5)	3 (2.6)



<u>Demographics</u>	<u>Current Ornge Employee n (%).</u>	<u>Other Paramedics n (%).</u>	<u>Combined Data n (%).</u>
Language of Practice			
English	47 (97.9)	68 (100)	115 (99.1)
French	8 (16.6)	5 (7.4)	13 (11.2)
Other	1 (2.1)	5 (7.4)	6 (5.2)
Ethnicity			
White	43 (89.6)	59 (86.8)	102 (87.9)
Indigenous	1 (2.1)	3 (4.4)	4 (3.5)
East Asian	1 (2.1)	3 (4.4)	4 (3.5)
South Asian	0 (0.0)	3 (4.4)	3 (2.6)
Mixed	1 (2.1)	1 (1.5)	2 (1.7)
Prefer not to answer	1 (2.1)	0 (0.0)	1 (0.9)
Marital Status			
Single	6 (12.5)	13 (19.1)	19 (16.4)
Separated/divorced	2 (4.2)	1 (1.5)	3 (2.6)
Long-term relationship	7 (14.6)	9 (13.2)	16 (13.8)
Married/common law	32 (66.7)	45 (66.2)	77 (66.4)
Prefer not to answer	1 (2.1)	0 (0.0)	1 (0.8)

Findings

<u>Demographics</u>	<u>Current Ornge Employee n (%).</u>	<u>Other Paramedics n (%).</u>	<u>Combined Data n (%).</u>
Level of Education			
College, CEGEP, certificate/diploma	15 (31.3)	41 (60.3)	56 (48.3)
Undergraduate degree	23 (47.9)	21 (30.9)	44 (37.9)
Postgraduate degree, professional designation	9 (18.8)	6 (8.8)	15 (12.9)
Other	1 (2.1)	0 (0.0)	1 (0.8)
Certificate Designation			
Primary care paramedic (PCP)	3 (6.3)	42 (61.8)	45 (38.8)
Advanced care paramedic - land (ACPI)	3 (6.3)	20 (29.4)	23 (19.8)
Advanced care paramedic - flight (ACPf)	2 (4.2)	2 (2.9)	4 (3.4)
Critical care paramedic (CCP)	30 (62.5)	2 (2.9)	32 (27.6)
Critical care paramedic resident (CCR)	10 (20.8)	2 (2.9)	12 (10.3)
PCP Training Location			
North Region	11 (22.9)	22 (32.4)	33 (28.4)
East Region	3 (6.3)	5 (7.4)	8 (6.9)
Central Region	10 (20.8)	9 (13.2)	19 (16.4)
Toronto Region	11 (22.9)	8 (11.8)	19 (16.4)
West Region	4 (8.3)	13 (19.1)	17 (14.7)
Outside Ontario	5 (10.4)	3 (4.4)	8 (6.9)

<u>Demographics</u>	<u>Current Ornge Employee n (%).</u>	<u>Other Paramedics n (%).</u>	<u>Combined Data n (%).</u>
ACP Training Location			
North Region	15 (31.3)	4 (5.9)	19 (16.4)
East Region	3 (6.3)	0 (0.0)	3 (2.3)
Central Region	10 (20.8)	4 (5.9)	14 (12.1)
Toronto Region	8 (16.7)	9 (13.2)	17 (14.7)
West Region	5 (10.4)	4 (5.9)	9 (7.8)
Outside Ontario	8 (16.7)	1 (1.5)	9 (7.8)
Current Place of Residence			
North Region	20 (41.7)	24 (35.3)	44 (37.9)
East Region	5 (10.4)	5 (7.4)	10 (8.6)
Central Region	10 (20.8)	18 (26.5)	28 (24.1)
Toronto Region	5 (10.4)	8 (11.8)	13 (11.2)
West Region	2 (4.2)	11 (16.2)	13 (11.2)
Years of Active Field Practice			
<1	0 (0.0)	4 (5.8)	5 (4.3)
1-5	2 (4.2)	16 (23.5)	18 (15.6)
6-10	9 (18.8)	23 (33.8)	30 (25.9)
11-15	17 (35.4)	10 (14.7)	27 (23.2)
>15	20 (41.7)	15 (22.1)	35 (30.2)

Findings

<u>Demographics</u>	<u>Current Ornge Employee n (%).</u>	<u>Other Paramedics n (%).</u>	<u>Combined Data n (%).</u>
Are you in a Union?			
Yes	39 (81.3)	44 (64.7)	83 (71.6)
No	2 (4.2)	9 (13.2)	11 (9.5)
Employment Status			
Full Time	35 (72.9)	42 (61.8)	77 (66.4)
Part Time	4 (8.3)	10 (14.7)	15 (12.9)
Casual	1 (2.1)	1 (1.5)	2 (1.7)
Average hours worked per week			
>40	29 (60.4)	41 (60.3)	70 (60.3)
<40	6 (12.5)	9 (13.2)	15 (12.9)
Other	6 (12.5)	3 (4.4)	9 (7.8)
Average Annual Income			
<\$60,000	2 (4.2)	3 (4.4)	5 (4.3)
\$60,000-70,000	0 (0.0)	3 (4.4)	3 (2.6)
\$70,000-\$80,000	0 (0.0)	0 (0.0)	0 (0.0)
\$80,000-\$90,000	0 (0.0)	6 (8.8)	7 (6.0)
\$90,000-\$100,000	2 (4.2)	13 (19.1)	15 (12.9)
>\$100,000	36 (75.0)	25 (36.7)	61 (52.6)
Prefer not to answer	1 (2.1)	2 (2.9)	3 (2.6)

Findings



<u>Demographics</u>	<u>Current Ornge Employee (n (%)).</u>
Years of Active Field Practice with Ornge	
<1	2 (4.2)
1-5	12 (25.0)
6-10	6 (12.5)
11-15	8 (16.7)
>15	13 (27.1)
Base Location	
North Region	26 (54.2)
East Region	4 (8.3)
Central Region	1 (2.1)
Toronto Region	11 (22.9)
West Region	3 (6.3)
Provincial Float	1 (2.1)
Have you worked at a different base previously?	
Yes	32 (66.7)
No	16 (33.3)
Type of Practice	
Land	2 (4.2)
Air	27 (56.3)
Both	10 (20.8)

Facilitators and Barriers for Recruitment and Retention

Community / Place

Connections to communities and places stood out as perhaps the most important factor influencing paramedics' choices to practice and stay in different settings, independent of whether they worked at Ornge. Survey and interview participants frequently noted higher quality of life, social/familial/community connections and support, and established roots in a community. For some participants, even those living in Southern Ontario now, living in Northern Ontario mostly met their expectations, contributing to paramedics wanting to work and stay in that community. Having a positive community and welcoming culture at an Ornge base are important for paramedics, and their families, who are new to Northern Ontario.

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I am able to live in a northern city where I can enjoy northern outdoor activities (downhill skiing in winter, sailing on Lake Superior, camping, fishing in summer) and also enjoy aspects of city life (concerts and festivals, symphony orchestra, university hockey games, etc), my wife grew up here, her parents live here and have helped with child care over the years, I have made strong friendships over the years and am active in a faith community (in my case, a church) that is very supportive of me and my family and where I can find fulfillment and serve and use my talents in a volunteer capacity. (SP100, CCP at Northern Ornge base for more than 10 years)

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Moving to Northern Ontario, short- or long- term, is not feasible for many paramedics who participated in our study, similarly due to personal factors. Relocating to work for Ornge at a Northern base was seen positively and negatively to influence quality of life, cost of living, and family relationships. Yet, with a low volume of eligible paramedics currently living in Northern settings, as well as a lack of ACP training in Northern Ontario, many Ornge paramedics are recruited from outside Northern Ontario, and in some cases, outside of Canada. It was well accepted among Ornge employees and other paramedic participants that many Ornge applicants “bide their time” with Ornge, and accept a Northern base assignment to get a position at Ornge, having no intention to stay long term in these locations. The “rotating door” of new staff members can impact work culture and morale as some Ornge paramedics who currently work in Northern bases feel apprehension and fatigue with the constant onslaught of new paramedics (from outside of Northern Ontario), who never have intention to stay.

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And now Ornge, it used to be you could come into Ornge as a PCP, but now you have to be a minimum advanced care land paramedic to be able to do it, which means we're, again, recruiting from the South and bringing these people up who want to work for Ornge, which is so cool. They'll come do their time in northern Ontario and we become this factory of training new medics and having them leave and training new medics and having them leave. (IP06, CCP at Northern Ornge base)

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Facilitators and Barriers for Recruitment and Retention

Role / Career

Because of Ornge's unique position as the (only) critical care flight paramedic employer in the province, there are overlaps between workplace and career domains, as it relates to recruitment and retention. Throughout the study, Ornge employees shared many positive aspects of their roles and their careers as flight paramedics, influencing their desire to stay with the company and highlighting why others might choose to come to the company. Some of the facilitators of retention at Ornge include professional development opportunities, having an expanded medical scope as an Ornge paramedic, and growth potential. For Northern paramedics, participants appreciated the sense of adventure and contributing to improved patient outcomes and health equity as part of their work.

“It's a lot more diversity, which I think is a big reason paramedics in general like their jobs. And probably something that medics coming to Ornge would look for is that ability to not be doing the same thing day in and day out. Yes, I would say Thunder Bay base in particular, probably the north overall has that diversity to a higher degree than maybe you'd see down south. (IP01, ACP at Northern Ornge base)”

Several Ornge employees highlighted that career inequities experienced by Northern paramedics are further compounded by a lack of access to Ornge professional development opportunities. Not only are most Ornge leadership positions housed in Toronto, but paramedics working at Northern bases might also not be approved for professional development that might create additional staffing shortages.

The occurrence of more low-acuity calls for paramedics at Northern bases was met with frustration by some interview participants, suggesting that some paramedics might be challenged to feel confident with certain clinical procedures without consistently high volume to strengthen or practice their skills (e.g., intubation). Among the paramedics who enjoy the highly specialized medical scope, participants felt that their capabilities weren't being used to the fullest potential. Alternatively, some participants who had worked as Ornge CCPs in Northern settings, leaned into the opportunities of working in low-resource settings, such as being creative in their practice and providing medical leadership.

“So it's burnout from doing lower acuity issues, especially when you come from southern Ontario and that's what all you did for 60% or 70% of your calls. To move and to do all this to go up there and then all sudden you're like, I left my job to do this and I'm not really doing this. I'm doing what I did there. That's its own burnout. Its own mental fatigue... (IP02, CCP at Northern Ornge base for 3 years, recently moved South)”

Facilitators and Barriers for Recruitment and Retention

Role / Career

Although most participants expressed excitement about clinical opportunities and desire to make an impact as a health professional, there were significant challenges that paramedics face in deciding to stay with Ornge and/or in the profession. In particular, participants noted the heavy workload, shift work, unpredictable scheduling, work “logistics”, physical and mental stresses of being a flight paramedic, and the impacts that these have on their families. Most participants agreed that recent workforce shortages have amplified these impacts, because there are greater demands of the existing paramedic workforce while Ornge and other service providers try to fill the gaps. In the interviews, participants described how these stresses, although common across flight paramedics and the broader paramedic workforce, were both acute and chronic for paramedics working at Northern Ornge bases. Participants emphasized that the predominantly “fixed wing work” in Northern settings, as well as constantly revolving paramedic workforce, often those who are not-yet CCP-trained, contributes to their “burnout”* and overall satisfaction with their role and career. Alternatively, PCPs who took part in this study acknowledged that they needed further education to work for Ornge, and many did not feel as though it was worth it, expressing satisfaction in their current role and career.

— “

Being a CCP in the north, you are working with a resident or a brand-new hire 95% of the time because that's the way our system is set up and you're going into a facility where they don't have many resources.... And so as the CCP, you're coming in, you are it. You're the person who everyone looks to.... Or you are person who is most responsible and you're calling the shots and that's a lot. I did that on my first day as a CCP on my own, twice. It was a lot. (IP04, CCP and paramedic practice mentor at Northern Ornge base)

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Now, on the flipside, [Northern base number] is a difficult aircraft to work on full time long term. I've seen it burn a lot of people out and a lot of people's mental health just crumble into shambles working there for many years front line....By the time I left I absolutely hated every single day that I showed up for work. I had pretty much forgotten what it felt like to like my job at all. (IP16, CCP at Northern Ornge bases for more than 10 years)

” —

*The concept of “burnout” will be further explored on page 24.

Facilitators and Barriers for Recruitment and Retention

Workplace / Organizational

Working as a flight paramedic with Ornge was often perceived as the “peak” or “prestigious” paramedic job for many of the interview participants, given the highly specialized skill sets required, the higher compensation packages offered within the company, the visibility and recognition of Ornge paramedics by the health care system, and a lack of comparable opportunities elsewhere. Enhanced professional certification and training for a higher scope of practice at Ornge stood out as a facilitator for recruitment of paramedics to the company. Many participants discussed theirs and others’ desires to progress from a primary care paramedic (PCP) certification to advanced care paramedic (ACP) or critical care paramedic (CCP), which Ornge requires for employment. Given that Ornge is also the sole provider of CCP certification in Ontario, many paramedics who seek additional certifications are directed to Ornge.

“I really enjoyed land ambulance but I saw that pretty much immediately that I would want to progress further at some point in my career. And given that Ornge provided education for us, that was a big draw. So that’s was kind of the right time, right place. I was young. I had no spouse or kids or house that I owned. I was still part time for both of those services. It kind of gave me the freedom that I needed to leave the south and pursue a job with Ornge. (IP16, CCP at Northern Ornge base more than 10 years)

However, the lack of clear training pipelines, in addition to limited and expensive training requirements, create challenges for bringing new paramedics into Ornge, especially in Northern Ontario. For example, among the primarily PCPs interviewed or surveyed, many participants indicated that obtaining the appropriate level training to even apply to Ornge was burdensome. With most ACP training institutions located in Southern Ontario, potential applicants who are personally and professionally established in Northern Ontario would have to relocate for training, pay for the course and relocation out-of-pocket, and without a guaranteed job afterward. On the contrary, if most of the advanced training for paramedicine (and flight paramedicine) occurs in Southern Ontario, the pool of applicants are more likely to have roots closer to where they accessed the training.

“One of the girls that I coach with is a paramedic for the last two years, wants to work for Ornge. Can't do it because she has expenses. She [lives] on her own. Can't afford the full-time program. Can't afford not to be at work. But the further that she goes in a career, the more roots she has, the more opportunities that she has outside of work and you kind of get away from that world of academia where you don't want to go back to school and this is my career. (IP19, CCP at Northern Ornge base for more than 5 years)

Facilitators and Barriers for Recruitment and Retention

Workplace / Organizational

Many participants indicated that job opportunities at Ornge, particularly full-time positions with competitive salaries and benefits packages, is a huge draw to work at the company. Similarly, participants spoke positively about the working environment, the sense of coworker camaraderie at their respective base and inherent organizational trust that the highly trained and skilled employees working to improve patient outcomes.

“I appreciate the more controlled and detail oriented work environment compared to the 911 system and have come to see how that benefits my mental health and home life. I appreciate the still relatively high degree of autonomy as well as the great working relationship and respect from the physicians and other healthcare staff we work with; in 911 I often felt ignored or looked down on. (SP102, CCP at Northern Ornge Base for more than 10 years)

On the contrary, there were negative perceptions of working at Ornge, including perceived lack of transparency* of decision-making by Ornge management, the workplace culture at the organization, and a lack of support and responsiveness for the paramedics and their workload, particularly in the North. Interview participants discussed a lack of transparency about processes and decisions from the pre-application stage (e.g., relocation expectations, nature of work - fixed wing vs rotor, etc) to ongoing staffing circumstances (e.g., workload, swing scheduling, etc). These issues are seen as a deterrent for recruiting new hires to the organization. Some Northwestern Ontario interview participants spoke about negative perceptions of Ornge among paramedics trained locally, suggesting that some educators in municipal paramedic services might discourage new paramedics from Ornge opportunities because of outdated perspectives of the company. Participants who have been with the company for several years clarified that while they were relieved to have researchers investigate Northern paramedic staffing issues, the people working in these settings have been voicing their concerns and offering suggestions for years.

“I really hope that you get some traction with that because, as I have mentioned previously and probably other people have said too, a lot of us have really, really good ideas that don't seem to get much for - they don't tend to want to listen to us sometimes, and I'm not sure if that's animosity towards front-line staff or them just thinking that they have better ideas and they know better... And so what my hope is is that they'll listen to you guys and that they'll take some of the really good ideas and suggestions from the front-line staff and actually try to implement them. (IP16, CCP at Northern Ornge base for more than 10 years)

*The concept of “transparency” will be further explored on page 25.

Facilitators and Barriers for Recruitment and Retention

Workplace / Organizational

The realization of the Ornge paramedic workforce as one entity - reflected both by organizational policies and union priorities - was both noted as a significant barrier to keeping paramedics at Northern bases. The singular understanding ignores the drastically different nature and extent of work that Northern Ornge paramedics lead. In particular, Northern Ornge paramedics work on primarily fixed wing assets which require additional mental and physical capacities, significant impacts on work-life balance (e.g., duty-outs), with characteristically different calls, compared to Southern Ornge paramedics who work primarily on rotor assets. Working conditions for flight paramedics at Northern bases were also described as challenging, significantly worsened with staffing shortages.

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There have been a few who have stayed and had family here and everything but ultimately felt that they had to move because they were burning out with the type of work that we do. So that's another touchstone. I don't feel that the draw of the job is strong enough to hold people in the north compared to the draw of family. But even with the draw of family, the negative sides of the job can bear down on a person sufficiently that even with family here in Thunder Bay, they finally come to the determination that they've got to move to some base in southern Ontario. (IP14, CCP from Northern Ontario at Northern Ornge base for more than 5 years)

— 99 —

Observed in both survey responses among Ornge paramedics and throughout interviews, participants emphasized how different the role of paramedics were between Northern bases compared to Southern bases. We describe in greater detail below how role differences manifest in paramedics' decisions around recruitment and retention. Participants also expressed frustration and fatigue with a lack of recognition and visibility by Ornge and their union regarding Northern paramedics' above-average contributions to Ornge's patient care and overall workload. Many participants described how the unique workload of Northern Ornge paramedics often translated into personal and professional sacrifices (e.g., duty-outs, inability to participate in professional development) that were absent from policies, decisions, and incentives determined by the union and the organization. Some participants felt a lack of appreciation extended beyond the company, also among other members in the health system, which culminates in Northern paramedics asking whether "it's worth it", and also, whether paramedics would want to join a team in these circumstances.

— 66 —

They [Northern and rural patients] have the same right as you or I do to walk to a walk-in clinic to see a doctor. They don't have that. We are their transportation to that walk-in ER clinic. So I think Ornge also ... that's not sexy. What they sell is landing on a highway, intubated patients. You will use your CCP skill set every single day and then you come up here and you might not see a vent. (IP19, CCP at Northern Ornge base for more than 5 years)

— 99 —

Recommendations for Recruitment and Retention

Plan

Community / Place:

- Invest in long-term solutions to promote a positive work culture at Northern bases for those committed to these areas.

Role / Career:

- Recognize the unique roles of Northern Ornge paramedics, including workload, service population and involvement in education, in organizational policies, decision-making, and respective incentives.

Workplace / Organizational:

- Build training pipelines for paramedics in Northern Ontario, from PCP to CCP.
- Increase funding options for trainees who must relocate from Northern Ontario to acquire advanced certifications.
- Consider factors in addition to medical competencies when hiring for Northern bases (e.g., sense of adventure, dealing with ambiguity, creative solutions in low resource situations) - are recruitment campaigns targeting the right people?

“It's been six years and nothing's been done...So it's like, they say, "We want to make this better. We want to make this work." And all I can see is it's all going to be fly in, fly out. That is the solution that they've determined. Sioux Lookout's going to do it. Moosonee's going to do it. And slowly as bases keep falling or cracking or falling apart, it's going to go to fly in, fly out. Instead of the other option, which would be to train from base to op... (IP11, CCP at Northern Ornge base)

“But from the bargaining side of things, when I have two southern Ontario representatives against one northern, it's two-to-one voting all the time. The president has to stay neutral. The southern Ontario guy says well, if you get something, then we want something. Can't give it always to the north, right? And I'm like well, let's go health equity, let's go where the shortages are. Let's try to throw some extra money to the north here. Let's give another week of vacation for the first five years to people that come up here from southern Ontario so that they can go down to southern Ontario. Let's try to, if you stay in the north, you get your vacation equivalent of like, if you had 10-year land, you would fall into Ornge's vacation of 10-year land...Or an extra per diem or an extra you're working on fixed wing where everybody leaves fixed wing because you're like OK, every day you work fixed wing you get an extra 100 bucks or something. (IP19, CCP at Northern Ornge base for more than 10 years)

“Training somebody from here. One of our rotor pilot's daughters lives here. Her parents live here, her dad and mom live here. Her dad's not going anywhere and her mom's not going anywhere. Her mom and her are tied together at the hip. She's a PCP. I bet you if we trained her from PCP to CCP, she's 19 years old, 20 years old. We would have her until the end of her career, probably in Thunder Bay. (IP05, CCP and educator at Northern Ornge base)

Recommendations for Recruitment and Retention

Recruit

Community / Place:

- Engage with local communities and health system partners to involve them in developing recruitment strategies, as well as utilizing local medics to participate in recruitment initiatives to leverage local networking in the recruitment process.
- Examine strategies to address the unique spousal and family impacts for shift workers in Northern and rural settings: access to child care, access to primary care, family supports, and help finding spousal job opportunities.

Role / Career:

- Ornge should increase its recruitment efforts, starting early in paramedic education, within Northern rural and remote communities.
- Ornge should consider increasing the number of float positions and travel support to Northern bases while acknowledging this is a “band-aid” solution that does not address the retention issues in the North long term.

Workplace / Organizational:

- Invest in supports for relocation and community integration for “new to the North” Ornge staff.
- Increase transparency in the application process: communicating opportunities for positions early, feedback to unsuccessful candidates, publicly available criteria for applicant success.
- Make visible the unique role and contributions of the Northern paramedic workforce.

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Depending on how you're trying to recruit and who you're trying to recruit, you're not just recruiting that person, you're recruiting their spouse and their family. So if you totally neglect the spouse and the family in the recruitment or in how you recruit the individual, you will lose that individual very quickly. Because that individual will say that their family is more important than being in Thunder Bay or Kenora or wherever. (P02, CCP at Northern Ornge base for 3 years, recently moved South)

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I know, now that the college in Thunder Bay is running programs, we've sponsored a, what is it, a bursary for PCPs to do the ACP land program. So Ornge is specifically sponsoring some of those people...So over the last year and a half, there's probably five medics from SNEMS who might be coming over. Yes. So I think if they continue to do that, but if they broaden the range of people they could draw from. Like PCPs, the company, I get the company doesn't want them, because it is a very long process to go from PCP to CCP. And that kind of hinders their matrix and level of care. But in the northern communities, that might be one of the best ways to get people who will stay. (IP21, CCP at Northern Ornge base)

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People have to have a sense of community. So if you're coming up here, like if you're leaving your family, everything you've known, grown up with from somewhere else in the province, and you come up here and you never feel that sense of belonging, that sense of a family, of having your village, then you're probably not going to stay, right? So one of the things they had suggested in a couple of them was mentoring some of these people that come in. (IP06, CCP at Northern Ornge base)

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Recommendations for Recruitment and Retention



Retain

Community / Place:

- Recruit people from Northern, rural and remote communities who have roots in these areas will increase likelihood of them staying, and promote a cultural/contextual relevance of service delivery.
- Examine opportunities to leverage the expansive skillset of Ornge CCPs as clinical leaders in the broader health system (example: Operation Remote Immunity during the pandemic) and ensure equitable access of these opportunities throughout the organization, specifically in the North.

Role / Career:

- Create professional development pathways and career trajectories only available to Northern paramedics.

Workplace / Organizational:

- Recognize and incentivize the unique, significant contributions of the Northern paramedic workforce, for example, through compensation packages, vacation time and seniority that consider time worked at a Northern base.
- Workforce development activities should find a balance between long-term thinking and immediate responsiveness. These activities should be regularly monitored and evaluated, with clear accountabilities tied to the findings.

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I was still very excited about becoming a critical care flight paramedic. By then I was around 28 and I was excited to pursue this. My dreams that I had as a teenager and in my early 20s were still with me. And then worked for Thunder Airlines for a few years and then in 2005 got onto the [helicopter]. And so that was my progress as a northern boy. I married a girl from Thunder Bay here and we have raised our family here. And so I guess I'm sort of the prototypical example of the kind of person that Ornge wants to hire to stay in the north. (IP14, CCP from Northern Ontario at Northern Ornge base for more than 10 years)

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So I want to go to a conference, I got to pay Friday and Saturday, maybe Sunday night hotels where [Southern medic] can just drive there. So education opportunities are a little bit easier down south. Plus, if you want to do a master's program or go on, work in the helicopter and the trucks, you're in base a lot more and you can have more opportunity to study. Watch guys up here and they say they're working on extracurricular endeavors was very hard. They work a lot of time on their days off where a lot of them down south don't work on their days off because they get paid to do their degrees or master's because they're not on an aircraft for six hours a day. (IP19, CCP at Northern Ornge base for more than 5 years)

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And so when you're resource limited, and this is again, it's not conducive to family living...And it would be OK if there was an empathy to that, or we're going to help you. We recognize that it's hard on your family. We're going to offer you supports, whether that's financial, right? To allow for the cost of extended childcare or last-minute emergencies, right? I think, unfortunately, it's a feeling of being devalued as a human, as an employee. And it is a very separate organization in southern Ontario versus [northern] Ontario. It is almost two different companies. (IP18, CCP in North, recently moved to Southern Ornge base)

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Recommendation Deep Dive: Burnout

Understanding “burnout” as “fatigue”

- “Burnout” is often perceived to be related to mental health injury in paramedicine.
- When describing “burnout”, participants referred to a **cumulative fatigue** (“heavy load”) resulting from understaffing, time away from families and communities, demanding schedules and calls, a revolving door of new trainees, and difficult clinical experiences.
- This “burnout” was explicitly linked to low morale and a challenging work culture.
- Fatigue therefore encompasses multiple specific concepts including “burnout”, “moral injury”, “emotional expense”, and “compassion fatigue”.



Main factors contributing to “fatigue” at Northern Ornge Bases:

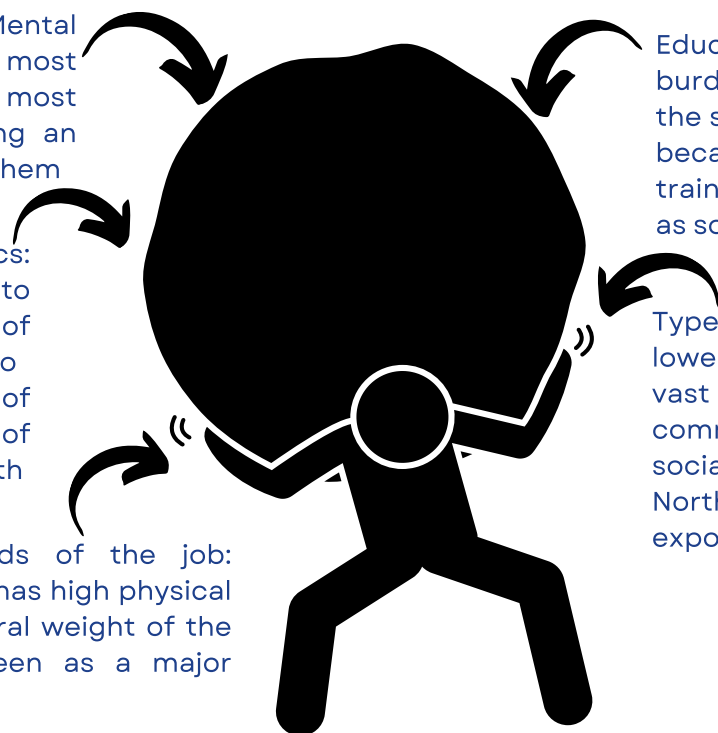
Northern senior medics: Mental toll of always being the most senior person, the one with most responsibility and not having an equally trained partner with them

Northern senior medics: The emotional toll due to continuous loss of community/friendships/social networks as a result of the “revolving door” of medics from north to south

Physical demands of the job: Fixed wing work has high physical demand, the literal weight of the equipment is seen as a major burden

Educators/Preceptors: Emotional burden felt by always “training for the south” (ie. people come north because they have to do their training, and then go back south as soon as they can)

Types of calls: Emotional toll of lower acuity calls, witnessing vast health disparities in communities served, and social/cultural issues that Northern medics are constantly exposed to



Thunder Bay is different because it's long hours, you might get home, you might not. There is a lot of variables... the works hard. It's long, it's austere environments... when you get burnt out like me, like older and burned out that you're like, I don't care if I do 14 walk-ons today because to be honest, it's easier. It's less thinking, less chance of burning out, less chance of putting another rock in your backpack. You know what I mean? It's just another thing. And so the rock in the backpack thing is I always rock in the backpack or whatever. So, you only have so many rocks before the straps break ... and then you're off. (IP05, Senior CCP and educator at Northern Ornge base)

Being a CCP in the north, you are working with a resident or a brand-new hire 95% of the time because that's the way our system is set up and you're going into a facility where they don't have many resources...the staff and the facility don't have that inherent comfort in managing this on their own. And so as the CCP, you're coming in, you are it. You're the person who everyone looks to...Or you are person who is most responsible and you're calling the shots and that's a lot. I did that on my first day as a CCP on my own, twice. It was a lot. (IP04, CCP and paramedic practice mentor at Northern Ornge base)

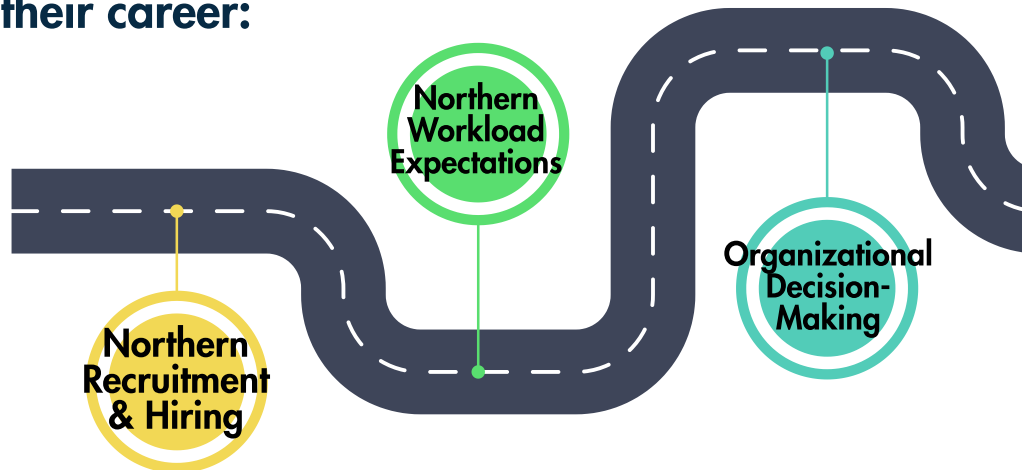
...Here in the north, you're flying a patient from Pikangikum to Thunder Bay who's been on a three-week drinking bender, has finally run out of alcohol and are now going into withdrawal symptoms, starting to have seizures.... They get the care they need ... and then a few months later you're moving the same patient again in the same cycle of ongoing trauma ... after a while a lot of flight paramedics just become very fatigued. They develop compassion fatigue and vicarious trauma and the PTSD aspect of it ... And ultimately, often the person either leaves the industry entirely or moves to a different base. (IP14, CCP at Northern Ornge base for more than 5 years)

We have so many new people that are coming in and know that they're leaving. They don't really, you don't get, like when we were growing up with [colleagues] and everybody, we were friends because we thought we were staying here. It was party time. And we don't have that same kind of camaraderie anymore because there's so many people that are just new and they know that they're going back to southern Ontario, they don't really care. (IP19, CCP at Northern Ornge base for more than 5 years)

And the downside of the fixed wing is that your whole kit doesn't move with you...It's a lot of logistics and a lot of lugging in the fixer. Yeah. I think it's 196 pounds if we have a tubed and vented patient with all the equipment we need. The bags and the vent bag and the wet bag for the vent with the humidifier circuit and that kind of thing. There's two bags, big backpacks. Then there's the med bag and then there's the airway bag and then there's the eye stat bag and then there's the pump bag and then there's the number nine stretcher ... All of it. Yeah. We lug it in and then we lug it out. (IP12, ACP at Northern Ornge Base)

Recommendation Deep Dive: Transparency

For participants, transparency means different things throughout their career:



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And so how do we make this work is I think, first off, we need to be more honest and transparent, right? This is what working for us looks like not hiding it. And then having people be surprised by it. Because you know what? I would rather someone not apply to the job with full transparency, right? And either quit, like Thunder Bay is famous for having people quit. Like three people when I was up there quit. These are people that have made sacrifices. And so how do we fix it? We start with honesty. We start telling people what it's like. (IP18, CCP in North, recently moved to Southern Ornge base)

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So we have like a triage and dispatch meeting where if you don't agree with the way something was on a duty out and maybe shouldn't have went or whatever. You can kind of flag it, and they'll look at it ... one thing I really brought up from that was like, just a phone call. Like if I'm going to duty out tonight, just a phone call from that doctor that made the decision ... And it's resonated with a few of them, kind of the higher ups on the medical committee side that do those consults, they'll make the phone calls... But again, I kind of voiced that I was like, can they all do that? Just a quick phone call, "Sorry this is this way, guys. Thank you so much for doing this." Because I think it would go a long way. (IP10, ACP at Northern Ornge base)

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I have a hard time thinking that, even though we have great conversation here, I don't know how receptive they will actually be. You know what I mean? Like we have these conversations, we talk to people in management about it. They 100 per cent agree with everything I'm saying. And it's been six years and nothing's been done. (IP11, CCP at Northern Ornge base)

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Nobody looks at the system-based issues. If you go through and look at any of the incident reports and they look at the hazard reporting system they have, there are categories for how this works. These categories are organizational factors. These are environmental factors. These are individual factors. You go through any of those incident reports and you will find an exorbitant number of individual factors ... how many organizational factors come up in any of those reports ... you don't really have a just culture that's interested in examining the system. You have a non-punitive culture where I don't punish you for making a mistake but I still blame you and I don't look at the things that contribute to that incident. So that is not being supportive of the paramedic. (IP03, CCP in GTA from the North)

Clearly defining job opportunities in northern recruitment & hiring:

- Prospective employees commented on lack of transparency in application and hiring process (unclear characteristics of successful applicants, not communicating opportunities early, or not commenting on areas of improvement).
- Participants talked about feeling they were not given full transparency about the role of Northern Ornge paramedics (working conditions, types of calls and expectations of medics).

Clearly defining northern workload expectations and decision making protocols:

- Northern Ornge employees felt the lack of transparency around necessity of certain calls and reasons for overtime calls and duty outs is lacking.
- Participants highlighted the importance of honest and direct communication from “higher ups” around why a call is being prioritized or why Ornge medics are being sent in the first place.

Clearly incorporating employee ideas and feedback into organizational decision-making:

- Participants expressed concerns that they have raised issues to upper management before, with no visible action.
- Was a sense of hope this study and its recommendations will be taken into consideration and translated into action.

Recommendation:

- Ornge has processes in place for communication with employees, both current and prospective, such as Town Halls, AMRM, weekly briefings, committees (i.e., TADRAG), etc. However, our findings suggest that Ornge paramedics may not be accessing these resources or valuing the messages they are receiving. There is a clear gap between the transparency pathways available, communication from management, and reception from employees.
- **Future work should examine how and to what extent the communication channels are effectively getting the messages across, and consider multiple opportunities to share knowledge.**

Recommendations for Recruitment and Retention

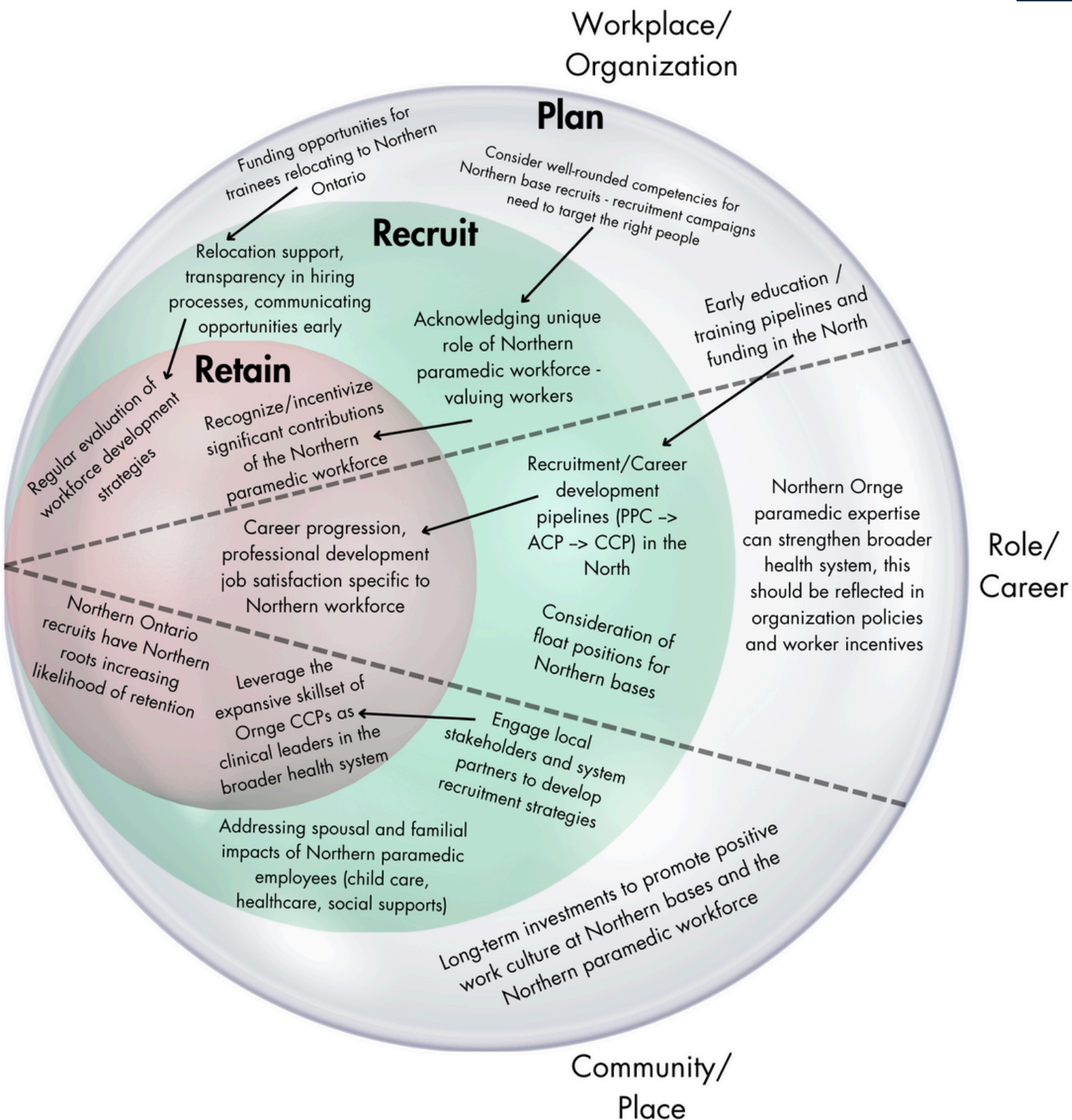


Figure 1. Recommendations to strengthen recruitment and retention strategies of flight paramedics, in Northern Ontario using the Whole of Person and “Plan, Recruit, Retain” Frameworks.

Interpretation

In this partnered study, a team of researchers and Ornge clinical education leaders used surveys and interviews to understand opportunities and challenges for recruiting and retaining the flight paramedic workforce in Northern and rural settings. Our recommendations suggest ways that Ornge could strengthen the paramedic workforce in Ontario by transforming how flight paramedics are trained, recruited, and then leveraged long term. Notably, many of these recommendations are not for Ornge to act on alone, but rather to work with system partners - local, provincial, and national - to co-create high quality care systems that address the diverse health and care needs across the province. Ornge is seen as a leader, provincially and nationally, in healthcare, and presented is an opportunity to lead innovative initiatives within paramedic workforce development to drive change and impact health equity in the North.

In this study, we heard from a diverse group of paramedics across the province, most of whom work or have worked as flight paramedics in Northern Ontario. Two evidence-informed frameworks were used to understand how paramedics' experiences can inform Northern and rural flight paramedic workforce strategy (i.e., "Plan, Recruit, Retain") using a person-centered approach (i.e., "Workplace/Organization, Role/Career, Community/Place"). Across ages, levels of experience, certifications, and current practice settings, the same insights stood out:

- 1. The North is different - the nature and extent of the workload and the impacts of the schedule on the paramedics and their families.**
- 2. Train in the North - connection to place and community are important across the education and career trajectories of flight paramedics.**
- 3. Long-term transformation is a priority despite short-term urgencies and band-aid solutions.**

This study and its findings come at a pivotal time for flight paramedics, and the broader health workforce who struggle with shortages and increasing patient demands and complexity. Our findings are not surprising - they align with what we know about recruiting and retaining high quality health professionals in rural settings (15). This work amplifies the experiences of the paramedics - specifically Ornge paramedics- who have voiced their ideas and concerns for years. Though many participants spoke about the challenges they face, we observed a confidence and optimism that Ornge is ready to transform Northern and rural flight paramedicine; that they are motivated to improve patient access and outcomes by prioritizing staff well-being and workforce stability.

Our Recommendations offer specific ways to shift away from urban-centric models of workforce development to include those that honour Northern and rural contexts. From different contracts and incentives, to building training programs in and with Northern and rural communities, to exploring ways to leverage flight paramedics in the broader health system, investing in Northern and rural health workforces and communities is both a short- and long-term solution. Ornge is a leader provincially and nationally in aeromedical transport: by investing in the health workforce and health systems that have historically been underfunded and undervalued, Ornge can improve the well-being of their staff, the productivity of the organization, and health outcomes for the people they serve.

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