ORIGINAL ARTICLE

Results of a mixed-methods study on barriers to physician recruitment in Newfoundland and Labrador

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Abstract

Background: Like many rural and remote parts of Canada, the province of Newfoundland and Labrador (NL) struggles to maintain a skilled healthcare workforce. As many as 20% of people in the province are thought to be without a primary care physician. The purpose of this study was to determine the barriers recent Memorial University of Newfoundland medical alumni have faced in establishing medical practice in NL.

Methods: An online survey followed by question-standardised focus group sessions.

Results: Two hundred and ninety-one physicians who graduated from Memorial University of Newfoundland medical school between the years of 2003 and 2018 completed the survey. Nearly 80% of respondents recalled that NL was their preferred practice location at some point during training: 79.4% (n = 231) at the beginning of medical school and 77.7% (n = 226) at the beginning of residency training. However, at the time of the survey, only 160 (55.0%) respondents were working in NL. Respondents reported significant cultural and systemic barriers in trying to work in NL, including ineffective recruitment offices, lack of transparency in communication with health authorities, inequitable distribution of resources and workloads, lack of appropriate resources to support new positions, and return-of-service agreements that are not honoured or followed-up.

Conclusion: Our study outlines a number of ways in which recruitment and retention could be improved, ultimately improving provincial health care and helping to fulfil the mandate of the medical school.

Keywords: Canada, medical education, Newfoundland and Labrador, physician, recruitment, remote, retention, rural

Résumé

Contexte: Comme de nombreuses régions rurales et isolées du Canada, la province de Terre-Neuve-et-Labrador (T.-N.-L.) a du mal à maintenir une main-d'œuvre qualifiée dans le domaine de la santé. On estime que 20% des habitants de la province n'ont pas de médecin de premier recours. L'objectif de cette étude était de

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déterminer les obstacles auxquels les anciens étudiants en médecine de l'Université Memorial de Terre-Neuve ont été confrontés lors de l'établissement d'une pratique médicale à Terre-Neuve-et-Labrador.
Méthodes: Une enquête en ligne suivie de sessions de groupes de discussion normalisées par des questions.
Résultats: 291 médecins diplômés de l'école de médecine de MUN entre 2003 et 2018 ont répondu à l'enquête. Près de 80% des répondants SE sont souvenus que Terre-Neuve était leur lieu d'exercice préféré à un moment donné de leur formation: 79,4% (*n* = 231) au début de leurs études de médecine et 77,7% (*n* = 226) au début de leur formation en résidence. Cependant, au moment de l'enquête, seuls 160 (55,0%) répondants travaillaient à T.-N.-L. Les répondants ont fait état d'obstacles culturels et systémiques importants lorsqu'ils ont tenté de travailler à T.-N.-L., notamment l'inefficacité des bureaux de recrutement, le manque de transparence dans la communication avec les autorités sanitaires, la répartition inéquitable des ressources et des charges de travail, le manque de ressources appropriées pour soutenir les nouveaux postes, et les accords de retour de service qui ne sont pas respectés ou qui ne font pas l'objet d'un suivi.
Conclusion: Notre étude présente un certain nombre de moyens d'améliorer le recrutement et la fidélisation, ce qui permettrait en fin de compte d'améliorer les soins de santé provinciaux et d'aider à remplir le mandat de la faculté de médecine.

Mots-clés: Médecin, recrutement, rétention, éducation médicale, Canada, Terre-Neuve-et-Labrador, rural, éloigné

INTRODUCTION

Maintaining a skilled healthcare workforce is a challenge for all rural and remote parts of the world.[1-5] Newfoundland and Labrador (NL) is a province of just over half a million people on Canada's Atlantic Coast, where weather and transportation issues make the area functionally more remote than might be suggested by the geographic location. Residents are about evenly split between the urban and rural areas. The population is ageing[6] and has among the highest incidence of multimorbidity in Canada.[7,8] In 2019, a poll conducted for the NL Medical Association (NLMA) showed that more than 90,000 residents were without a family doctor[9] while recruitment of family doctors trained at the province's only medical school, Memorial University of Newfoundland (MUN), had fallen by nearly 50%.

Training physicians to serve the province's population has remained a central goal of the province's medical school since its inception in 1967; however, recruitment and retention problems are growing. Previous work has shown low rates of specialist retention, with roughly half of newly recruited specialists leaving practice in NL after 4 years.[10] A 2014 analysis of work locations of physicians who graduated from MUN between 1973 and 2008 found that while nearly 90% of alumni were working in Canada, only about one-third were working in NL.[11] Research published in 2019 showed that compared to the national average, annual gross clinical payments per full-time equivalent physician in NL were approximately $40,000, $17,000 and $37,000 less for family doctors, medical specialists and surgical specialists, respectively; pay discrepancies were much wider when compared to top-earning physicians in the prairie provinces and Quebec.[12] During a MUN Faculty of Medicine retreat in 2021, other perceived barriers included workload, lack of support and social issues (housing problems, lack of amenities and lack of community inclusion) and a shortage of rural applicants.[13]

While residents suffer poor access to care due in large part to these and other retention issues, little scholarly work has been done on the more upstream issue of recruitment. As in other provinces and territories, physicians looking for information on job opportunities in NL are directed to a provincial website that provides a list of current openings, along with job descriptions (www.practicenl.ca/). However, the authors were aware of anecdotal reports of interested MUN medical graduates still unable to secure employment. Therefore, the purpose of this study was to survey recent MUN medical school graduates to ask them about their practice intentions and to determine the barriers they may have faced in establishing medical practice in NL While the results are specific to one province, we believe our findings have relevance for other regions facing similar recruitment challenges.

METHODS

This study employed mixed methods. We wanted to survey MUN medical alumni who had graduated recently enough to recall accurately their path to practice, but long enough ago to be nearing completion of residency training and to have begun their job search. We therefore settled on a time period of 2003–2018. A list of alumni was not available from the university or the College of Physicians and Surgeons of NL, so we recruited through social media and snowball sampling. We estimated our target sample at approximately 900 alumni because over that 15-year period, the MUN medical class size had remained stable at around 60 students per year. Three authors (MF, GF and AOK) co-wrote a 25-item survey with opportunities for free-text responses. We performed brief face and content validation by sending the initial draft of the survey to five alumni in the target years and asked them to point out any problematic questions or suggest additional questions. No changes were suggested. We posted a link to the on-line survey to social media (Facebook and Twitter); the survey was live from 9 to 30 September, 2021. Quantitative responses were analysed with simple statistics.

The Health Research Ethics Authority considered our study exempt from review, viewing it as a quality improvement study.

Respondents who completed the survey were asked if they were also interested in participating in a focus group session to elaborate on their personal experiences with the recruitment process. So as not to unduly influence conversations or interpretations, a fourth (non-physician) author (NF) and an assistant were asked to conduct the focus groups and analyse the responses. Standardised questions for the focus groups were generated from answers received to open-ended survey questions. Focus groups were held remotely over Webex between 16th November and 2nd December, 2021 and were recorded and closed captioned to text by the application. Respondents received no compensation for participation. Text files were inspected to remove potentially identifiable comments and add anonymous respondent identifiers. Because no established theory existed to direct the qualitative inquiry, we used conventional content analysis and generated codes from the transcripts in a naturalistic fashion.[14] Qualitative survey responses were then re-inspected with these codes in mind to generate several themes.

RESULTS

Quantitative results

Our survey was answered by 291 of an estimated 900 possible alumni who graduated between the years 2003 and 2018. There was a distributed and even spread of graduates between 2006 and 2018, with a slight underrepresentation from 2003 to 2005; each class year was represented by 4–30 respondents. Most (181/294) completed residency at the MUN medical school in addition to undergraduate medical training at MUN. Just over 40% of respondents (125/291) were family doctors. Approximately half (139/294) were currently practising as fee-for-service providers while 21% (n = 62) of respondents were salaried, with the rest on alternative or blended remuneration models.

Most (261/291) had a life partner and approximately one in five (64/291) had a life partner who was also a practising physician. About half (148/291) had dependents. While 51 indicated they were specifically not working within NL because of a lack of employment opportunity for themselves, an additional 34 indicated they were not working in the province due to the lack of opportunities for their life partner or other family members.

Return-of-service (RoS) contracts were common: 112 physicians (38.5%) had signed such contracts and an additional 27 (9.3%) said they had attempted to access the program without success. The average compensation received was $50,000, ranging from $5,000 to $158,000.

Most respondents entered MUN training programs intending to practise within NL: 79.4% (231/291) recalled at the beginning of medical school wanting to work in NL after graduation and 77.1% (227/291) at the beginning of residency training. Fifteen per cent (45/291) indicated that NL was not preferred and they were open to working anywhere. Only 4% (12/291) specifically planned to work elsewhere during their undergraduate training. At the time of the survey, approximately one in three physicians who had intended to work in NL had not established

a local practice, with only 160 (55.0%) working in the province. Of the 234 people who had indicated that practising in NL was their intention at some point during their medical training, only 160 were at the time of the survey. This represents 74 physicians lost to the province.

Furthermore, our entire study period covered 15 years, but when we examined our data in 5-year increments, an interesting trend emerged: of those who graduated between 2003 and 2007, 29/40 (72.5%) were working in NL, whereas only 59/101 (58.4%) and 62/134 (46.3%) of graduates between 2008–2012 and 2013–2018, respectively. Thus, more recent graduates were less likely to be working in the province than people who graduated earlier.

Qualitative results

Of our 291 respondents, 170 volunteered to participate in a focus group and 18 eventually did so. Focus group discussions documented an additional circa 8 h of dialogue. Discussions were lively, and therefore, the transcripts were at times disjointed; however, they did allow NF to re-inspect qualitative responses from the survey data and arrive at the following themes through conventional content analysis. Of the 14 survey respondents and focus group participants who were quoted, 7 identified as specialists (5 worked in NL), 3 identified as family doctors (2 worked in NL) and 4 did not provide practice details.

Theme 1: Physicians experienced a systematic lack of recruitment that left regional recruitment offices ineffective

While some classes/cohorts had attended generic presentations promoting working within NL, participants shared that other provinces went much farther, proactively offering detailed contracts and streamlining practice-building supports to offer trainees early in their residency and fellowships. Most trainees already wanted to work within the province upon completion and did not need to be convinced through general promotion. What they required was certainty through contracts or assured supports and opportunities.

> NL didn't recruit, (it) just (assumed) people will want to stay, despite the many barriers. (…) We were actively recruited by two (other) places. (…) In NL, I felt like I was begging for a position. And once you leave and establish your family in another province, it's very hard to move back. (SR266; specialist working outside of NL)

Participants expressed frustration with the ineffectiveness of existing recruitment offices. Regional offices were unable to address standard recruitment needs, such as helping with spousal employment and matching personal health or family needs to appropriate community supports.

> At the end of second year residency I knew (….) I wanted to stay home and I had sent an E-mail to whoever did recruitment (…) basically pleading for some information about how I could get a job (…) and I think (they) E-mailed me back about 3 months later with a link to the NLpractice website that had the job listings (…) So, this was absolutely useless and it's kind of offensive to be honest. (VFG6C; practice details not provided)

Respondents indicated that recruitment offices could not negotiate terms of employment or deliver contracts. Those who found positions often did so without the help of recruitment offices and instead negotiated directly with heads of departments, clinical chiefs or administrators who had the authority to release funds and resources.

> While I signed a return-for-service and intended to return, I received no information about the job I would be coming home to. Eventually, the other offers of recruitment (from other provinces) with clear terms and great salaries won out. (SR41; specialist working outside of NL)

Many new physicians were expected to turn down detailed contracts with other health authorities, relocate across communities or provinces and show up to work in NL with no written contract granting them any assurances of employment or clarifying expected duties and compensations.

Theme 2: New physicians routinely encountered barriers to effective employment

Participants who did set up practice in NL reported the lack of transparency in fee-for-service billing schedules and on-call expectations. They expressed strong negative feelings of exploitation and disrespect.

> As a 100% community-based specialist I'm treated rather like a pariah because I'm outside the hospital. I think about quitting every single day. Every day. (SR269; specialist working in NL)

Many practices face significant start-up costs or are limited by critical infrastructure. Participants expressed frustration that plans to address physician shortages rarely addressed the underlying infrastructure needs to support additional practices. Participants describe a system wherein new positions rarely received appropriate resources, infrastructure, or supports.

> I worked hard, figured out [how to bill on] my own, looked around and finally set up my own practice. (…) There was literally no help from anyone, nor was there any government contact to follow up on my experiences or to talk about retention. (SR127; family doctor working in NL)

Participants described under-resourced and understaffed practice groups struggling with retention due to burnout. Although some clinicians reported multi-year patient waitlists, health administrators told physicians their levels of staffing and resources were appropriate, and that it was not up to the authority to decide where fee-for-service physicians should practise. Furthermore, participants with sub-speciality training in emerging fields of care found fee schedules in NL significantly behind other regions and to some, who were promised salaried positions, it proved fictitious.

> I returned to NL under the impression that there would be a salary position available for me [but] upon my arrival back to NL, I was told a salary position was not available and to set up practice as a fee-for-service sub-specialist physician in the community. I was granted only limited physical space in a hospital setting with no resources or support to establish my practice. (SR275; specialist working in NL)

Physicians attempting to provide locums also encountered a lack of centralised planning and coordination leading to significant administrative and communication barriers. They reported not knowing who to contact or how to advertise themselves to the right people. Overlapping regional approval processes limited participants' ability to easily transition to where they were needed. Participants said these barriers contributed to burnout among those who could not arrange coverage and led to an increased sense of professional isolation. Locums gave interested physicians a chance to preview working in various communities; however, a negative locum experience with barriers and a lack of support only reinforced a perception that no support or resources would be available in rural and remote practices.

Theme 3: Resources and workloads are inequitably distributed

Some physicians who started practices in NL expressed concern that the decentralised recruitment system leaves those with the most to benefit from the way things are with considerable influence and little oversight. Participants described some practice groups with onerous on-call expectations for new recruits while senior physicians were exempt from such obligations, but maintained access to resources for billable private practice.

Participants identified other provinces where equitable on-call distribution was ensured and provided more appealing working conditions for new recruits. Some participants felt that a system that treats physicians as independent contractors also needs to understand how resource inequity within specialties affects the ability of new recruits to establish a practice.

> Not having the financial resources to hire more colleagues to equitably share the burden of call to a degree that would make actually continuing practice (…) sustainable for anybody. (….) I would have loved to have had the opportunity of some other sort of removed oversight, either person or committee (….) because I think there are a lot of issues that are going formally unrecognized. (VFG1D; practice details not provided)

Theme 4: Return-of-service agreements are not aligned with recruitment efforts

Nearly 40% (n = 113) of physicians who responded to our survey had received funds through the RoS programme, but all said the programme did not match them to a position to help honour their agreement. Instead, some felt they had to fight for the opportunity to fulfill their obligation. An

additional 27 physicians (9.2%) indicated that they sought out information for the programme but received no reply or were told no funds were available. Many participants noted the value was taxed at source and felt the programme was misrepresented as an untaxed training bursary or scholarship. Those who broke their contract were required to repay the full, pre-tax value. To come back to NL, they were expected to decline the certainty of firm offers elsewhere and return home with no firm employment arrangements.

> I remember feeling like (signing a RoS contract) was a mistake, like I was trapped, I could not afford to buy it out if needed and I felt like a serf.(SR269; specialist working in NL)

None of our participants recalled follow-up communications regarding their RoS contract, whether they had returned service or not. Most believed they had fulfilled their obligations but those still working in the province received no confirmation that their contract was satisfied. Some were unable to find positions that would allow them to honour their agreement, and others accepted external contracts with no follow-up from the programme. This stands in contrast to their experiences elsewhere where host locations actively recruit early in training and offer detailed contracts matched to permanent positions, or start-up private practice supports with enough incentives to cover the penalties of breaking RoS obligations.

> I had to ask for my RoS and it still hasn't been paid. In fact, according to my contract, my relocation (costs were) to be paid within 30 days, and it has been 3 months without any payment. (SR244; family doctor working in NL)

Other participants in the RoS program were paid large bonuses upfront, only to have the RoS contract cancelled before they even returned.

> $50,000 upon local job offer during PGY3. Funding fulfilled. Job offer revoked 3 months prior to finishing (…) fellowship [and] official reason supplied [by] Eastern Health was lack of clinical need. (…) No payback required due to Eastern Health canceling contract. (SR209; specialist working in NL)

Many participants experienced frustration and disappointment that the RoS programme did not deliver the one critical feature they thought they were arranging: a presumed commitment that the province wanted them as a physician.

DISCUSSION

Our results show that most students who entered training in NL's only medical school between 2003 and 2018 were motivated to work in the province, but just under half left shortly after graduation. Common narratives and proposed strategic priorities for the province[13] often suggest that compensation remains the foremost barrier; however, this broad account of recent graduates suggests they encountered significant systemic challenges to setting up a practice and/or securing employment. Those who had left generally felt they had no opportunities in NL. Many who remained described needing to fight for every foothold. Our respondents experienced other issues previously elaborated in the literature, including total compensation that lags behind other provinces and multiple barriers to continuing practice spanning personal, family, and community considerations, as well as professional fulfillment, isolation and workload.[2-4,9,15] Our results are not novel in that sense.

What our study does show are the mechanisms by which individual medical graduates were lost to the province. Furthermore, it shows the human cost and recent magnitude of the problem: those surveyed expressed deep professional and personal frustration, accompanied by feelings of burnout and mistrust. Each physician who leaves the province represents an opportunity cost to patient care. It is also apparent that MUN medical alumni do not use the school merely as a means to an end. They remain a ready and willing workforce, as indicated by their pre-training practice intentions. However, in the face of extensive systemic barriers, they are easily drawn away to other jurisdictions that offer real opportunities to apply their training and establish their family lives. Individual practice intention falters in the face of systemic problems.

An international partnership of scholars, healthcare workers and administrators recently outlined nine essential steps in the maintenance of a robust rural healthcare workforce,[1] all of which focus on issues at the level of the community and above: review of population service needs,

review of service model, review of target recruits, emphasise information sharing, community engagement, supporting families and spouses, supporting team cohesion, relevant professional development and training of future professionals. Experiences shared by our respondents suggest that health authorities in NL have not consistently done these things. We suggest the province and health authorities take on an active and coordinated role in physician recruitment in NL that could be improved by performing a workforce needs assessment. This could inform an overarching human resourcing plan and signal to medical trainees wanting to stay in the province which specialities are likely to be in demand at the time of their graduation. It could also work on local employment opportunities for partners of physicians to establish equitable access to healthcare resources for new recruits and to proactively seek negotiations with potential candidates much earlier in their training programmes, with detailed contract offers in hand. The implication is that without major changes to the way physicians are recruited and retained, the current care crisis in NL (6, 9) only stands to worsen.

Our study was limited mainly in its recruitment methods. Unfortunately, because no up-to-date list of alumni had been maintained by the university or the medical licensing body, we needed to recruit through social media and snowball sampling efforts. Therefore, our sample was likely skewed toward people unsatisfied with recruitment and retention efforts in NL, and those who engage with social media and maintain ties with the province. We did not ask respondents their gender or age, which may have provided further insight into their choices. The strength of our study lies in the number of responses we received, and in the rich narrative data we obtained from focus groups that help deepen the understanding of physician shortages.

CONCLUSION

Our mixed-methods study located *74* physicians who trained at MUN and had intended to practise in NL at some point in their training but faced recruitment and retention challenges too great to allow them to stay. This number represents an opportunity cost to people in the province who face gaps in primary care and long waits for specialist care. Our study outlines several starting points from which recruitment and retention could be improved, ultimately improving provincial health care and helping to fulfil the mandate of the medical school.

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