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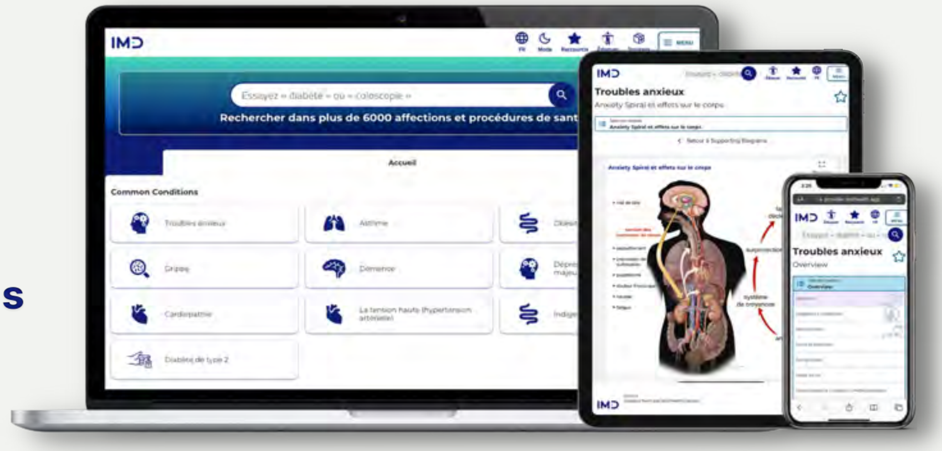
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Editorial / Éditorial

At a loss

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Loss is inevitable. Much as we do not like to think about it, the death rate remains unchanged over the millennia. It is always one per person, no matter what we do.

At the farm, death is a constant visitor. Between the literal wolf at the door and aging chickens, there is plenty at hand even if you discount the abattoir. The rural generalist physician might be shielded from the sundry misadventures of livestock, but death lies heavy for us as well.

The problem is that the death is personal, and the smaller the community the more personal it gets. You know the 16-year-old on the ATV who was broadsided for whom you are attempting, vainly, to establish two large bore IVs at this very moment. You will empty the hospital's blood bank knowing full well that he will not be skating on your son's hockey team this winter.

You know the 86-year-old smoker trapped by an air hose that inadequately compensates for his lungs and whose quality of life has led to his request for medical assistance in dying. You do not like providing that service, and yet you are the most appropriate person to do it. The patient wants you.

You, the physician they have trusted over the years. You, who have cared for them from the first Salbutamol prescription to the latest multi-component inhaler plus daily antibiotic plus hail Mary's of Roflumilast and Theophylline. You, who arranged for the oxygen, trying not to notice the heavy tobacco stains on their right index and long fingers (that root cause for which you had many, many conversations to no avail). You, who had the conversation on a prior admission for their first "do not resuscitate" order. You, who have been doing house calls to their rude hallway of an apartment with worn linoleum at the foot of their Lazyboy (TM) recliner; the recliner from whose prison they wish to release. A release for which they need and ask for your help.

It is a fine line we try to take. A line with understanding and empathy and courage, but also abstraction and professionalism to distance from the emotional maelstrom that can consume us. Sometimes that line is accomplished. Sometimes we fail the patient by going distant. Sometimes, we risk ourselves by getting too close.

Some outcomes we cannot change, but the manner of the outcome, and what we do in their presence, are important and meaningful. We were there for them. We cared and mourn their loss and our loss.

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Une perte toujours présente

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La perte est inévitable. Même si nous n'aimons pas y penser, le taux de mortalité reste inchangé au fil des millénaires. Il y en a toujours une par personne, quoi que nous fassions.

À la ferme, la mort est toujours présente. Entre les loups à nos portes et les poulets vieillissants, il y a de quoi s'inquiéter, même si l'on ne tient pas compte de l'abattoir. Le médecin généraliste rural est peut-être protégé des diverses mésaventures liées au bétail, mais la mort nous guette également.

Le problème est que la mort est personnelle et que plus la communauté est petite, plus elle est personnelle. Vous connaissez le jeune homme de 16 ans qui s'est fait renverser en VTT et pour lequel vous tentez, en vain, de poser deux intraveineuses de gros calibre. Vous viderez la banque de sang de l'hôpital en sachant pertinemment qu'il ne fera pas partie de l'équipe de hockey de votre fils cet hiver.

Vous connaissez le fumeur de 86 ans coincé par un tuyau d'air qui ne compense pas suffisamment ses poumons et dont la qualité de vie l'a conduit à demander une assistance médicale à mourir. Vous n'aimez pas fournir ce service, et pourtant vous êtes la personne la mieux placée pour le faire. Le patient a spécifiquement demandé votre assistance.

Vous, le médecin auquel ils ont fait confiance au fil des ans. Vous, qui les avez soignés depuis la première ordonnance de Salbutamol jusqu'à la dernière ordonnance d'inhalateur à composants multiples, d'antibiotique quotidien et de Roflumilast et de Théophyline. Vous, qui vous êtes occupé (e) de l'oxygène, en essayant de ne pas remarquer les lourdes taches de tabac sur leur index et majeur droits (cette principale cause qui a initié tant de conversations sans vraiment aboutir à quelque chose). Vous, qui avez eu la conversation lors d'une admission antérieure pour leur premier ordre de ne pas réanimer. Vous, qui avez fait des visites à domicile dans le couloir grossier de leur appartement au linoléum usé, au pied de leur fauteuil Lazyboy (MC); ce même fauteuil qui est devenu une prison et ils souhaitent en être libérés. Une libération pour laquelle ils ont besoin de votre aide.

C'est un juste équilibre que nous essayons de respecter. Un équilibre entre la compréhension, l'empathie et le courage, mais aussi l'abstraction et le professionnalisme qui nous permettent de nous distancer du tourbillon émotionnel qui peut nous consommer. Cependant, parfois, cette ligne est franchie. Parfois, nous manquons à notre devoir envers le patient en nous éloignant de lui. Parfois, nous nous mettons en danger en nous étant trop près.

Il y a des résultats que nous ne pouvons pas changer, mais la manière dont ils se produisent et ce que nous faisons en leur présence sont importants et significatifs. Nous étions là pour eux. Nous avons pris soin d'eux et pleuré pour leur perte, ainsi que la nôtre.

EDITORIAL / ÉDITORIAL

President's Message – Gender and rural medicine

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Gender biases and the gender gap; Rural female physicians are not spared from the disparities in income, leadership opportunities, enhanced skills or speciality training seen across all fields of medicine. As a rural female physician, I have lived it in innumerable ways. Being passed over for leadership opportunities, assumptions regarding capacity for involvement in projects, having to limit my scope of practice due to inflexible schedules for life with young children-the list goes on. Sometimes, actions are more subtle, and unfortunately, in other cases, much clearer discrimination occurs. For example, I have seen skilled, knowledgeable female colleagues lose leadership roles to male counterparts at times such as maternity leave.

As outlined by Drs. Cohen and Kiran, 'the gender pay gap in medicine is not explained by women working fewer hours or less efficiently but, rather, relates to systemic bias in medical school, hiring, promotion, clinical care arrangements, the fee schedule itself and societal structures more broadly'.[1] Some progress has been made over the years with respect to the gender divide, and the issue is crucial to address from an equity perspective. However, why should it matter to the SRPC?

Increasingly, medical graduates are women. An Australian study found significantly more females participate in rural undergraduate medical training (70%) compared with males (56%), however, females were 20%–40% less likely to work rurally after completion of their degree.[2] In the US, women are much more likely to leave rural practice than their male colleagues.[3] If we do not address the issues leading to these trends, our rural workforce will be significantly limited in the future. Educational programs, recruitment and retention strategies, clinical team and leadership development must all consider the varied needs of female physicians.

As the SRPC, we must advocate for novel and inclusive approaches from health authorities and governments to ensure the vitality of our rural Canadian physician workforce. We must also look inwardly; our educational programs, such as the Rural and Remote conference, should seek to ensure plenary speakers, presenters and the planning committee reflect the diversity of rural physicians in practice. Our council and executive should be selected based on criteria that embrace philosophies of equity, diversity and inclusion.

Together, let us actively work towards being an organisation considered a leader in gender equity.

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EDITORIAL / ÉDITORIAL

Message de la présidente. Genre et médecine rurale

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Les préjugés sexistes et le fossé entre les hommes et les femmes; Les femmes médecins en milieu rural ne sont pas épargnées par les disparités en matière de revenus, d’opportunités de leadership, d’amélioration des compétences ou de formation spécialisée que l’on observe dans tous les domaines de la médecine. En tant que femme médecin rurale, je l’ai vécu d’innombrables façons. Je n’ai pas été retenue pour des postes de direction, on a présumé de ma capacité à participer à des projets, j’ai dû limiter mon champ d’action en raison d’horaires rigides liés à la vie avec des enfants en bas âge, et la liste ne s’arrête pas là. Parfois, les actions sont plus subtiles et, malheureusement, dans d’autres cas, une discrimination beaucoup plus claire se produit. Par exemple, à l’occasion d’un congé maternité, j’ai vu des collègues féminines compétentes et bien informées perdre des rôles de direction au profit de leurs homologues masculins.

Comme le soulignent les docteurs Michelle Cohen et Tara Kiran, “l’écart salarial entre les hommes et les femmes en médecine ne s’explique pas par le fait que les femmes travaillent moins d’heures ou sont moins efficaces, mais est plutôt lié à des préjugés systémiques dans les écoles de médecine, l’embauche, la promotion, les modalités de soins cliniques, le barème des honoraires lui-même et les structures sociétales de manière plus générale ”.[1] Au fil des ans, des progrès ont été réalisés en ce qui a trait au fossé entre les hommes et les femmes. Cependant, il est essentiel de s’attaquer à ce problème dans une optique d’équité. Mais pourquoi la SMRC devrait-elle s’en préoccuper?

Les femmes sont de plus en plus nombreuses à obtenir un diplôme de médecine. Une étude australienne a révélé qu’un nombre significativement plus élevé de femmes participent à la formation médicale de premier cycle en milieu rural (70%) par rapport aux hommes (56%), mais que les femmes sont 20 à 40% moins susceptibles de travailler en milieu rural après l’obtention de leur diplôme.[2] Aux États-Unis, les femmes sont beaucoup plus susceptibles de quitter la pratique rurale que leurs collègues masculins.[3] Si nous ne nous attaquons pas aux problèmes à l’origine de ces tendances, notre main-d’œuvre rurale sera considérablement limitée à l’avenir. Les programmes de formation, les stratégies de recrutement et de rétention, le développement de l’équipe clinique et du leadership doivent tous prendre en compte les besoins variés des femmes médecins.

En tant que SMRC, nous devons plaider pour des approches nouvelles et inclusives de la part des autorités sanitaires et des gouvernements afin d’assurer la vitalité de notre main-d’œuvre médicale rurale canadienne. Nous devons également nous tourner vers le système en soi; nos programmes éducatifs, tels que la Conférence rurale et éloignée, doivent veiller à ce que les conférenciers pléniers, les présentateurs et le comité de planification reflètent la diversité des médecins ruraux en exercice. Notre Conseil et notre Exécutif doivent être sélectionnés sur la base de critères qui englobent les philosophies d’équité, de diversité et d’inclusion.

Ensemble, travaillons activement à devenir un organisme considéré comme un chef de file en matière d’égalité entre les femmes et les hommes.

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ORIGINAL ARTICLE

The impact of rurality on vulvodynia diagnosis and management: Primary care provider and patient perspectives

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Abstract

Objective: The objective of this study was to better understand how rurality impacts the knowledge, diagnosis and management of vulvodynia by primary care providers (PCPs) practising in the geographically disparate province of Newfoundland and Labrador, Canada.

Design: This was a qualitative case study using questionnaires and semi-structured interviews with PCPs, compared with semi-structured focus groups and interviews with vulvodynia patients conducted in a previous study phase.

Results: Ten family physicians and 6 nurse practitioners participated. Over half had baseline knowledge that vulvodynia has a relatively high prevalence, but most underestimated the likelihood they would see a patient with vulvodynia in their practice. Three barriers to discussing and managing vulvodynia emerged: (1) discomfort initiating sexual/vulvar health conversations; (2) concerns about protecting patient privacy and confidentiality; and (3) time constraints and building therapeutic relationships. These issues were largely corroborated by previous findings with vulvodynia patients. Rural-informed solutions might include: (1) supporting increased education in vulvodynia and sexual health more broadly, including funding to attend continuing professional education and developing more clinical tools; (2) following practice guidelines regarding standardised initiation of sexual health conversations; (3) incentivising retention of rural providers and extending appointment times by reconsidering fee-for-service structures; and (4) researching a tailored vulvodynia toolkit and the potential advantage of mobile health units.

Conclusion: Rurality exacerbates common concerns in the identification and management of vulvodynia. Acting on recommended solutions may address the impact of rurality on the provision of timely care for those experiencing vulvodynia and other sexual health concerns.

Keywords: Dyspareunia, family physician, fee structures, geographic disparities in healthcare, healthcare administration, nurse practitioner, qualitative case study, qualitative research, rural health, sex education, sexual health, vulvar pain

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Résumé
Objectif: Mieux comprendre l'impact de la ruralité sur la connaissance, le diagnostic et la prise en charge de la vulvodynie par les prestataires de soins primaires exerçant dans la province géographiquement disparate de Terre-Neuve-et-Labrador, au Canada.
Conception: Étude de cas qualitative utilisant des questionnaires et des entretiens semi-structurés avec des prestataires de soins primaires, comparés à des groupes de discussion semi-structurés et à des entretiens avec des patientes atteintes de vulvodynie menés lors d'une phase précédente de l'étude.
Résultats: Dix médecins de famille et six infirmières praticiennes y ont participé. Plus de la moitié d'entre eux savaient au départ que la vulvodynie a une prévalence relativement élevée, mais la plupart sous-estimaient la probabilité de voir une patiente atteinte de vulvodynie dans leur pratique. Trois obstacles à la discussion et à la prise en charge de la vulvodynie sont apparus: (1) la gêne à entamer des conversations sur la santé sexuelle/vulvaire; (2) les préoccupations relatives à la protection de la vie privée et de la confidentialité des patientes; et (3) les contraintes de temps et l'établissement de relations thérapeutiques. Ces problèmes ont été largement corroborés par les résultats obtenus précédemment avec des patientes atteintes de vulvodynie. Les solutions adaptées au milieu rural pourraient inclure (1) soutenir une meilleure formation sur la vulvodynie et la santé sexuelle en général, notamment le financement de la formation professionnelle continue et l'élaboration d'outils cliniques supplémentaires; (2) suivre les directives de pratique concernant l'amorce normalisée des conversations sur la santé sexuelle; (3) encourager la rétention des fournisseurs ruraux et prolonger les délais de rendez-vous en reconsidérant les structures de rémunération à l'acte; et 4) faire des recherches sur une trousse d'outils sur mesure pour la vulvodynie et sur l'avantage potentiel des unités de santé mobiles.
Conclusion: La ruralité exacerbe les problèmes courants liés à l'identification et à la prise en charge de la vulvodynie. La mise en œuvre des solutions recommandées peut permettre de remédier à l'impact de la ruralité sur la fourniture de soins en temps opportun aux personnes souffrant de vulvodynie et d'autres problèmes de santé sexuelle.

Mots-clés: Douleur vulvaire, dyspareunie, santé rurale, santé sexuelle, éducation sexuelle, structures tarifaires, administration des soins de santé, disparités géographiques dans les soins de santé, recherche qualitative, étude de cas qualitative

INTRODUCTION

We know a lot about the barriers to screening and diagnosis of vulvodynia, a surprisingly prevalent condition affecting up to one in four people with vulvas.[1] (While we use the term 'woman' and 'women's health' throughout the manuscript when repeating participants' language, appropriate gynaecological care must respect the gender diversity of people with vulvas. Failure to do so results in poor healthcare outcomes.)[2-4]

There are several reasons to question how the rural context may exacerbate challenges with vulvodynia diagnosis and treatment.[5-7] Smaller, more intertwined communities pose an increased risk of breaching 'internal confidentiality'[8] and this may increase patient discomfort in initiating sexual/vulvar conversations. Rural populations are older,[9] and may be less comfortable initiating discussion of sex. At the same time, primary care providers (PCPs) are less likely to question older adults about their sexual health.[10] Rurality is often associated with fewer opportunities for sexual education,[11] which increases the likelihood people will think pain is normal.[12] Finally, while time constraints are a problem across healthcare settings, rural PCP-to-patient ratios are generally lower than in urban centres, due to fewer PCPs practising in rural areas and lower retention of those providers.[13] In addition, rural family physicians often fill multiple healthcare roles, which may result in having less time for office-based primary care.[14]

Our study looked at rural and small urban PCP attitudes and experiences with vulvodynia, corroborated by patients' experiences receiving diagnosis and care, as part of a three-phase, patient-engaged, qualitative case study in Newfoundland and Labrador, Canada. It compares patients' perspectives on the diagnosis and treatment of vulvodynia (collected in Phase 1) with the perspectives of family physicians and nurse practitioners (collected in Phase 2). Our results offer insights into potential solutions for rural contexts, organised into four strategic pillars – education, policy, practice and research.

METHODS

Phase 1 was a qualitative study of 10 NL patient participants and has been published.[12] Participants were identified through patient records from the pelvic pain practice in St. John's of KB. The clinic is the only specialised one in the province, and patients were invited to participate in a focus group. Three groups were held, running 1–2 h each, and were audio-recorded. A focus group interview guide was used to stimulate patient-generated narratives about the challenges of receiving a vulvodynia diagnosis and treatment. Demographic data and treatment histories were also collected from participants. To enhance validity and increase participant agency, transcripts were returned to their respective group members for comment, as were anonymised summaries of the study as a whole. No revisions were requested. Data were then analysed and independently hand-coded by two researchers using inductive thematic coding.[12]

Phase 2 collected data on PCPs' perspectives on barriers to diagnosis and treatment for vulvodynia. Study information was distributed at two PCP provincial health conferences and to regional health authorities and professional peer groups via newsletters, E-mails and closed social media. Research collaborators carried out secondary, arms-length recruitment. Snowball strategies were also used. Self-selecting individuals were given additional information before providing written consent. Participants first completed a 22-item questionnaire collecting demographic information and baseline knowledge of vulvodynia. Semi-structured interviews were conducted in person or via teleconferencing between October 2018 and April 2019. Interviews lasting 30–90 min were audio-recorded, transcribed verbatim and de-identified.

Transcripts were independently read, emergent ideas tagged and initial codes created. Codes were populated with supporting participant quotations, merged, and collapsed. Codes were synthesised until the authors agreed that the meaning of the codes (meaning saturation) was well described and understandable.[15] Phase 2 PCP themes were compared with Phase 1 patient themes, and areas of overlap identified.

Both study phases were approved by Memorial University's Health Research Ethics Board (Phase 1: HREB #2015.049; Phase 2: #2018.123).

RESULTS

Ten family physicians and 6 nurse practitioners responded to the questionnaire and participated in individual and paired interviews. Twelve identified as women and 4 as men. Ages ranged from 35 or younger (n = 4), 36–45 years (n = 4), 46–55 years (n = 6), to over 55 (n = 1) and no data (n = 1). Years in practice varied: <5 years (n = 6), 5–10 years (n = 3), 11–19 years (n = 3), 20+ years (n = 3) and no data (n = 1). Ten of 16 held university appointments or were university affiliated. Participants practised across the province, with 7 practising in the main urban centre of St. John's, which is home to the only tertiary referral centre and specialised vulvodynia resources in the province. Four more participants were located within 3.5 h of it. Participants practising outside this region reported that their patients had to travel 3.5–12 h by car or, in the case of Labrador on the Canadian mainland, had to travel by air to access resources.

While 56% of PCPs (9/16) reported the prevalence of vulvodynia to be 10% or higher, 94% (15/16) said that they 'rarely' or 'never' see affected individuals. Taking a sexual history was considered a requirement by 75% (12/16) of participants. None were aware that the cotton swab test[16] was the recommended physical examination tool for localised provoked vulvodynia. The majority (15/16) of PCPs were able to list at least one appropriate differential diagnosis for vulvodynia, and half correctly identified some of the treatments often used. The majority (14/16) of participants correctly identified that a multidisciplinary approach to vulvodynia treatment was appropriate. Thirty minutes or longer was considered an appropriate amount of time for a vulvodynia office visit by 81% (13/16).

Three barriers to diagnosis and treatment were: (1) initiating sexual/vulvar health conversations; (2) managing patient privacy and confidentiality and (3) addressing time and educational constraints that limit building therapeutic relationships. Each concern is described and supported with Phase 1 patient data.

Initiating sexual/vulvar health conversations

Primary care provider data

Many PCPs said that it was uncomfortable or inappropriate to initiate a conversation about a patient's vulvar or sexual health in the absence of patient prompting:

> I don't ask a woman who is not offering to talk about her vagina, how her vagina is doing (or) if she's having sex. It wouldn't be really that appropriate. (PCP1)

PCPs speculated that patients may be embarrassed to discuss sexual health concerns for fear of being seen as abnormal.

> I think the biggest challenge is that it's not brought up. Because it's seen as some sort of fault of the woman herself, you know, *there is something wrong with me* [...] And the few times that it has come out, I've always thought to myself, *oh no, I should've asked about this years ago*. (PCP4)

It was evident that PCPs experienced discomfort, even in the context of the research interview, as noted in PCP3's hesitation:

> [Sex] is never an easy thing to discuss [...] So, this is certainly a weakness of mine, I have gotten no proper training, so I would always struggle with a case like this, if someone has pain with-, with-, with sex.

According to PCPs, patients were less likely to initiate conversations about sexual pain when they thought pain was expected.

> If you asked about painful sex, they'll say everything is fine. Like they are just coming in for their regular Pap or mammogram requisition or whatever. And then you are going down through, and you say *any pain in sex?* and they say *yes*. When they had just said everything was fine. I think a lot of women, probably menopausal women, in particular, think it's normal and they think that if they are having discomfort, it's menopause or it's just what happens, and they probably don't present it as a problem. (PCP12)

Gender discordance was another issue.

> I don't see many women with complaints. They don't tell me, at least about sexual problems, to be honest. [...] About three-quarters of our [clinic] providers are women, and they are more likely to go to a woman to speak about those issues, I suspect, than myself [a man]. (PCP16)

Age discordance between PCP and patient also exacerbated disclosure discomfort:

> Sometimes the kids will hold things back because they were embarrassed, you know they were dealing with an older male physician, so they didn't want to discuss some elements of their history. (PCP10)

Pap tests have traditionally been an ideal time for a routine check-in about sexual health, but these occurred less often as screening recommendations shifted:

> We're doing Paps every three years with the new guidelines. [Vulvodynia] is maybe not something that comes up outside of those times if you are not screening for it. (PCP5)

Given the infrequency of a routine opportunity for screening, PCP3 suggested this strategy:

> A little pamphlet that's floating in our bathroom, so it's a little more discreet. Or some way for patients to access a little bit of information which might inspire them to discuss it.

Linking vulvodynia screening questions to another screening visit such as STI testing was suggested as an appealing way to overcome discomfort for both the patient and PCP.

> I think one needs to actually incorporate having direct questions [about sexual/vulvar health], […] I think it would be easy for a woman to answer a direct question. But to just bring it up as a complaint, I don't think they often know, '*is it something that I even talk about to a physician?*'.(PCP4)

Patient corroboration

Phase 1 patient data elicited similar themes. Patients described how it feels inappropriate to raise vulvar/sexual health unless prompted by the PCP, particularly if one believed their pain was 'normal':

> I just thought this is me. This is normal [...] not really realizing that this isn't normal, and that this kind of pain doesn't have to be this way. [...] I need [the doctor] to ask. (Janice [Patients identified with pseudonyms]).

Routine screening questions may normalise sexual health conversations that might otherwise be considered uncomfortable or inappropriate territory when raised by either PCP or patient.

> It's not something you're comfortable bringing up. At least I wasn't. And I didn't know it was an actual problem for a really, really long time […] until it got so hurtful […] if I was asked questions and educated, I think I would have gotten help a lot sooner. (Pam)

Some patients said that they lacked the language to describe the problem, posing a barrier to diagnosis.

> I remember going to my family doctor and not really knowing the words to say, just saying *we are trying to have sex and it's not comfortable, it's very uncomfortable*. But I never would have thought to, or probably even at that point been able, to say, *we can't penetrate*. (Abbey)

Interestingly, patients did not explicitly identify age and gender discordance as a barrier to initiating a conversation. Danielle suggested that such preferences are 'personal depending on the individual' and that she 'really [doesn't] care: Male, female; my doctor is male'.

Managing patient privacy and confidentiality

Primary care provider data

PCPs expressed concern about respecting patient privacy and confidentiality. PCP9 said, 'Sometimes in a small community, it may be uncomfortable [to discuss vulvar pain], because you know people personally, or I know them professionally'. Another said:

> I had some difficulties [discussing sexual health], usually with patients who were young. Because I practise in a rural area, so I had often looked after them since they had been--you know, I delivered them, looked after them, and also looked after their parents. So, sometimes that would be a little uncomfortable, mostly for the patient. (PCP10)

Patient corroboration

Patients discussed similar concerns about access to confidential care.

> I moved to a very small, small, isolated community on the south coast, and like people knew my shoe size by the time I was there for a week! So, the service [internal physiotherapy] was not available, but even if it had been, I would have been like no, not going to expose myself that way. Definitely not. (Abbey)

Addressing time and educational constraints that limit building therapeutic relationships

Primary care provider data

Time constraints in medical training and healthcare are ubiquitous and perennial. Most PCPs reported receiving minimal or no training in vulvodynia and other pelvic pain conditions. As one PCP bluntly stated, 'I have never seen this word [vulvodynia] before in my training' (PCP12). Another explained:

> Even though I do a lot of women's health, I feel like it is a big knowledge gap for me. And in med school, I don't ever really remember learning much about it. I might have had a clinic during my gyne rotation and clerkship and that's probably it. (PCP15)

PCP3 suggested self-study tools, and professional development sessions for improving PCP awareness of vulvodynia.

> An online module would be something I would certainly do if I had the opportunity […] But that should be fairly concise and nothing too long-winded, something straight to the point, right? You know, three, four pages max.

However, many described a lack of time or motivation to address this knowledge gap, since vulvodynia was seen as a niche concern, deprioritised in training as less urgent or prevalent than other medical conditions. PCP6 put it this way: 'I think people might not make the time to learn about [vulvodynia] because it doesn't present that commonly'. PCP1 agreed. 'We got a million different things coming at us all the time. So [vulvodynia] just ends up on the pile of things that you need to learn more about'. These statements highlight misinformation about the prevalence of vulvodynia and the knowledge required to identify it as the common problem it is.[1]

Even when educated and motivated to address sexual health, time was still 'the biggest barrier' (PCP15). Educational opportunities are also more limited in rural areas, meaning PCPs who would like to deepen their knowledge require more time and resources to do so: 'CMEs [continuing medical education] are always good [for gaining more knowledge of a subject], but location is always a barrier'. (PCP3)

> Any educational opportunity that is within my timeframe that I can avail of, I try to, right? [...] I'm a twelve-hour drive away from [. . .] St. John's, where everything usually takes place [. . .] I'm not going to take off work very easily for that. (PCP8)

Limited time for patient appointments also impedes conducting a sexual health history and working through a differential diagnosis. Building a comfortable relationship between patients and PCPs enabled the discussion of sensitive topics:

> I'm able to interview the patient first and have a therapeutic relationship with them and then they feel more comfortable. So, when they get their Pap, they are not as uncomfortable because we already have a relationship built. (PCP11)

PCPs agreed that it takes time to build relationships and opportunities for disclosure.

> Not everyone will take the time to do a really thorough sexual health history. They don't come in and say they are having *female sexual pain* or whatever. It usually gets revealed some other way. (PCP15)

The diagnostic process takes considerable time: 'I think the other huge barrier is the amount of time it would take, like if I went through that differential diagnosis [...] I think it would take me like five office visits' (PCP6). Several PCPs suggested that a simplified algorithm or flowchart may expedite the process:

> A nice one-page algorithm poster [...] saying *do this, rule out that, work your way through, try this next*, that kind of a thing. (PCP3)

The fee-for-service structure also disincentivises PCPs from taking the time necessary for a sexual health interview:

> [It's] not only lack of time [that is the problem], but lack of compensation. Because these are long interviews and you have to work somebody into telling you this intimate stuff and if at the end of the day you are gonna get 32 dollars out of it, you can't just make a living out of it. (PCP15)

Patient corroboration

Patients also reported that vulvar conditions are under-prioritised: 'women's health issues, in general, have not received as much research or as much funding' (Fay). Fay, in talking with Gabriella, further noted how their family physicians lacked the time to research the topic:

> Gabriella: Maybe part of the problem is [the GP] is not given the time to go and educate himself [...]
> Fay: I'm pretty sure there's a reference book somewhere he could have looked in but yeah, again, the time. It's like, *appointment, appointment, appointment*.

Patients described the enormous impact such deprioritisation had on their lives:

> We didn't have a second child because of this [...] By the time it got fixed, I'm 41 now, so by the time we went through [diagnosis and treatment], then it was like now I'm older, the risk of having issues [is greater], and my husband was like *'do you really want to go through that again?'*. (Danielle)

DISCUSSION

We found solutions for improving diagnosis and management of a common sexual health problem through a rural lens are key to building regional capacity through four strategic pillars: education, practice, policy, and research.[17]

Education solutions

Broader-based sexual health education is needed for patients and PCPs. The upstream solution for PCPs is to increase sexual/vulvar health content in medical and nurse practitioner curricula. This supports previous research regarding PCPs' lower comfort levels when assessing sexual health.[18] Diverse teaching and learning strategies have been shown to improve knowledge uptake.[19] In this situation, curriculum planners might encourage reflective learning when examining gender-role norms.

The effectiveness of standard continuing professional development (CPD) programmes for improving rural PCPs' professional practice and patient outcomes is unclear.[20] CPD modules devised through a rural lens and succinct and accessible resources about sexual/vulvar health may fill knowledge gaps with the benefit of being widely available regardless of scheduling or geography. Funding and paid time off to participate in CPD has also been ranked as extremely important for recruiting and retaining rural practitioners in Canada.[21]

Creative knowledge translation solutions that consider the unique rural practice environment may enhance knowledge uptake and reflective practice that benefits both PCPs and patients.[19] Office tools developed and tested with patient and PCP collaborators may include social media and other awareness campaigns as well as pamphlets or posters for clinic waiting rooms and bathrooms.

Practice solutions

Patients and PCPs agree that initiating conversations about sexual/vulvar health can be uncomfortable. The Society of Obstetricians and Gynaecologists of Canada Sexual Health Consensus Guidelines[22] provide sexual health screening questions, but access is limited to membership or academic affiliation. Developing practice solutions based on these guidelines and tested by local PCPs and patient collaborators may have a greater impact because they have stakeholder buy-in.

The good news is that patients expressed less concern about gender and age discordance than PCPs perceived. The greater barrier to sexual/vulvar health conversations was sufficient knowledge and comfort discussing sensitive topics. According to the SOGC guidelines,[22] patients want their PCPs to initiate these conversations regardless of their own comfort with sexual topics. Our research supports this guideline and further suggests that patients want this regardless of the gender of their PCP. Therefore, it is incumbent upon PCPs to address their knowledge gaps and comfort issues, so they can establish a therapeutic relationship that invites patients to speak about their sexual health concerns.

Further practice solutions to support conversation and diagnosis may include visual aids to explain anatomy to patients and algorithm posters to direct initial diagnosis, investigation, and management of vulvodynia.

Policy solutions

In 2022, the WHO proclaimed that sexual health is a 'fundamental' component of overall health and well-being.[23] The current time-constrained environment and fee-for-service structure disincentivises how PCPs allocate time for comprehensive assessment. Our results add to the ongoing debate about the efficiency and productivity of Canadian physician fee structures.[24] Even if remuneration were sufficient, the amount of time needed might still pose a barrier to PCPs in rural and small urban communities already overburdened by patient volume. Appropriate remuneration, screening tools and blended or stepped care models are potential solutions for maximising time and resource allocation as is more effectively using nurse practitioners in rural communities.[25]

PCPs and patients agree that there is currently no routine trigger for initiating a sexual health conversation since the annual gynaecologic assessment, the 'Well Woman Visit' (the authors recommend moving away from such gendered terminology), was eliminated due to waning evidence in support of annual Pap and breast cancer screening.[26,27] Further research is needed to determine ideal alternative opportunities to initiate a conversation about sexual health that would both provide adequate screening for these concerns while remaining feasible within the busy practice of rural PCPs.

Research solutions

Phase 3 of our research will develop and evaluate a guideline-based 'toolkit' for assessment, diagnosis and treatment of vulvodynia, including local resources created according to practitioner-identified preferences for content and format. An effective toolkit would also provide a common language to address communication barriers.[28]

Partnering with provincial medical and nursing associations to conduct a nationwide survey of PCP awareness of vulvodynia may reveal important gaps in the knowledge about vulvodynia that falls along the rural-northern-urban divide.

Promising research has illustrated the success of mobile health units for addressing the needs of marginalised populations such as Indigenous peoples,[29] immigrants[30] and the elderly.[31] However, research on the effectiveness of mobile sexual health units serving rural and northern communities is sparse. A mobile unit staffed by sexual health and pelvic pain healthcare providers could service small communities on a rotational schedule, similar to the mobile mammography units operating in many Canadian provinces.[32] Our results suggest there may be benefits to a mobile unit to address some of the barriers to rural care, such as the PCP, knowledge gap and internal confidentiality. Further research is needed to determine the feasibility and cost-effectiveness of such a unit, including how many communities would need to be served by a single unit to make it a worthwhile investment.

Limitations

The small sample size limited our ability to conduct a rural/urban comparison or a conceptual analysis or to make claims about how or why differences in PCP perspectives exist. Recruiting patients from the province's pelvic pain clinic ensure that participants met the inclusion criteria but may have biased the sample by excluding patients who were either not yet referred for treatment or who were successfully treated by their healthcare provider. Patients included in the study (1) were at minimum, identified by their PCP as having chronic vulvar pain or discomfort, (2) felt that it was appropriate to bring the concern to their PCP and (3) saw a PCP with sufficient knowledge of the resource to be able to refer the patient out to KB's clinic. Patients who were not referred to the clinic may differ in any of these three aspects. Furthermore, focus group or interview participation is always subject to recall bias and volunteer bias.

CONCLUSION

Corroborating PCP and patient experiences with diagnosis and care of vulvodynia demonstrates how rurality exacerbates concerns about initiating sexual/vulvar health conversations, managing patient privacy and confidentiality, time constraints and building therapeutic relationships. Acting on recommended solutions may address the impact of rurality on the provision of timely care for those experiencing vulvodynia.

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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

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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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ORIGINAL ARTICLE

Health and well-being of Hutterite farmers in Alberta: Results from the Sustainable Farm Families Alberta program

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Abstract

Introduction: This article describes the health and lifestyle profile of Hutterite farmers in Alberta who participated in a health literacy education program.

Methods: Longitudinal quantitative and qualitative data from the sustainable farm families (SFF) Alberta program (2014–2017) were used to describe the health and lifestyle profile of Hutterites. Data were analysed using descriptive statistics and conventional and summative content analysis.

Results: Four hundred and twenty-seven Hutterite men and women aged 18–75 years participated in a health literacy education program. About 50%–80% of Hutterites reported good health status, no hearing or sleeping problems, little to no body pain, fewer breathing and bladder difficulties and no constipation/diarrhoea. On average, the risk of diabetes was low (mean = 3.4) with total glucose (mean = 5.2) and cholesterol (mean = 3.5) within normal levels. Mental health outcomes such as anxiety (mean = 4.1), stress (mean = 6.7) and depression (mean = 3.1) were also within normal to mild ranges. Qualitative data showed that Hutterite farmers are committed to maintaining physical health and adopting strategies to improve mental health and lifestyle behaviours.

Conclusion: Hutterites have recognisable health challenges like other rural farming communities but are aware of their physical and mental health challenges and engage in healthy lifestyle behaviours. The Hutterite tenets of living present a perfect ecological setting for sustainable health promotion intervention.

Keywords: Health promotion, Hutterites, mental health, physical health, sustainable farm families

Résumé

Introduction: Cet article décrit le profil de santé et de style de vie des agriculteurs huttériens de l'Alberta qui ont participé à un programme d'éducation en littératie en santé.

Méthodes: Des données quantitatives et qualitatives longitudinales du programme SFF Alberta (2014 à 2017) ont été utilisées pour décrire le profil de santé et de

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mode de vie des Huttérites. Les données ont été analysées à l'aide de statistiques descriptives et d'une analyse de contenu conventionnelle et sommative.

Résultats: Quatre cent vingt-sept hommes et femmes huttériens âgés de 18 à 75 ans ont participé à un programme d'éducation à la santé. Environ 50 à 80% des Huttériens ont signalé un bon état de santé, aucun problème d'audition ou de sommeil, peu ou pas de douleurs corporelles, moins de difficultés respiratoires et vésicales et pas de constipation/diarrhée. En moyenne, le risque de diabète était faible (moyenne = 3,4) avec une glycémie totale (moyenne = 5,2) et un taux de cholestérol (moyenne = 3,5) à des niveaux normaux. Les résultats en matière de santé mentale tels que l'anxiété (moyenne = 4,1), le stress (moyenne = 6,7) et la dépression (moyenne = 3,1) SE situaient également dans des plages normales à légères. Les données qualitatives ont montré que les agriculteurs huttérites sont déterminés à maintenir leur santé physique et à adopter des stratégies pour améliorer leur santé mentale et leurs habitudes de vie.

Conclusion: Les Huttérites ont des problèmes de santé reconnaissables comme les autres communautés agricoles rurales, mais sont conscients de leurs problèmes de santé physique et mentale et adoptent des modes de vie sains. Les principes de vie huttériens présentent un cadre écologique parfait pour une intervention durable de promotion de la santé.

Mots-clés: Familles d'agriculteurs durables, santé physique, santé mentale, Huttérites, promotion de la santé

INTRODUCTION

Rural farmers' well-being is essential due to the protective and risk factors farming have on their health.[1] However, several socio-political and economic factors, such as globalisation, pricing and climate change, affect farming and farmers' well-being.[2-4] Farmers face multiple individual and socio-environmental challenges, including exposure to pesticides,[5] injuries,[6,7] anxiety,[8] stress,[9] depression[10] and limited access to health care.[11] These challenges affect not only farmers but also their families, particularly those who live on the farms.[12-14] Hutterite farmers are an example of a farming community facing such challenges.

Hutterites are a religious group that originated in the 16th century in Europe and are known for their communal way of life based on sharing, cooperation, and mutual support.[15] They believe in living a simple and communal life, rejecting personal possessions and accumulation of wealth, and emphasize the importance of community ownership and shared resources.[15] Hutterites have a strong tradition of education, and their communities are organised into self-sufficient farming colonies.[16] They practise egalitarianism, endogamy, patriarchy and gender-based division of labour.[15] Hutterites in Canada, particularly in Alberta, produce a significant amount of agricultural produce despite owning only a small percentage of farmland. For instance, Hutterites own about 4% of Alberta's farmlands yet produce at least 80% of the province's eggs, 33% of its hogs, and 10% of its milk.[17] Due to the blending of farm work and family duties, Hutterites may be more vulnerable to several socioeconomic and environmental factors influencing well-being.[18] Thus, examining the well-being of Hutterites in an agricultural context is important because farming can both improve and threaten their health.[19]

Health promotion efforts among farmers have traditionally focused on injury prevention through educational programs on safe agricultural practices.[20] However, there is a growing emphasis on health literacy programs that address mental and physiological health and healthy living.[21-23] The Farm Safety Centre has provided workshop-based literacy education to farmers across Alberta since 2014 through the Sustainable Farm Families (SFF) program.[24] This program educates and empowers rural farmers, including Hutterites, on ways to manage their health, safety and well-being.[20,24] The program's effectiveness in changing Hutterite lifestyles is uncertain, given their aversion to anything contrary to their beliefs.[21] More importantly, the effects of farming on the well-being of Hutterite colonies, which are exclusively farming communities and significant contributors to farming and food production in Alberta,[16] are not well known. This paper uses longitudinal data from the SFF Alberta program to describe the health characteristics and risk factors of Hutterite farmers in Alberta.

METHODS

Study design, population and data sources

The SFF Alberta program involved workshops held during the off-farming season to prioritise the health, well-being and safety needs of Hutterite farmers in Alberta.[24] The program used a multistage mixed-method approach through a participatory framework[25] and included questionnaires, medical health assessments and interviews. Participants over 18-years-old, living in rural areas, comfortable communicating in English, and committed to attending the workshops were included in the study. Only active farmers were included to improve health literacy and promote safe work practices. Respondent-driven sampling was used to optimize participation, and most participants belonged to the Dariusleut sect, which is the dominant sect in Alberta. All colonies involved in the study were in southern Alberta, known for its large and fertile lands.

Annual physical assessments were collected using standardised instruments and questionnaires[26,27] to gather the data on various health factors including information on overall health status, physical activity, medical history and mental health. Qualitative data were collected through an action plan, and participants were encouraged to reflect on and act on their health goals. This paper only includes the written component of the interview.

Data analysis

A mixed-method approach was used to analyse the data and increase the credibility and validity of the results.[28] Quantitative data analysis was conducted using descriptive statistics,[29] while qualitative data analysis used content analysis based on grounded theory principles.[30] The coding process involved the immersion of data, sorting, coding and comparisons of components, resulting in three categories and six codes. To ensure validity, rules for the translation of codes into text were developed.[30] The analysis was augmented with summative content analysis techniques to identify the patterns related to health and well-being [Table 1].[31]

Ethics approval

This study adhered to the Declaration of Helsinki and these analyses were approved by the Alberta Research Information Services system in February 2022 through the University of Alberta.

RESULTS

Quantitative results

The baseline workshop (held in 2014-2015), was attended by 1,342 Hutterite farmers. Only 64.3% (*N* = 863) and 39.9% (*N* = 535) of baseline workshop participants attended the second (2015-2016) and third (2016-2017) workshops, respectively. Attrition rates from baseline to follow-up workshops were higher since participants had to spend their entire day (12-hours) at the workshop. A total of 427 participants attended all three workshops, with 49.9% females and 50.1% males. Participants' average age was 42.5 years, with 76.2% aged 25-64 years. The Dariusleut sect

Table 1: Qualitative themes by colony

Category/codes	All colonies (*n*=124), *n* (%)	Individual colonies					
		Winfield (*n*=12), *n* (%)	Debolt (*n*=14), *n* (%)	Grand Prairie (*n*=9), *n* (%)	Cleardale school (*n*=28), *n* (%)	Raymond (*n*=22), *n* (%)	Shady Lane (*n*=39), *n* (%)
Maintaining physical health							
Weight gain/loss	65 (52)	9 (75)	8 (57)	3 (33)	14 (50)	9 (41)	22 (56)
Physical activity engagement	59 (48)	11 (92)	9 (64)	3 (33)	16 (57)	10 (45)	10 (26)
Physician visit/medication use	5 (4)	1 (8)	1 (7)	1 (11)	0	2 (9)	0
Strategies for mental health							
Reducing anxiety/stress/depression	30 (24)	2 (17)	4 (29)	4 (44)	6 (21)	3 (14)	11 (28)
Lifestyle modifications							
Dietary habits	46 (37)	6 (50)	5 (36)	4 (44)	9 (32)	11 (50)	11 (28)
Leisure activities	29 (23)	2 (17)	6 (43)	2 (22)	4 (14)	6 (27)	9 (23)

Only Hutterite colonies with available qualitative data are reported here. *n*: The total number of individuals per colony comprised approximately 86.7% of participants [Table 2].

Physical health status, mental health outcome and lifestyle behaviours of Hutterite farmers

A significant proportion (50%–80%) of participants had good overall health and few physiological issues, with normal ranges for metabolic age, body mass index (BMI), glucose and cholesterol levels. However, a few participants had some at-risk or abnormal physiological indicators [Tables 3 and 4]. Based on the Depression, Anxiety and Stress Scale assessment instrument, participants had normal-mild mean symptom scores for anxiety, depression and stress, with few having severe scores. In addition, most participants engaged in moderate physical activity for at least 30 min and did not drink alcohol or smoke [Table 5].

Qualitative results

A connection between the quantitative and qualitative results was found, with physical and mental health concerns being similar across the interview transcripts [Table 1]. The findings supported the theory of reasoned action and planned behaviour,[32] indicating that Hutterite farmers were aware of their physical and mental health challenges and were intentional about improving their health.

Table 2: Demographic information for participants with data across workshops 1, 2, and 3 of the intervention year (*n*=427)

Demographic characteristics	All 3 workshops, *n* (%)
Age (years), mean (SD)	42.5 (15.4)
Age groups (years)	
Youth (18–24)	57 (11.2)
Adults (25–64)	383 (75.5)
Seniors (65+)	67 (13.2)
Gender	
Female	213 (49.9)
Male	214 (50.1)
Sects of Hutterites	
Dariusleut	332 (86.7)
Lehrerleut	51 (13.3)
Locations of Albertan Hutterite colonies	
South zone	98 (25.6)
Calgary zone	8 (2.1)
Central zone	255 (66.6)
Edmonton zone	0
North zone	22 (5.7)

SD: Standard deviation

Maintaining physical health

Hutterite farmers were commonly interested in improving their physical health, with weight loss/gain, physical activity engagement, and compliance with medications being frequent concerns. Hutterite engagement in physical activity was motivated by various factors, including weight reduction and controlling blood pressure and cholesterol levels for older adults with recognized health challenges such as hypertension and diabetes.

> 'Walking every morning 5 times per week for 20 min and taking a weekly Zumba class' (Shady Lane Colony).

Strategies for mental health

Stress and anxiety attributed to farm work were common among Hutterite farmers and colonies. They had diverse ways, stratified by individual and religious beliefs, of relieving stress and anxiety. Some farmers used breathing exercises, recreational activities and discussing stressors with other people, while others relied on their religious beliefs and faith, positive thinking or critically evaluating and tackling the issue causing the stress via meditation.

> 'Differentiate between a mountain and a molehill, meditate at least weekly and try to cross bridges, as they come not 3 days prior' (Debolt Colony).

Lifestyle modifications

Hutterite farmers had different goals when it came to lifestyle choices, with some focused on dietary habits for health reasons while others were interested in recreational activities. However, all modifications were related to either staying or becoming healthy. Farmers had various beliefs about how to improve their habits, such as eating smaller portions, avoiding late-night snacks, increasing fibre intake, and cutting back on sweets, sugars and fatty foods to improve their metabolic age and reduce cholesterol levels.

Farmers and their families associated different meanings with leisure activities. Some engaged

Table 3: Descriptive information for physical health measures (*n*=427)

Measures	*n* (%)
General health status	
Very poor	71 (22.0)
Poor	7 (2.2)
Fair	83 (25.9)
Good	145 (45.3)
Excellent	14 (4.4)
Body pain	
None	84 (26.3)
Very mild	133 (41.6)
Moderate	91 (28.4)
Severe	11 (3.4)
Very severe	1 (0.3)
Health interference	
Never	127 (40.3)
A few	139 (44.1)
Monthly	21 (6.7)
Weekly	13 (4.1)
Daily	15 (4.8)
Hearing quality	
Both ears are good	188 (59.1)
Little difference in 1 ear	26 (8.2)
Little difference in both ears	89 (28.0)
Lots of difference in both ears	12 (3.8)
Deaf in 1 ear	1 (0.3)
Deaf in both ears	2 (0.6)
Breathing difficulties	
Never	178 (45.2)
Rarely	77 (19.5)
Sometimes	119 (30.2)
Always	20 (5.1)
Constipation/diarrhoea	
Yes	53 (19.1)
No	225 (80.9)
Bladder control difficulties	
Yes	68 (16.4)
No	346 (83.6)
Sleep quality	
Very poor	68 (22.7)
Poor	13 (4.3)
Fair	60 (20.1)
Good	111 (37.1)
Excellent	47 (15.7)
Diabetes risk	
Mean score (SD)	3.4 (2.1)

Diabetes risk score: 0–14 points indicates a low-to-moderate risk of diabetes, 15–20 points indicates a high risk of diabetes, >20 points indicate a very high risk of diabetes.[32] SD: Standard deviation

Table 4: Descriptive information for mental health measures and clinical indicators (*n*=427)

Measures	Mean (SD)	
	Baseline	Workshop 3
Mental health outcomes		
Anxiety	2.6 (2.9)	4.1 (4.8)
Depression	2.2 (2.8)	3.1 (4.4)
Stress	4.7 (4.2)	6.7 (5.8)
Clinical indicators		
Metabolic age (years)	49.4 (18.7)	50.1 (19.1)
BMI (kg)	28.9 (5.9)	28.9 (5.9)
Pulse rate (bpm)	76.1 (12.9)	75.4 (10.8)
Forced expiratory (L)	0.9 (0.3)	0.9 (0.3)
Oxygen saturation (%)	97.1 (1.9)	97.4 (1.7)
Total glucose (mmol/L)	5.4 (1.7)	5.2 (1.0)
Total cholesterol (mmol/L)	3.6 (1.1)	3.5 (1.0)
Body fat (kg), *n* (%)		
Obese	188 (47)	164 (40.9)
Healthy	90 (22.5)	107 (26.7)
Overfat	111 (27.8)	119 (29.7)
Under fat	11 (2.8)	11 (2.7)

DASS-21 scoring guide: Normal (DASS-D: 0–4, DASS-A: 0–3, DASS-S: 0–7), mild (DASS-D: 5–6, DASS-A: 4–5, DASS-S: 8–9), moderate (DASS-D: 7–10, DASS-A: 6–7, DASS-S: 10–12), severe (DASS-D: 11–13, DASS-A: 8–9, DASS-S: 13–16), extremely severe (DASS-D: 14+, DASS-A: 10+, DASS-S. : 17+), total cholesterol level: <5.2 is desirable, 5.2–6.2 is borderline, >6.5 is high. Total glucose levels: <5.7 is normal, 5.7–6.4 is pre-diabetes, and>6.5 is diabetes. BMI: Body mass index, SD: Standard deviation, DASS: Depression Anxiety Stress Scale

in recreational activities like dancing, watching television and outdoor activities, while others engaged in manual labour or self-development activities as a form of recreation. For instance, most farm families engaged in dancing, yoga, outdoor activities, camping and regular get-togethers with friends and families as a way of engaging in pleasurable activities.

> 'Assess if boards are salvageable, purchase them if needed …. Trees on the fence are cut and split before winter' (Shady Lane Colony).

DISCUSSION

Hutterite farmers in rural Alberta are at risk of physical health issues due to their overweight and/or obese BMI scores and unhealthy body fat percentage, which increase their risk of cardiovascular and metabolic diseases such as heart disease, stroke, hypertension, obesity, and diabetes.[33,34] Their use of highly mechanised farming techniques may also contribute to their increased risk of obesity.[35]

Hutterites have normal total cholesterol and glucose levels, indicating a low risk of diabetes. However, a 2014 Health Trends Alberta report revealed that a higher proportion of Hutterites than non-Hutterites had diabetes.[36] Although our results may not be generalisable to the wider farming population, it provides important insight into the

Table 5: Descriptive information for lifestyle behaviours

Measures	*n* (%)
Moderate physical activity (30+ min)	
Yes	243 (59.7)
No	164 (40.3)
Smoking	
Never	363 (87.9)
Quit	48 (11.6)
Currently	2 (0.5)
Drinking of alcohol	
Never	102 (24.7)
Monthly	73 (17.7)
Once a week	103 (24.9)
2–4 times per week	97 (23.5)
5+ times per week	38 (9.2)

health and lifestyle of Hutterites. Hutterites' healthy behaviours such as physical activity and dietary modifications could reduce the risk of diabetes.[37,38]

Male Hutterites had poorer psychological health compared to females, especially in the age group of 25–64 years, although symptoms of depression, anxiety and stress were in normal-mild ranges. Perhaps, the patriarchal system practised by Hutterites and rural farmers in general may be a contributing factor to the poor mental health status of men in these communities.[39] There were inter-sect differences in psychological health. Members of the Lehrerleut sect had poorer psychological outcomes compared to members of the Dariusleut sect. The Lehrerleut sect is more conservative and less receptive to modern technology, and rarely interacts with the Dariusleut sect.[16] Perhaps, personality differences and social isolation may be the reasons for the differences in mental health outcomes.[40,41] However, our study was unable to identify the internal factors that influence psychological health outcomes in the Lehrerleut sect, and further research is needed in this area.

Qualitative data from our study showed that Hutterites were less concerned about their mental health and less likely to seek medical care, which is consistent with research that suggests strong belief systems may discourage visible minority populations from seeking treatment.[11,42,43] Our study also found that Hutterites viewed their lifestyle as a coping strategy for mental health and had diverse individual and collective strategies based on their religious and cultural beliefs to improve their well-being. This may explain why the mental health of Hutterites and other Old Order Anabaptist groups is often better than the general farming population, as they share similar religious and cultural beliefs.[44-46]

Limitations

Our study used standardized questionnaires to measure clinical indicators and collect self-reported health measures for the secular Hutterite population in Canada, which has limited literature on health and well-being. However, there are some methodological issues, such as potential overburdening of participants leading to high attrition rates, self-reported physical health and lifestyle data collected only at baseline and potential exaggeration of responses due to the close-knit nature of the Hutterite community.[47-49]

CONCLUSION

Our study found that despite methodological issues, Hutterite farmers are aware of their health challenges and engage in healthy lifestyle behaviours, which could potentially mitigate the risk of metabolic health impairment. The Hutterian culture and religious beliefs also helped mitigate the impact of physical and mental health challenges on their well-being, making it a good ecological setting for health promotion interventions.[21,22] However, health screening revealed the need for referral to address priority health issues among this unique population.

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CASE REPORT

A case of necrotising pancreatitis, treated with surgery, a large two-way drain and plunger irrigation with povidone-iodine and saline

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INTRODUCTION

Pancreatic necrosis with sepsis is a serious complication of pancreatitis and needs surgical intervention,[1] which can be challenging,[2] especially when the presentation is unusual and the key equipment (contrast-enhanced computed tomography) is not functioning. The following case happened 28 years ago, with well-trained staff, 3 years before the first Canadian hepatobiliary surgeon emerged. Sudden critical situations, back then, and now, still happen. The air transport from the place of the acute occurrence to the tertiary care centre has not changed significantly. The writer had just finished her Canadian surgical residency but had worked as a surgeon in a rural solo practice in Canada before the Canadian residency.

The percutaneous long lavage system is known to decrease the frequency and mortality of pancreatic sepsis in severe acute pancreatitis.[3] This peritoneal lavage was initially added as a post-operative help[4] but is also reported as the primary and, at times, only surgical intervention.

Antibiotics are reserved for severe septic episodes of pancreatitis.[1] New antibiotics are not coming readily on the market as they did in the past. We need to think of new ways to combat septic events.

Iodine is prevalent in seawater at approximately 50 µg/L. Chemically stable iodine is commercially available in a water-soluble polymer called polyvinylpyrrolidone, now commonly called povidone. A systematic review of 27 randomised clinical trials reported various wounds and compared antiseptic wound agents. Iodine proved significantly better than other antiseptic agents. Even with an elevated serum level, it does not show harmful effects on the thyroid or the wound healing process.[5] Therefore, it retains its place in modern antiseptic agents and is the recommended antiseptic in the following cases: gynaecology and obstetrics, urology and surgery for the perineum. The 1% solution has an increased bactericidal effect.[6] Further use includes fistulas, open abdomen[7] and even eye surgery. In rats, iodine was instilled in the peritoneal cavity after exposure to

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seawater and reduced endotoxins and tumour necrosis factor, thereby reducing the development of septicaemia.[8]

CASE REPORT

A 39-year-old previously healthy man presented to our regional community hospital, 800 km from the tertiary centre, with difficult-to-diagnose pancreatitis. His only initial symptom was left lower quadrant pain. His vital signs and the physical examination were normal. The abdomen was soft and non-tender, and bowel sounds were heard. The routine blood tests as for a patient with abdominal pain were: white blood count elevated to 28000, serum sodium at 139mmol/L, potassium 5.2mmol/L, blood urea nitrogen 4.8mmol/L, creatinine 122mmol/L, liver function, calcium and amylase were normal. His arterial blood gases showed a metabolic acidosis. The serum glucose was 18mmol/L and the urine revealed ketones, although he had eaten earlier that day.

Thinking he had possibly diabetic ketoacidosis he was admitted by Medicine and received copious amounts of IV fluids.

The only computed tomography (CT) scanner, then 3 years old, was not functioning. An abdominal series showed a normal bowel pattern without any indication of intra-peritoneal fluid. An ultrasound scan did not detect any abnormality either. The initial laboratory tests are shown in Table 1.

The patient developed more pain involving his upper abdomen. He vomited blood over the next 6–8 h and underwent an upper gastrointestinal endoscopy. The gastroenterologist saw a possible mass within the stomach. After the endoscopy, the patient had peritoneal signs. Transport to the tertiary centre 800 km away was out of the question (the average time from an air transport request to the arrival of the patient was 14 h). The patient was taken to the operating room (OR), and was found to have acute pancreatitis, creating a hole in the posterior wall of the stomach. The stomach mucosa around the perforation was quite swollen and had created mass-like oedema on endoscopy. The transverse colon was necrotic, but the left lower quadrant looked normal.

After resection of the transverse colon, creating a mucous fistula and colostomy, the pinhole in the stomach was excised to a healthy stomach wall and then closed in layers. Omentum was buttressed over the stomach repair. A peritoneal lavage system was created to soothe pancreatic inflammation. A drip with 0.45% saline was directed over the surface of the reddened pancreas while two suction drains were collecting in the more dependent areas [Figure 1].

Postoperatively, the patient improved after 1 day of ventilation and developed interest in what had happened to him. The pathology confirmed necrosis of the transverse colon.

Table 1: Ranson's criteria for pancreatic necrosis

Parameter	Criteria	#Points	Patients data	#of points
Age	>55	1	39	0
WBC	>16000	1	28000	1
LDH	>350 IU	1	294	0
AST	>250 IU	1	47	0
Glucose	>11.1 mmol/L	1	18	1
After 48 hours				
HCT drop	10% drop or >	1	36%	1
BUN rise	>1.8 mmol/L	1	0.72	0
Calcium	<2 mmol/L	1	1.71	1
O2	<60 mm Hg	1	50 mm Hg	1
Base deficit	>4mEq/L	1	11	1
Fluid sequestration	>6000ml	1	12000 ml	1
Total		11		7
Mortality				
0-2 points. 0-3%				
3-5 points. 11-15%				
6-11 points. >40%				

LDH: Lactate dehydrogenase, AST: Aspartate Aminotransferase, HCT: Hematocrit, BUN: Blood uea nitrogen, WBC: White blood count

The entire family and the author discussed transfer to our tertiary centre repeatedly over the next 2 weeks. It was a time of deep soul searching. The author of this article (JR) was in the 1st year of independent practice as a Canadian fellowship surgeon. Before the Canadian surgery training, the author had trained in Europe and had also been in practice as a solo general practitioner (GP) surgeon in an isolated area but had the opportunity to discuss difficult cases with the previous preceptors. A year as chief resident only the year before had given the author much opportunity to treat the sickest of the sick. Patients with necrotising pancreatitis treated with peritoneal lavage were a familiar situation. They had all recovered slowly but had needed time and diligence. Even the rural hospital at the time had supportive internists and anaesthetists familiar with intensive care unit patients. Teachers were only a phone call away.

The entire family preferred him to stay. The patient's children attended school and visited every other day. The CT scanner, once repaired, revealed a poorly defined pancreas and a homogenous fluid collection behind the tail of the pancreas. The patient seemed to improve for 2 weeks and then suddenly became unstable with peritoneal signs. The CT scan reported: a left sub-diaphragmatic abscess collection and a gastric perforation around the greater curvature. The pancreas was poorly defined, diffusely enlarged and poorly marginated with increased density throughout the retroperitoneum and mesenteric fat.

Back to the OR: the stomach had opened along the greater curvature. Three-quarters of the necrotic pancreas and the spleen, infested with an anaerobic infection, were removed. The stomach was re-sutured with thick non-resorbable material (2/0 Nylon). A large soft Saratoga drain was inserted into the basin of the previous pancreatic body, which was already covered with granulation tissue surrounded by a 4 mm rim of a borderline viable pancreas. Irrigation of warm 0.45% saline coming through the two-way drain was recreated. The wide Saratoga drain allowed little chunks of tissue to come out. A gastrostomy tube and a small bowel (SB) feeding tube were set in place. An SB suction of the second part of the duodenum, leading through another gastrostomy aspirated bile and pancreatic juice, was then added into a SB feeding tube further downstream [Figure 2]. The pathology reports confirmed the necrotic pancreas and spleen full of air bubbles due to the anaerobic infection.

For several weeks, the patient improved again until the drainage fluid became thicker. Signs of infection led to the usual workup (blood cultures, CT scan not contributing and line change). The patient was started on antibiotics. A subtle smell from the Saratoga drain was noticed.

Then, the central lumen of the Saratoga drain was irrigated with a 60 mL syringe filled with body-warm normal = 0.9% Saline. The plunger was moved back and forth to loosen necrotic tissue. After aspiration of the turbid returning fluid the content was discarded. This procedure was repeated twice, first using 0.9% Saline mixed with Povidone iodine 1% in a 9:1 mix (45mL Saline with 5mL povidone iodine) and then using warm Saline. The patient's sepsis subsided within 15 min after a small piece of tissue was retrieved with the to-and-fro motions. It worked on three different occasions and saved the patient a trip to

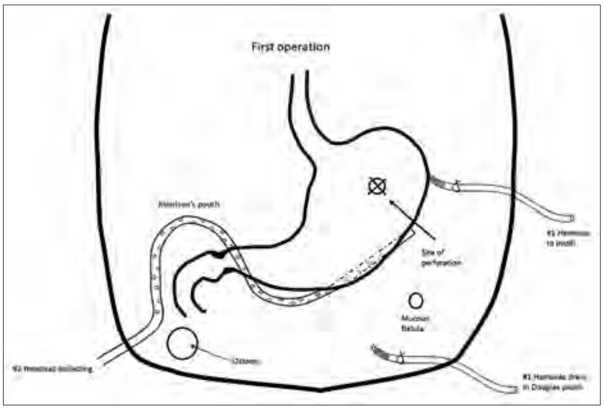

Figure 1: First operation.

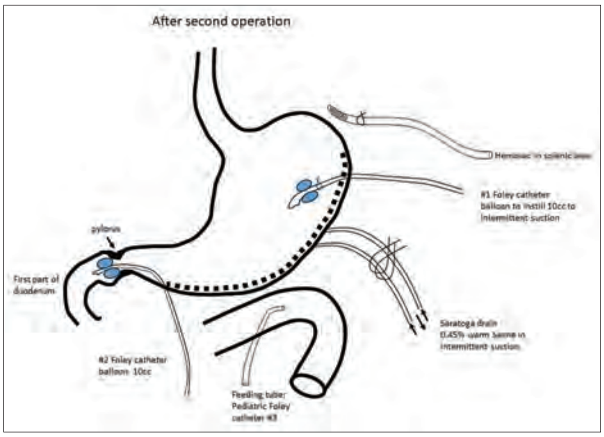

Figure 2: Second operation.

the OR. Instead of ordering a CT on the second and third occasions, the drains were sniffed for a suspicious smell. Then, the saline/iodine method was performed, which worked.

The patient was never in cardiac or renal failure despite extensive necrosis. After several months of hospital stay, he remembered a distant fall from a scaffold 3 weeks before he came to the hospital. This might have been the cause for pancreatitis as he had no gallstones and was not consuming alcohol to explain the cause for his illness. As the drainage cleared, the irrigation could be tapered down and stopped. He was discharged after a total of 8 months in the hospital. The family preferred him to stay in our local community facility.

Six months later, his ascending was reattached to the descending colon. He now tolerates food without enzymes but developed insulin-dependent diabetes, controlled with the pump. Every 5 years, he gets his immunisations for pneumococcus, meningococcus and *Haemophilus influenzae*. As his father had colon cancer, he returned for a colonoscopy.

DISCUSSION

General surgery in remote rural areas remains challenging, especially with non-functioning equipment. In addition, air transport from rural areas to tertiary care centres has been an ongoing issue and has not improved over the years. Often, patients suppress their aches and then present at advanced stages with complicated pathology. Certain cases of necrotic pancreatitis do not need countless trips to the OR. The OR time is now extremely limited in rural areas.

Once there is an infected necrotic area, surgical drainage is advised. In necrotising pancreatitis, using peritoneal irrigation is an accepted way to assure gradual drainage of pancreatic secretions and debris. While using the peritoneal two-way lavage system for pancreatitis, febrile episodes can occur. Checking for a suspicious odour from one of the drainage tubes might be helped by intermittent irrigation with diluted warm povidone-iodine[8] followed by warm saline. If this action is effective, it saves medical imaging, trips to the OR and aggravation of the patient, besides the associated costs. Once the Saratoga drain allows fluid to exit the inflamed area, it is essential to keep irrigating with a high flow rate[9] to avoid thick drainage becoming occlusive. Povidone-iodine has been found to be toxic in experimental animals if given in a dose of 4 ml/kg. The patient involved got 0.07ml/kg (5 mL).[10,11] The liquid was barely tea colour. Even the paediatric literature saw a decreased rate of intra-peritoneal abscess after irrigation with povidone-iodine for perforated appendicitis.[12]

In the author's (JR) original training in Europe, the residents were scrubbing with iodine and were tested for the serum content of iodine. Even if it was elevated, no changes in thyroid function were found. The author (JR) spent 18 months in a surgical service in Canada before entering a GP and solo surgical practice but from there got an opportunity for a 'real Canadian surgical residency'.

Since this case occurred, the surgical approach to debridement of pancreatic necrosis has been refined using minimally invasive surgery, which seems to be physiologically less disturbing. Amongst those methods,[13] delayed debridement[14] had the highest probability of being the safest approach. Good clinical observation[15] and examination are of utmost importance while plunger irrigating to-and-fro loosens necrotic tissue.

CONCLUSION

This case report is for the clinically experienced rather than surgical beginners. The treatment described was most fitting for this patient. Judgement and discretion are advised.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given his consent for his images and other clinical information to be reported in the journal. The patient understands that his name and initials will not be published and due efforts will be made to conceal his identity, but anonymity cannot be guaranteed.

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THE OCCASIONAL

The Occasional rural sim

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INTRODUCTION

The importance of sims

Medical simulations (sims) of various forms are among the most valuable educational tools available to medical education programmes and practising healthcare teams.[1,2] Simulations provide a safe environment for the improvement and maintenance of skills for new and experienced care providers, thereby improving patient care and safety.[1,2] A meta-analysis by McGaghie *et al*. found that simulation-based educational activities were more effective than traditional clinical education in teaching a wide variety of clinical skills, such as advanced cardiac life support.[3] They have also been shown to improve teamwork and interpersonal and interprofessional skills.[4,5] By helping practitioners improve in such varied ways, simulation-based medical educational activities enhance local competence and confidence.[1,4,6] Of importance for rural hospitals, simulations allow staff and learners to practise skills in high-acuity, low-frequency scenarios – increasing their confidence and potentially facilitating physician retention.[7]

Sims in rural environments

Providers in rural environments face multiple barriers to taking part in simulation experiences. Simulation centres and trained simulation facilitators are often located in urban environments, making them difficult to access for rural providers and their healthcare teams. In fact, one study among rural Manitoba healthcare providers found that 80% of providers had 'very limited' or 'no' access to high-fidelity simulation tools.[8] Due to staffing shortages, it can also be difficult for rural practitioners to find time to receive formal simulation training. Finally, simulations can be very resource-intensive (especially high-fidelity sims), entailing cost and time demands that rural healthcare teams seldom have the financial or human resources to meet.[9] However, there is good evidence that low-fidelity simulations – which have significantly decreased resource demands and are thus much better suited to rural environments – can be effective learning tools.[10] In fact, low-budget and low-fidelity simulations have been shown to be just as effective as their more expensive counterparts in many situations.[10,11] There exist multiple online tools (see page 139 under Online Tools for Rural Simulations) that provide access to simulation scenarios and educational resources. They can help rural practitioners overcome these barriers and deliver effective simulations in rural environments.

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THE PROCEDURE

Planning for simulations

Before starting simulations in your setting, you should first discuss it with your healthcare team:

1. Goals: What do people feel they would want to learn/practise using simulations?
2. Schedules: How often do people want to engage in simulations (once a month and biweekly)?
3. Expectations: How will facilitation responsibilities be distributed? What are the expectations around participation? What are some initial ground rules that should be in place?

Having these discussions will help ensure that your simulation activities are directly in line with local learning goals and schedules, which should improve participation and buy-in from staff and learners.

Following this discussion, you should:

1. Schedule your first simulation session: Ensure you dedicate ample time for pre-briefing and debriefing the participants. As a general rule, the debrief should be at least as long as the scenario itself
2. Find a scenario to use for your simulation: You can create your own – either *de novo* or based on previous experiences – or you can access free online sources for scenarios (see section on page 139 Online Tools for Rural Simulations)
3. Prepare for the simulation: Spend time reviewing the scenario to become comfortable with the content, and gather the necessary materials.

Starting the simulation activity: The pre-brief

Before beginning the simulation, it is critical for the facilitator – who can be any interested member of the healthcare team – to conduct a pre-briefing with the participants.[12,13] This serves as the foundation of the simulation learning experience, as it sets the stage for the learning and reflection that will take place over the course of the activity, maximising the learning experience.[12,13] By introducing participants to the activity and filling them in on the logistical aspects of the sim, it allows them to focus on the learning at hand.[12] Moreover, effective pre-briefing creates a psychologically safe space for learning, where learners feel comfortable making mistakes and are motivated to learn.[14] There are a few key points that should be covered in a good pre-briefing, in order:[12-15]

1. Introductions
2. Discussion of the session's structure and objectives (of simulation and learner evaluation, if any)
3. Discussion of session logistics (time expected and breaks)
4. Clarification of expectations and basic ground rules during simulation
5. Establishing the expectations around the confidentiality of the sim session – 'What happens in the sim room stays in the sim room'
6. Establishing the 'fiction contract' – acknowledging the technical limitations of the simulation and committing together to act as though the simulation is real
7. Establishing simulation roles
8. Orientation to the simulation environment (room and equipment).

The simulation itself

The simulation itself can take many different shapes. For example, it could involve the repeated practice of a specific clinical skill, such as a cricothyrotomy on a task trainer, or a complex teamwork-focused clinical scenario, such as an emergency department team response to multiple trauma patients from a motor vehicle collision. It is up to the facilitator to determine what type of simulation would best suit the type of learning they are seeking and the appropriate level and type of fidelity (conceptual, psychological or physical) for the learning goals at hand.

In general, simulations are broken up into stages, with movement between stages dictated by time or the completion of certain 'trigger' actions by the participants. These stages are often accompanied by materials (X-rays, electrocardiogram results and ultrasounds) that can help enhance the realism and depth of learning of the simulation experience.

Figure 1 is a typical example of a scenario stage containing the following:

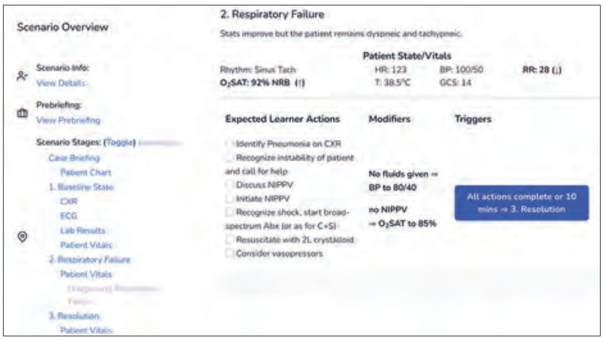
a. A roadmap of the simulation
b. Patient vitals at each stage
c. Checkboxes with expected learner actions
d. Modifiers to update patient status depending on simulation developments

e. Triggers to move to the next stage when appropriate
f. Facilitator notes (not pictured).

The facilitator's job is to help the learners progress through the scenario in a way that facilitates the achievement of the activity's learning objectives and allows the learners to apply their theoretical and practical knowledge in the context of the simulation.[15] This will involve the delivery of cues – both pre-determined and unplanned – to draw the participants' attention towards key pieces of information, help them clarify the simulated reality and redirect them towards the expected learning outcomes.[15]

Pre-determined cues are built into the simulation scenario to provide learners with information and guide scenario progression. For example, these can take the form of patient status updates, the provision of supporting materials or prompts from actors in the simulation.[15,16]

As a facilitator, you may find yourself having to provide unplanned 'life saver' cues when unexpected events or actions from the participants risk derailing the simulation experience.[15,16] Examples of such situations include: when learners misinterpret scenario information and begin management for a completely different condition than was intended, when learners miss critical scenario information or the failure/malfunctioning of critical scenario equipment.[16] As a facilitator, you should identify instances where such mishaps are most likely, plan for ways to minimise them and prepare to act when they arise to bring the simulation activity back on track.[16] It is best to deliver these 'lifesavers' in a way that maintains simulation fidelity, like using hints from simulation actors that emphasise or direct learners towards key information.[15] However, if you must, do not be afraid to pause the simulation to redirect and then restart it.[15]



2. Respiratory Failure

Stats improve but the patient remains dyspneic and tachypneic.

Patient State/Vitals

Rhythm: Sinus Tach
O₂SAT: 92% NRB (↑)
HR: 123
T: 38.5°C
BP: 100/50
GCS: 14
RR: 28 (↓)

Expected Learner Actions	Modifiers	Triggers
☐ Identify Pneumonia on CXR ☐ Recognize instability of patient and call for help ☐ Discuss NIPPV ☐ Initiate NIPPV ☐ Recognize shock, start broad-spectrum Abx (or as for C+S) ☐ Resuscitate with 2L crystalloid ☐ Consider vasopressors	No fluids given → BP to 80/40 no NIPPV → O_2SAT to 85%	All actions complete or 10 mins → 3. Resolution

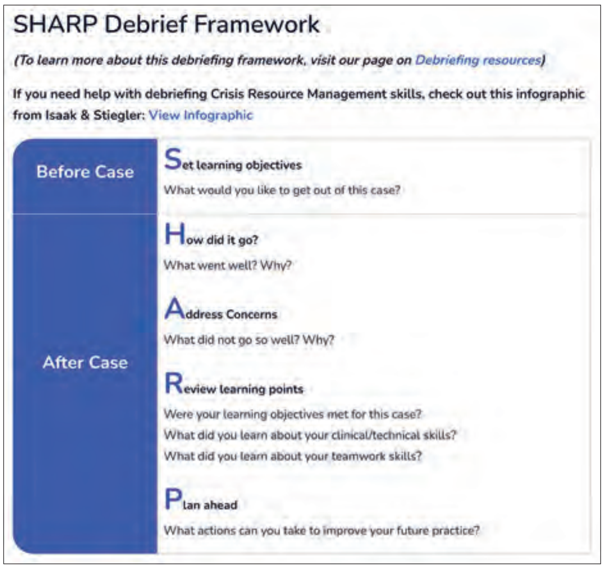
Figure 1: A typical simulation scenario stage extracted from practiss.ca.

Wrapping up the simulation activity: The debrief

Once the simulation is finished, you need to debrief. Debriefing is the 'heart and soul' of the simulation experience.[17] Without it, there has been shown to be very little clinically important learning that takes place in simulation-based educational activities.[18] Debriefing allows learners to reflect on their experience, promoting understanding and the transfer of knowledge and skills through the simulation activity.[19] Ultimately, no simulation activity should take place without a debriefing.[19]

Debriefing should follow a specific, structured framework – this will make it easier for you to effectively debrief your team and ensure that all the important aspects of debriefing are covered.[19] There are many different validated debriefing frameworks that can be found online and in scholarly journals – commonly used frameworks include PEARLS, GAS, Debriefing with Good Judgement, SHARP [Figure 2] and the Plus–Delta model.[18] The choice of which framework to use depends on a variety of different factors such as time available, type of simulation and facilitator experience.[19] In general, all of the debriefing frameworks involve at least:

1. Gathering initial reactions to the simulation
2. Reflecting on and analysing things that went well


SHARP Debrief Framework

(To learn more about this debriefing framework, visit our page on Debriefing resources)

If you need help with debriefing Crisis Resource Management skills, check out this infographic from Isaak & Stiegler: View Infographic

Set learning objectives
What would you like to get out of this case?

How did it go?
What went well? Why?

Address Concerns
What did not go so well? Why?

Review learning points
Were your learning objectives met for this case?
What did you learn about your clinical/technical skills?
What did you learn about your teamwork skills?

Plan ahead
What actions can you take to improve your future practice?

Figure 2: The SHARP debrief framework on practiss.ca.

3. Reflecting on and analysing things that could use improvement
4. Identifying takeaways from the activity.

After the simulation activity: Collecting feedback

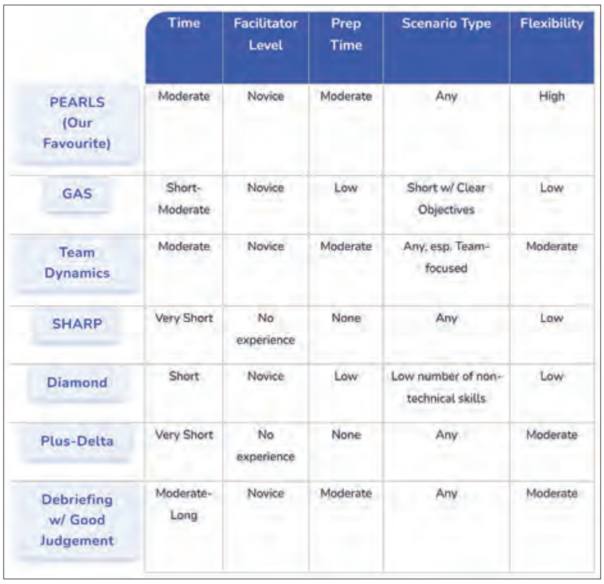
After the debriefing is done, it is important to collect feedback on the simulation activity as a whole. Collecting feedback from the participants is the best practice for simulation education,[20] both allowing for the improvement of the simulation scenario itself and for helping the facilitators improve their ability to run effective simulation experiences and debriefing activities.[18] This is of critical importance in rural environments, where facilitators may be inexperienced and untrained in simulation facilitation. For simulation activities delivered *in situ*, this is also a valuable opportunity to collect information on potential improvements or changes that could be brought to the care environment in light of the simulation activity. This feedback can be collected in a myriad of ways: through discussion, pen-and-paper written feedback or online polling among others. There is no literature supporting one method of feedback collection over another.

Online tools for rural simulations

There exist a number of free-to-use online tools to support the delivery of simulations in rural environments. For example, emsimcases.com and simulationcanada.ca both hold a large selection of peer-reviewed simulation scenarios and a wide variety of resources on medical simulation education more broadly. healthysimulation.com is also a valuable site for connecting to simulation resources, tools and education. With a special eye to the barriers and opportunities for rural medical simulation education, we, the authors, also created the online simulation tool Peer-Run Applied Cases for Teaching Interdisciplinary Simulations and Scenarios (PRACTISS), a free and open-access interactive simulation tool explicitly designed for rural environments. PRACTISS (accessible at practiss.ca) includes support for novice facilitators, a large repository of rural simulation scenarios, integrated evidence-based resources, feedback tools and ways for users to create and upload their own interesting clinical scenarios to the platform.

As it can be difficult to run debriefing activities as a novice facilitator,[18] visual guides for applying the simulation debriefing frameworks can be found online – on websites such as practiss.ca and healthysimulation.com – allowing novice facilitators to run effective debriefing activities for their group. To further assist novice facilitators in their debriefing activities, we have created a decision matrix, accessible at practiss.ca, to help facilitators decide which debriefing framework to use for their simulation [Figure 3]. PRACTISS also holds a visual pre-briefing guide to help novice facilitators set the stage for effective learning during simulation activities.

Simulation feedback can be collected through a variety of methods, either online, in-person or through a mixed-methods approach. One way to collect feedback online is through the use of anonymised Google Forms – however, we have found this can be a time-consuming process for the facilitator. Alternatively, PRACTISS has built-in tools for collecting feedback from both the facilitator and simulation participants, enabling the viewing of those results in real time. Using their mobile devices, participants can scan an auto-generated QR code displayed on the facilitator's device, which brings them to a webpage where they can anonymously provide Likert scale and written feedback on the activity, facilitator and facility – as well as enter their e-mail address



	Time	Facilitator Level	Prep Time	Scenario Type	Flexibility
PEARLS (Our Favourite)	Moderate	Novice	Moderate	Any	High
GAS	Short-Moderate	Novice	Low	Short w/ Clear Objectives	Low
Team Dynamics	Moderate	Novice	Moderate	Any, esp. Team-focused	Moderate
SHARP	Very Short	No experience	None	Any	Low
Diamond	Short	Novice	Low	Low number of non-technical skills	Low
Plus-Delta	Very Short	No experience	None	Any	Moderate
Debriefing w/ Good Judgement	Moderate-Long	Novice	Moderate	Any	Moderate

Figure 3: PRACTISS debrief framework selection matrix.

to receive an automated e-mail providing proof of participation for CME submission. Feedback results can then be viewed by the facilitator in real time.

CONCLUSION

Medical simulations are incredibly important educational tools, both for new learners and experienced clinicians alike.[2,4] However, there are many barriers that might prevent rural healthcare teams from taking advantage of the potential benefits of simulation activities, such as cost or training demands.[9,10] Low-fidelity and low-resource simulations can be an effective way to circumvent these barriers in rural environments.[9] Multiple free-to-use online tools, such as emsimcases.com, simulationcanada.ca and practiss.ca, exist to help facilitate the delivery of medical simulation experiences in rural environments. All of these tools provide access to simulation scenarios and educational resources and can help reduce the barriers to effective rural simulations.

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Conflicts of interest: The authors created Peer-Run Applied Cases for Teaching Interdisciplinary Simulations and Scenarios (PRACTISS), one of the free online simulation tools discussed in this article. That being said, we do not stand to benefit financially in any way from its use.

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LEARNERS’ CORNER

Underserved community versus underserved disease

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I was in high school in rural Southwestern Ontario when my mom became sick. She was a healthy and energetic nurse when almost overnight things changed. First, her joints started to swell and then she became so tired she could not get off the couch. Her local rural care providers ordered every test imaginable, but everything was ‘normal’. She was seen by specialists, and tried many treatments but nothing addressed her debilitating fatigue.

Over the last 13 years, her energy has fluctuated. She retired early and gave up her volunteer roles. There were times she felt ‘okay’ and would end up ‘overdoing it’, resulting in days or weeks on the couch. At times, she was so unwell she needed help with bathing and she would rest on the floor while going from the couch to the kitchen to make a cup of tea. Our family always felt that if only we lived in a bigger centre someone would be able to diagnose and cure my mom.

I graduated high school near the beginning of her illness and pursued medicine hoping to find her a diagnosis. However, nothing I learned in class or saw on rotations explained her symptoms. It was not until another family member developed similar symptoms after a viral illness that the pieces came together. This individual was diagnosed with myalgic encephalomyelitis (ME), also known as chronic fatigue syndrome.

I now know ME is a complex, chronic illness which the World Health Organization specifies as a post-viral neurological disease.[1] The prevalence is 0.42%–2.8% depending on the case definition,[2] and sources from the United States suspect that 90% are not diagnosed.[3] The hallmark feature is post-exertional malaise, which is the worsening of symptoms after cognitive or physical exertion. It is a clinical diagnosis requiring severe fatigue lasting more than 6 months, post-exertional malaise, unrefreshing sleep and either impaired memory/concentration or orthostatic intolerance.[3] There is no cure for ME. Staples of care include energy management and symptom-based therapies.[4] Patients are known to have a poor quality of life[3,5] and over 25% of patients are bedbound.[3] Unfortunately, the disease has been underfunded for decades and many providers are unaware of this diagnosis, leading to misdiagnosis and mismanagement.

Now that I am wearing the white coat, I know her rural care providers had nothing to hide. There were no secret tests or cures in the city either. Her care providers just did not know, like many doctors across Canada. You cannot diagnose something if you have

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never heard about it. Recently, my mom revisited her symptoms with her new family physician and was finally diagnosed with ME. While the diagnosis does not change her prognosis, it has provided her comfort in better understanding her symptoms and knowing how to manage her limited energy. As rural physicians with broad sets of knowledge and skills we are well-positioned to help these underserved patients, even if we practise in underserved communities. Going forward, I hope more physicians will add this diagnosis to their differential.

Acknowledgement: Thank you to the rural health care providers who provided care to my family members along their illness journeys and thank you to the patients who continue to teach me about ME/CFS through their life experiences.

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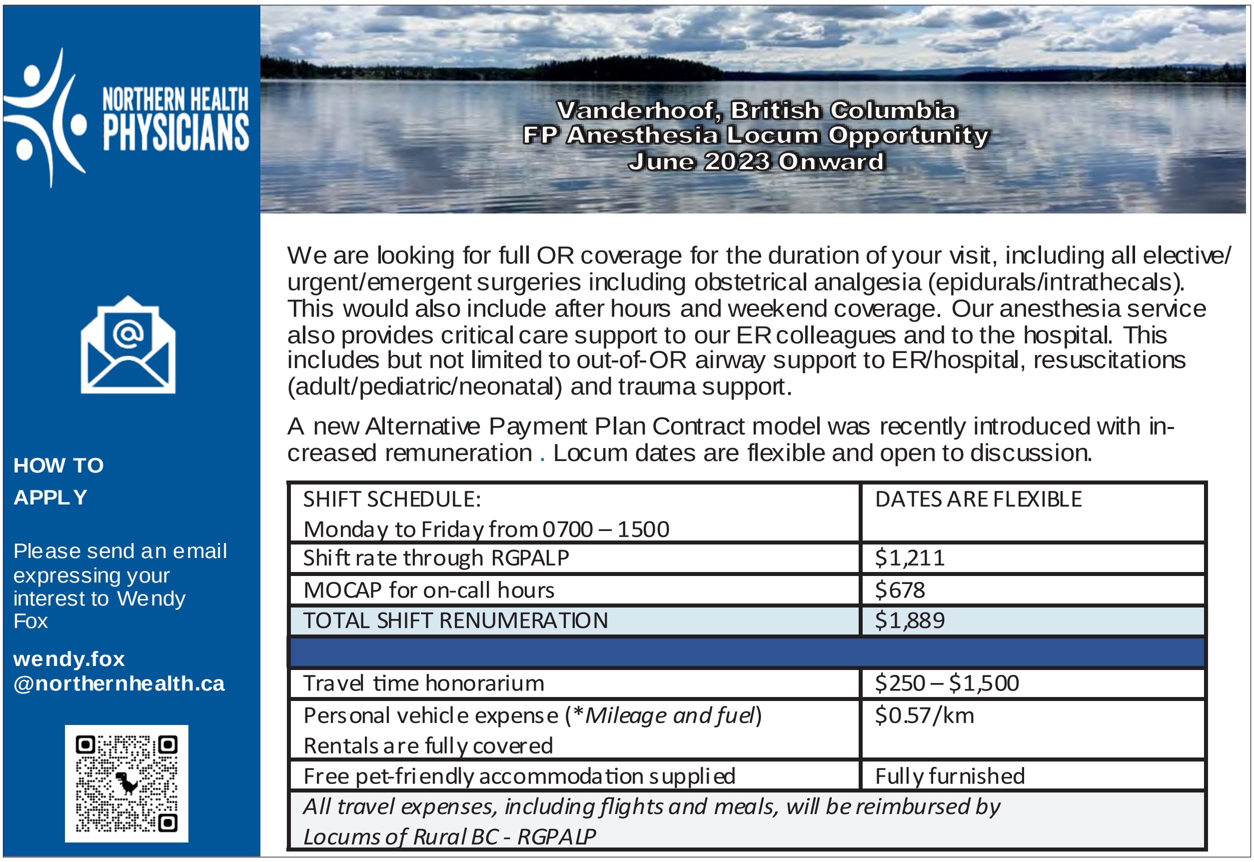

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June 2023 Onward

We are looking for full OR coverage for the duration of your visit, including all elective/ urgent/emergent surgeries including obstetrical analgesia (epidurals/intrathecals). This would also include after hours and weekend coverage. Our anesthesia service also provides critical care support to our ER colleagues and to the hospital. This includes but not limited to out-of-OR airway support to ER/hospital, resuscitations (adult/pediatric/neonatal) and trauma support.

A new Alternative Payment Plan Contract model was recently introduced with increased renumeration . Locum dates are flexible and open to discussion.

SHIFT SCHEDULE: Monday to Friday from 0700 – 1500	DATES ARE FLEXIBLE
Shift rate through RGPALP	$1,211
MOCAP for on-call hours	$678
TOTAL SHIFT RENUMERATION	$1,889
Travel time honorarium	$250 – $1,500
Personal vehicle expense (**Mileage and fuel*) Rentals are fully covered	$0.57/km
Free pet-friendly accommodation supplied	Fully furnished
All travel expenses, including flights and meals, will be reimbursed by Locums of Rural BC - RGPALP	

HOW TO APPLY

Please send an email expressing your interest to Wendy Fox

wendy.fox @northernhealth.ca

SOCIETY OF
Rural Physicians
OF CANADA
SOCIÉTÉ DE LA
Médecine Rurale
DU CANADA

JOIN THE SOCIETY OF RURAL PHYSICIANS OF CANADA

Enjoy your member benefits while championing rural medicine.

Advocate and Learn:
Advocating passionately on your behalf to bring about the change you deserve, while also providing you with learning resources to empower and equip you for success.

Expand your Network:
Connect with other rural physicians for success.

Become a Mentor
Help inspire and support the next generation of rural physicians.

Become a Mentee
Connect with experienced mentors to enhance your ability to provide top-quality care in rural areas.

For a full list of member benefits visit SRPC.CA

FOLLOW US ON SOCIAL MEDIA

Mentor
Program

Make a difference in the future of rural medicine!

Become a mentor
Help inspire and support the next generation of rural physicians by offering valuable learning experiences outside of traditional academic settings. Contribute to the current and growing need of rural physicians in Canada.

A pathway to your rural medical future!

Become a mentee
With the SRPC Mentor Program, you'll get the chance to gain invaluable knowledge, develop key competencies, and build lasting relationships that will help shape your future career as a rural healthcare provider.

SOCIETY OF
Rural Physicians
OF CANADA

For more information contact
Dianac@srpc.ca

Hay River Health and Social Services Authority
Administration des services de santé et des services sociaux de Hay River

Come, explore the North!

WE HAVE FAMILY/GENERAL PRACTITIONER OPPORTUNITIES IN **HAY RIVER, NORTHWEST TERRITORIES** WAITING FOR YOU!

NWT physicians are provided with a unique salaried contract, with one of the best compensation packages in the country!

Benefits for **full-time** Family Physicians include *(but not limited to)*:

- **Unique salaried contract,** with one, two, and three-year options
- *Up to* $1,090,836 in gross earnings ***(approximate)*** **over a 3-year contract**, based on full range of coverage, including:
    - **Attractive Annual salary**
    - **Recruitment Bonus**
    - **First time Signing Bonus**
    - **Annual Retention Bonus**
    - **Annual Northern Living Allowance**
    - **Retirement income benefits**
    - **No overhead, practice management, or billing with salaried contract Liability, travel, and malpractice insurance costs covered 100% of**
    - **Northwest Territories CMPA Membership Fees Covered Paid vacation**,
    - starting at 26.5 days per year
    - **Paid sick leave**, starting at 18 days per year
    - **Paid maternity & parental leave**
    - **Paid Call-Backs**
    - **Support for professional fees** and educational materials *($4,000 per year)*
    - **Continued Medical Education (CME)** support for travel & reimbursement I expenses *(up to 16 days, $13,000 per year)* **Relocation Assistance** for your &
    - your family **Group benefits**, including dental, extended health, life, AD&D, and
    - Disability.

Are you looking for a challenging & rewarding **Family/General Practitioner** career with a manageable caseload all the while surrounded by breathtaking scenery and absolutely no traffic or lengthy commute to work?

This can be the perfect work - life balance for you!

Hay River is a community of around 4,000 people on the shores of Great Slave Lake, and we're looking to build a full compliment of 5 Family Practitioners. We are seeking both **locum and permanent** physicians to fill those positions.

This is a great opportunity for you & your colleagues or friends to come up and experience an adventure of a lifetime! Come as a locum to try it out for a week or two, or how about 1, 3, 6, 12 months or more, **or** sign on permanently! We have an amazing team of rotational locum physicians as well as hardworking Nurse Practitioners and Registered Nurses to support you. This is an opportunity to try a varied caseload, with lots of flexibility.

Contact:
HRHSSA_Physician-Recruitment@gov.nt.ca
or call (867) 874-8343 or 875-8764

NORTH VANCOUVER ISLAND, BC
FAMILY PHYSICIAN
Cormorant Island | Port Alice | Port Hardy | Port McNeill

WHY CHOOSE NORTH VANCOUVER ISLAND?
These rural communities offer quiet living among some of Canada's most beautiful landscapes. The pristine and rugged landscapes with rich cultural, wildlife and recreational experiences are waiting to be discovered.

Great Compensation, Benefits & Low Overhead
- Choose your compensation model: Fee-for-Service, contract or BC's new payment model - LFP
- Recruitment Incentive of $20,000, Relocation up to $12,000, Flat Fee $25,624.44 & Fee Premium 22.26%

Plus some of the most affordable housing on Vancouver Island!

Your career can be demanding...why not consider a location where the benefits are *naturally* distracting?

CONTACT US TODAY
medstaffrecruitment@islandhealth.ca

island health

LONGLAC
ONTARIO
LONGLAC 60th ANNIVERSARY SUMMERFEST

Interior Health

FAMILY PHYSICIAN OPPORTUNITIES

WILLIAMS LAKE • MERRITT

Looking for opportunities in the interior of British Columbia with new payment model options for Family Practice Physicians?

Come and join us in our world renowned vacation destination.

We have what you are looking for!

A Challenging Career - A Balanced Lifestyle - A Four-Season Playground

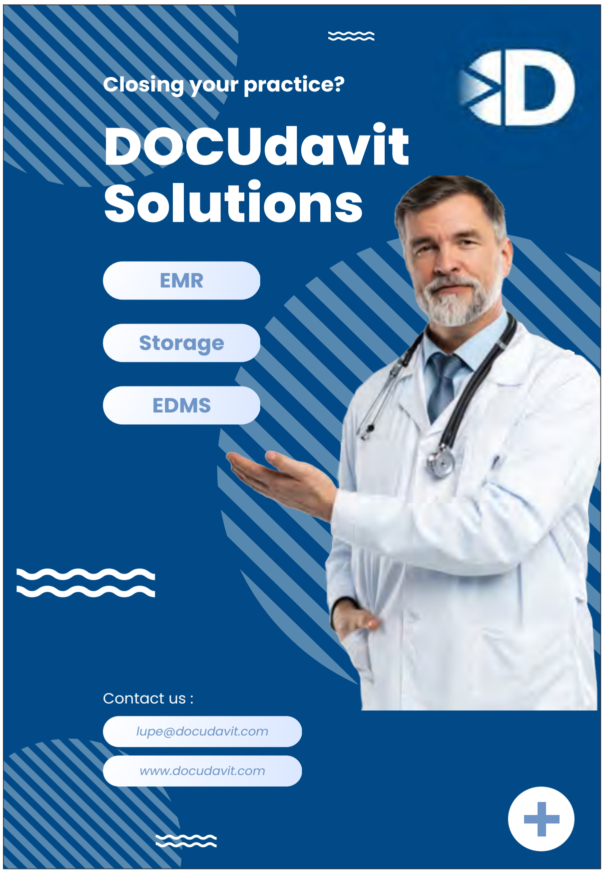
Exciting career opportunities are available for Family Practice Physicians in welcoming communities. Join us in *Williams Lake* in the Cariboo region or *Merritt* in the Nicola Valley for a fulfilling experience that offers work-life balance and diverse practice options. Locum opportunities are encouraged to explore the area before committing long-term. Enjoy breathtaking landscapes, outdoor activities, cultural treasures, and a supportive healthcare community. Williams Lake offers stunning scenery, outdoor pursuits, and a vibrant arts scene. Merritt boasts natural beauty, hiking and biking trails, fishing, boating, rock climbing, and a rich cowboy heritage with the Canadian Country Music Hall of Fame. Discover the charm and adventure that awaits in these remarkable destinations.

Email *Physician Recruitment* with any queries or to express your interest.

View the full *Williams Lake* and *Merritt* job postings for more detail.

BETTERHERE.CA

PHYSICIANRECRUITMENT@INTERIORHEALTH.CA



National Advanced Skills
and Training Program
for Rural Practice
Optimizing rural care

SOCIETY OF
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DU CANADA

Équipe
de soins primaires
FORMER POUR TRANSFORMER
Team
Primary Care
TRAINING FOR TRANSFORMATION

Are you a rural physician interested in advanced training?

The **Society of Rural Physicians of Canada** will reimburse advanced training for practicing rural physicians including specialists, based on the specific needs of rural, remote and Indigenous communities across Canada. Examples of training to improve skills could include emergency medicine, general surgery, obstetrical care, anesthesia, etc.

Rural physicians may receive funding up to $35,000 for:

- income stipend, travel, accommodation, locum and preceptor.

APPLY NOW!

To register scan QR code or visit
https://srpc.ca/advanced-training

If you are interested in training but do not have a preceptor, please contact **kristenk@srpc.ca.**

Are you interested in being a preceptor?

REGISTER NOW!

To register scan QR code or visit
https://srpc.ca/event-5203406

LOCUM OPPORTUNITIES

FIND YOUR EXTRAORDINARY AT WAHA

Weeneebayko Area Health Authority
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ABOUT WAHA

The Weeneebayko ("Two Bays" – James Bay and Hudson's Bay) Area Health Authority (WAHA) provides medical services to 6 communities on the shore of James and Hudson's Bay; Moose Factory, Moosonee, Fort Albany, Kashechewan, Attawapiskat and Peawanuck. The population of the West Coast of James Bay is approximately 12,000 people; Primarily First Nations. The hospital is located in Moose Factory.

COVERAGE AND COMPENSATION DETAILS

Effective July 1, 2023 - September 30, 2023

Emergency Department Coverage

- 12 hour ED shifts (day or night) changing at 8AM or 8PM
- $3000 daily stipend
- Travel time reimbursement of $971 each way

Hospitalist Coverage

- Inpatient coverage from 8AM – 8PM daily
- $2100 daily stipend
- Travel time reimbursement of $971 each way

Primary Care Coverage

- Weekday family medicine clinics from 9AM – 5PM
- $1100 daily stipend
- Travel time reimbursement of $971 each way

Travel and accommodation expenses for all locum opportunities are covered by WAHA.

If you have the availability to assist, please contact:

Dr. Elaine Innes
Chief of Staff
Weeneebayko Area Health Authority
Mobile: 705-288-9271
Email: Elaine.Innes@waha.ca

Jaime Kapashesit
Physician Services Coordinator
Weeneebayko Area Health Authority
Phone: 705-658-4544 ext. 2237
Email: Jaime.Kapashesit@waha.ca

Programme national de formation et compétences avancées pour la pratique rurale

Optimiser les soins des régions rurales

SOCIETY OF Rural Physicians OF CANADA
SOCIÉTÉ DE LA Médecine Rurale DU CANADA

Équipe de soins primaires FORMER POUR TRANSFORMER
Team Primary Care TRAINING FOR TRANSFORMATION

Êtes-vous un médecin en milieu rural intéressé par une formation avancée?

La Société de la médecine rurale du Canada (SMRC) finance des opportunités de formation pour les médecins ruraux, y compris les spécialistes, permettant ainsi aux médecins de répondre aux besoins spécifiques des communautés rurales, éloignées et autochtones partout au Canada. Des exemples de formation pour améliorer les compétences peuvent comprendre la médecine d'urgence, la chirurgie générale, les soins obstétriques, le traitement de la toxicomanie, l'anesthésie, etc.

Les médecins ruraux peuvent recevoir jusqu'à 35 000 $ de financement pour:

- d'allocations de revenu, de déplacement, d'hébergement, de dépannage et de précepteur

FAITES UNE DEMANDE MAINTENANT!

Pour vous inscrire, scannez le code QR ou visitez
https://srpc.ca/formation-avancee

Si vous êtes intéressé par une formation mais que vous n'avez pas de précepteur, veuillez contacter **kristenk@srpc.ca.**

Êtes-vous intéressé à devenir précepteur?

INSCRIVEZ-VOUS MAINTENANT!

Pour vous inscrire, scannez le code QR ou visitez
https://srpc.ca/event-5203406

The Society of Rural Physicians of Canada is proud to acknowledge the achievements of our 2023 Rural Award Recipients.

Congratulations!

Lifetime Member Award

Dr. Karen Forgie, Halfmoon Bay, BC
Dr. Yvon Gagnon, Vermillon Bay, ON
Dr. James Goertzen, Thunder Bay, ON
Dr. Robert Nugent, Fort Frances, ON

Fellowship of Rural and Remote Medicine of the SRPC (FRRMS)

Dr. Ryan Falk, Chilliwack, BC
Dr. Katie Forfar, Laurentian Valley, ON
Dr. Samantha Harper, Happy Valley-Goose Bay, NL
Dr. Sarah Lespérance, Petitcodiac, NB
Dr Mark Saul, Chelsea, QC

Rural Medical Student/Medical Resident Leadership Award

Simona Bene Watts, Victoria, BC
Allison Best, St. John's, NL
Dr. Andréa Brabant, Yellowknife, NT
Dr. Natalya O'Neill, Mount Forest, ON

Rural Service Award

Dr. Amanda Bergman, Winkler, MB
Dre Coralie Boudreau, Concession, NS
Dr. Norma Charriere, Hiller, ON
Dr. Roderick Cheung, Kapuskasing, ON
Dr. Bruce Cook, Dryden, ON
Dr. Robert Greidanus, Peace River, AB
Dr. Amber Hayward-Stewart, Canmore, ON
Dr. Andreas Mostert, Revelstoke, BC
Dr. Robert Nugent, Fort Frances, ON
Dr Martin Papineau, Hearst, ON
Dr. Lyn Power, Burin Bay Arm, NL
Dr. Katherine Turner, Moose Factory, ON
Dr. Roohina Virk, Chilliwack, BC

Rural Long Service Award

Dr. Shaun Marshall, Wingham, ON
Dr. H. Susan McArthur, Walkerton, ON
Dr. Dave McLinden, Huntsville, ON
Dr Mark Saul, Chelsea, QC

National Rural Awards

Rural Leadership Award:
Dr. Trina Larsen Soles, Golden, BC
Rural Specialist Merit Award:
Dr. Robin Routledge, Duncan, BC
Rural Heart Award:
Dr. Emmanuel Abara, Richmond Hill, ON
Rural Mentorship Award
Dr. David Pontin, Yellowknife, NT
Rural Health Champion Award
Ms. Kim Williams, Vancouver, BC
Rural Community Impact Award
Dr. Eliseo Orrantia, Marathon, ON

Rural Medical Education and KEITH Awards

Memorial University

Rural Medical Resident/Student Essay Winners

Dr. Evelyne Guay, Burlington, ON
Mr. Daniel Pearce, Torbay, NL

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DU CANADA

For more details about SRPC Rural Awards visit
srpc.ca/Awards-Program