Past and future developments of rural residency programs in Canada: a way forward for the Interlake-Eastern Region and rural Manitoba

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Abstract

18% of the Canadian population lives rurally, yet only 8.5% of physicians practice in rural communities. Over the past 20 years, the College of Family Physicians of Canada (CFPC) has strived to improve access to health care for rural Canadians through increased development of rural residency training programs. Rural training for residents and undergraduate medical students has been shown to increase the likelihood that students and/or residents choose to practice in rural areas. Since 2011, all Manitoba regional health authorities have had rural Family Medicine residency programs offered through the University of Manitoba, with the exception of the Interlake-Eastern Regional Health Authority (IERHA). In July 2019, the IERHA accepted its first cohort of rural Family Medicine residents. Through an interview with the Interlake Eastern Family Medicine program director, Dr. Ian Alexander, and a brief review of the history of rural Family Medicine residency programs, this paper examines how a rural residency program may impact the healthcare in the IERHA.

Keywords: rural residency, family medicine, interlake-eastern regional health authority

The history and development of rural residencies in Manitoba and Canada

While approximately 18% of the Canadian population lives rurally, only 8.5% of Canadian physicians practice clinical medicine in rural communities (communities with ¡10,000 people).[1] While there is no single common definition of "rural," Statistics Canada defines rural communities as "the population living in towns and municipalities outside the commuting zone of larger urban centres with populations greater than 10,000."[2] In regards to medicine, rural practice is considered "practice in nonurban areas, [whereby] most medical care is provided by a small number of general practitioners and/or family physicians [who have] limited or distant access to specialist resources and high technology health care facilities."[3] Rural populations are faced with unique health challenges; this is due to decreased access to health care, exposure to harsher weather conditions, as well as increased occupational hazards associated with farming and mining. Furthermore, rural populations also tend to be older, less educated, and have a lower household income as compared to than those living in urban centers, all of which characteristics are associated with worse health outcomes.[4]

The challenge of retaining rural physicians in Canada is not novel. Twenty years ago, The College of Family Physicians of Canada (CFPC) acknowledged this concern, and published a report on the postgraduate education in rural Family Medicine that focused on recommendations for boosting the number of rural family physicians in the new millennium.[5] At that time, the CFPC reported that 30.3% of Canadians lived in rural areas, yet only 9.9% of physicians practiced rurally. The CFPC report recommended increasing the number of rural Family Medicine training programs in order to deliver training that would prepare physicians for rural Family Medicine practice. Motivating the development of more rural residencies programs was the recognition that the conditions of rural practice — including decreased access to specialists, less available medical technology, and unique health concerns — required rural practitioners to obtain a specific skill set, knowledge base, and attitude to provide optimal care. The CFPC recommended that rural Family Medicine training positions be available for application through CaRMS, identify specific rural community needs, and reflect rural health care requirements. As no national standards regarding rural training existed at the time, it was stated that students entering rural Family Medicine residencies would spend a minimum of six months of their two years of training in a rural centre, including a minimum of four months in one site to foster continuity of care. Additionally, over time, programs were developed that allowed residents to choose to become a family physician with enhanced skills in areas including but not limited to anesthesia, obstetrics, emergency medicine, and

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geriatrics. The CFPC Working Group recommended that communities with rural Family Medicine programs had a working hospital, were able to offer extensive clinic experience, and a curriculum based on the clinical realities of rural practice.

By 2013, substantial changes had been made to increase options accross the country for rural Family Medicine residency positions.[6] The number of rural training sites for Family Medicine residents increased from 25 to 86 (between 1998 and 2008), and the number of rural Family Medicine residency positions increased from 36 to 365 (between 1989 and 2013). However, despite this ten-fold increase in the number of rural Family Medicine residency positions, as well as the numerous incentives implemented by universities, governments, and communities to recruit family physicians to rural regions, the medical education system was nonetheless still unable to produce an adequate number of rural family physicians to serve rural communities.[6]

Recruitment and retention of physicians in Manitoba's rural and remote communities reflects the struggle seen across Canada.[7] Health responsibilities in the province are divided among five regional health authorities: Winnipeg (including Churchill) Regional Health Authority (RHA), Southern Health, Prairie Mountain Health, Northern RHA, and Interlake-Eastern RHA. Prior to July 2019, the University of Manitoba offered two urban Family Medicine residency programs (both in Winnipeg), a northern-remote program (various locations), and five rural Family Medicine residency programs (Brandon, Boundary Trails [Winkler/Morden], Parkland [Dauphin], Portage la Prairie, Steinbach). Through these various programs, Family Medicine residency has been offered in all Manitoba health authorities except the Interlake-Eastern since 2011; In July 2019 the Interlake-Eastern welcomed their first residents to their new program.

The Interlake-Eastern Regional Health Authority (IERHA) has a permanent population of 129,000 residents, and substantially grows beyond this in the summer months as tourists visit the lakes and beaches in the region. There are 10 hospitals in the region, 16 personal care homes, and 19 EMS stations throughout the 61,000km^2,[2,8]. The largest community in the IERHA is Selkirk, a town of nearly 10,000 people.[9] A new regional health centre was opened in Selkirk in 2017, and in June 2019 the region will accept the first two rural Family Medicine residents to be trained in the Interlake region. The IERHA reports that in other Manitoba regions, residents training in Manitoban rural residency programs develop connections to the community they are working in and often decide to practice as an attending family physician in the region. Other regions have and continue to see return rates of 70 to 80% because of the attachment doctors make to the community throughout two years of rural Family Medicine training.[10]

The future of medicine in the IERHA: An interview with Dr. Ian Alexander, MD, CFPC

Dr. Ian Alexander is a family physician who practices as part of the Selkirk Medical Associates group in the Selkirk Medical Centre and Selkirk Regional Health Center. Dr. Alexander graduated from the University of Manitoba, Max Rady College of Medicine in 2012. He completed his Family Medicine residency training in Dauphin, Manitoba prior to returning to his home community of Selkirk, Manitoba to practice medicine. Throughout his career, Dr. Alexander has demonstrated his passion towards medical education, as has acted as a preceptor for numerous students for exposures and electives in rural Family Medicine. His dedications towards medical education led him to become the Physician Lead in developing the new Family Medicine residency program in Selkirk, Manitoba. I have been fortunate to learn from Dr. Alexander throughout my undergraduate medical education and recently interviewed him regarding the future residency program in Selkirk.

Why did you want to start a residency program in Selkirk?

It was clear that no formal connection to the U of M existed in the IERHA when I started practice in 2014. I enjoy teaching and knew that I wanted to include that as part of my medical practice. In Selkirk there were occasional clerks, Rural Week students, and very few Home for The Summer students. It became clear that students wanted to spend time in our region, and that extrapolated well to expect that residents would be interested in our region. We know that residents and students help build a good environment for physicians and patients, and as a group we felt that having learners would help us. Not only would these learners help our day to day practice by challenging us and ensuring that we're up to date, but of course we hope to show the great opportunities that exist within our community and hopefully some of our learners will decide to join a local practice when they complete their training.

Is there a physician shortage in the Interlake? If so, how do you expect the introduction of a residency program to affect this?

Definitely. We are short physicians in all areas within in the Interlake Eastern Regional Health Authority. We see this with patients travelling long distances with the region, and potentially outside of the region to meet their primary care needs.

We are hopeful that the introduction of a residency program will help us recruit locally trained physicians to help meet the needs of our communities. While there is no formal return-of-service agreement, we are hopeful that the experience of working within the IERHA will encourage our residents and those trained in other Family Medicine programs to consider setting up prac-

tice in our region.

Why should students considering Family Medicine consider residency in the Interlake program?

We remain a great untapped resource for medical learners and subsequently offer the opportunity for excellent hands-on experiences for medical students and residents alike. Like many rural training programs, we offer excellent clinical learning without our students competing with large volumes of learners like in Winnipeg. We offer a great opportunity for students to experience the full variety of rural practice without having to be hours and hours away from the city.

How do you expect the rural residency program to change the way health care is delivered in Selkirk and the surrounding Interlake?

I strongly believe that a rural residency program will make the physicians more engaged, more team oriented, and more up to date in Selkirk and throughout the IERHA. This is a win-win-win for physicians, the community, and learners. Given that learners are trained in multi-disciplinary teams, the addition of a residency program will ensure that our practices grow in a collaborative, inter professional manner that can only help our physician colleagues, and our patients.

As our residents will be in Selkirk and throughout our health region we hope to have these changes impact Selkirk and all other communities that provide primary care. Within our region each community practices in a way that is most appropriate for its providers and population, and I hope that we can amplify what makes each community exceptional for its community members, and by this show our great region and what it can offer to any student who is interested!

The effect of rural exposure on rural recruitment

The physician recruiter for the IERHA, Ms. Lorri Beer, reports that to keep the emergency departments (EDs) within the IERHA open 24 hours a day and 7 days a week, the region would need to recruit over 20 physicians. She is confident that the new residency program will have a positive impact on recruitment to the region in the coming years, stating that "[by] offering our own program, we're integrating new doctors into our region earlier in their careers. Once they become fully licensed, they are already familiar with the region and its health concerns and internal processes. In essence, they have already established their own practice and they have the comfort of knowing what that practice looks like." [10] However, while increasing the number of rural residency positions provides more students with the option to train rurally, multiple studies have demonstrated that several factors influence the likelihood of rural practice prior to a medical student receiving their medical doctorate.

A recent study in New Zealand sought to determine factors that maintained medical student interested in working rurally by having students complete questionnaires upon entry into medical school and at time of graduation. The questionnaires focusing on demographics, career aspirations, and influencing factors. [11] Results of the study suggested the women raised in rural areas were the most likely to have rural intentions at entry to and exit from medical school. Furthermore, the study showed that the extent of interest in helping people, work culture typical of a discipline, and experiences during medical school are all factors that influence students' career decisions. Interestingly, students considering rural practice at both matriculation and graduation were comparatively less influenced by factors such as mentor influence, intellectual content of a specialty, and job security. [11]

A Canadian study of medical students matriculating between 2002 and 2004 found a strong positive relationship between career interest in rural Family Medicine at entry to medical school and post-residency rural practice as a family physician. [12] A recently published study involving cohorts of Manitoba medical students from a similar time period examined associations among current location of rural practice and frequency of access to rural-focused professional learning, finding that greater exposure to rural medicine predicted greater likelihood of rural practice. [13] Together, results of these studies suggest that students' perceptions of rural practice at the outset of medical school can influence the likelihood of eventually practicing in a rural area.

The Interlake Eastern Region of Manitoba continues to struggle to staff EDs and offer primary care to all residents. In offering a residency program the region hopes to recruit young physicians who will develop a positive relationship with the communities within, and consider continuing to work in the region following residency. Currently, many of the rural residency programs in Manitoba are relatively new, making is difficult to determine their long-term effectiveness in retaining rural doctors. The longest running program is the Parkland program. In this region the communities have become significantly better staffed when compared to two decades ago. In the future, the CFPC and Society of Rural Physicians of Canada should re-evaluate the growth of rural residency programs and determine their effectiveness at training adequate numbers of rural family physicians and improving rural health, particularly in smaller, understaffed communities such as those in rural and Northern Manitoba.

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