



ORIGINAL RESEARCH

The Healthcare Travelling Roadshow: a qualitative study of a rural community engagement initiative in Canada

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ABSTRACT:

Introduction: Youth from rural communities face significant challenges in the pursuit of healthcare training. Healthcare trainees with a rural background are more likely than those without to practice rurally as healthcare professionals. The Healthcare Travelling Roadshow (HCTRS) is an initiative in Canada that provides rural youth with exposure to healthcare careers, while providing healthcare students with exposure to rural opportunities, and an interprofessional education experience. To the authors' knowledge, this is the first description of an initiative for rural university–high school healthcare career outreach that involves near-peer teaching, highly interactive sessions, and an interprofessional focus.

Methods: Ten HCTRSs took place throughout northern rural and remote British Columbia between 2010 and 2017. Questionnaires were delivered to youth in a pilot research project in 2010. Healthcare students and community members completed questionnaires for ongoing program evaluation from 2010 to 2017. Quantitative elements were graded on a five-point Likert scale. Qualitative elements were analyzed thematically.

Results: Participants indicated that the program was very successful (4.71, 95% confidence interval (CI) 4.63–4.79), would likely encourage healthcare students to consider rural practice (4.12, 95%CI 3.98–4.26), and that it inspired local youth to consider careers in health care much or very much (4.45, 95%CI 4.35–4.55). Qualitative analysis led to description of four themes: (1) sincerity and interactivity sparking enthusiasm, (2) learning through rural exposure and community engagement, (3) healthcare student

personal growth and (4) interprofessional collaboration and development. Open-ended feedback identified successes outside of the primary goals and illustrated how this program could act in a multi-faceted way to promote healthcare recruitment and retention. Constructive comments emphasized the importance of taking a balanced approach to planning the HCTRS, ensuring the goals of the HCTRS are best met, while meeting the needs of the host communities as much as possible.

Conclusions: The HCTRS is an interdisciplinary experience that successfully engages rural youth, healthcare students, and community stakeholders. Participants consistently indicated that it encouraged rural youth towards healthcare careers and healthcare students towards rural practice. Success of the program requires meaningful engagement with multiple academic and community stakeholders.

Keywords:

Canada, community engagement, medical education, qualitative research, rural pipeline, university-high school outreach.

FULL ARTICLE:

Introduction

There have long been geographic maldistributions of healthcare professionals, which contribute to the health disparities experienced by rural peoples worldwide¹⁻⁴. This is particularly evident in countries such as Canada, where about 95% of the geography is rural⁵. While some 16.8% of the population of Canada lives in a rural environment, their health needs are served by only 8.2% of physicians⁶. This disparity is similarly observed in other countries and in other healthcare fields². Current evidence suggests students with a rural origin and students trained in a rural context are more likely to consider rural health careers⁷⁻¹⁶ yet rural candidates are underrepresented at medical schools, most of which are urban based^{7,17}. Efforts to deal with this maldistribution have led to the creation of a number of different models of distributed medical education, which collectively strive to increase the number of students training and practicing in rural locations¹⁸⁻²⁰. Students of rural origin face many barriers not shared with their urban counterparts in attaining admission to healthcare training^{9,17}. They are less likely to pursue post-secondary education and may be disproportionately underrepresented in health-related programs²¹. Rural youth are less likely to believe that they could gain admission to medical school and may also be relatively unaware of career options in health care, compared to their urban counterparts²².

Many different initiatives exist within the spectrum of rural healthcare pipeline programs^{23,24}. University-high school outreach programs are at the earliest stage of the pipeline, and there remains a relative paucity of initiatives that visit youth in their rural communities⁹. Some of the initiatives described previously include a Mini-Med School program that focused on interactive stations delivered by experienced clinician educators²⁵, a Mini-Med School focused on Indigenous youth, with interactive stations facilitated by medical students²⁶, a rural secondary school outreach program with both lectures and interactive stations facilitated by medical students²⁷, and a high school outreach for nursing student recruitment where practicing nurses, educators, and administrators provided information on opportunities at various different rural targeted venues¹².

The Healthcare Travelling Roadshow (HCTRS) was conceived in 2009 at a rural healthcare workforce symposium held in Prince George, British Columbia (BC), in response to workforce shortages. Rural communities were to provide students with a rich learning context for understanding interprofessional collaboration and rural

healthcare opportunities and challenges. The interprofessional healthcare student team was to engage local youth and provide education and encouragement towards healthcare training and careers. Each roadshow was to be customized to the communities and schools to be visited, striving to meet the needs of the region, and involve Indigenous students and healthcare providers wherever possible.

This article reports the outcomes of the program from 2010–2017. To the authors' knowledge, this is the first description of an initiative for rural university-high school healthcare career outreach that involves near-peer teaching, highly interactive sessions, and an interprofessional focus.

Methods

Study design and setting

Since 2010, the HCTRS has occurred once or more annually in northern rural and remote BC communities (population ~500–20 000), with presentations at local high schools on different healthcare careers. A typical roadshow consisted of 7 days of travel, visiting three communities and conducting 10 high school presentations (Fig1). Presentations were delivered to all youth within a cohort (typically grade 10, depending on community size and needs). The goals were to:

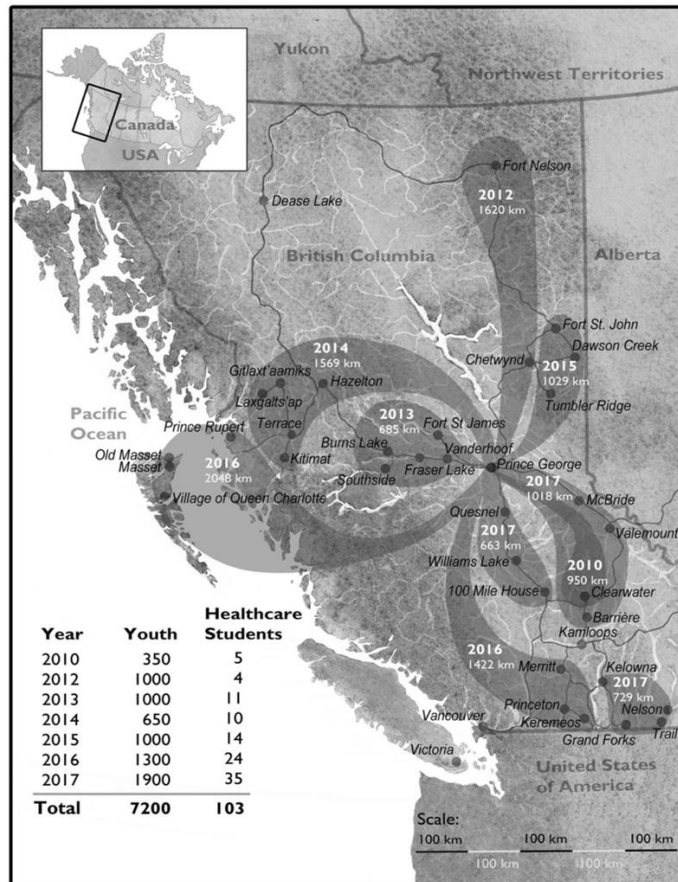
- showcase healthcare careers as options for rural students
- showcase the rural community as a career option for healthcare students
- provide an interdisciplinary experience for healthcare students.

This was to be accomplished through highly interactive presentations, and involve near-peer teaching^{28,29}, using medical equipment similar to that used in everyday healthcare situations (Table 1). A collaborative model was conceived, requiring an academic champion to engage with the academic partners, and work closely with a community champion who engaged with the various community partners to identify the specific needs of the community and how best the HCTRS may be tailored to address those needs during the timeframe of the proposed roadshow and on an ongoing basis (Fig2).

The evaluation used data from both the 2010 pilot and ongoing program evaluation. Qualitative data were analysed using a thematic analysis approach, as described below³⁰.

Table 1: Sample equipment inventory

Equipment type	Description
Anatomical model	Full skeleton, knee (articulated with ligaments), lumbar/sacral and/or cervical spine (with nerves), lung, heart, bony hand and wrist, bony foot and ankle, thorax and abdomen, full arm, skull, brain, half head and neck, large inner ear, large eyeball.
Procedural	Intubation dummy, laryngoscope, endotracheal tube and stylet, bag valve mask, ophthalmoscope, trainer stethoscopes and blood pressure cuffs, wound management supplies.
Microbiology	Plates, swabs, inoculation loops, urine vials, syringes, various blood collection tubes, paraffin tissue blocks, various demonstration slides (blood smear, parasites, etc.), chem strips, atlas, laminated example images, microscopes.
Radiology	Light box, demonstration X-rays (pre- and post-surgery, firearms accidents, traffic accidents), computerized X-ray simulator.
Physiotherapy	Wheelchair, crutches, cane, quad cane, immobilization walking boot, ankle foot orthosis thermomould plastic, knee brace, shoulder pulley, green therapy band, transfer belt, wobble cushion, wobble board, goniometer, bosu ball, anatomical foot model, spine model with deformity.
Occupational therapy	Dynamic splint/brace, dorsal extension hand brace, dynamic finger flexor splint, leather wrist working splint, thumb splint (thermo = Velcro), modified plate and utensils, reacher, sock aid.
Dental	Jaw and tooth development models, dentofoms, mid-sagittal head and neck model, skull model, dental drill, explorer, carving tools (hollenback, discoid/cleoid).
Midwifery	Birthing models, pregnant abdomen model, breast models (regular, lactating).



Created by Laura Widmer.

Figure 1: Summary of healthcare travelling roadshows 2010–2017. Dark bubbles indicate the year of the trip, the total distance travelled, and the communities visited. The years 2010 and 2012–2015 each had one annual trip, 2016 had two, and 2017 saw three annual trips, including the first trip based outside of Prince George.

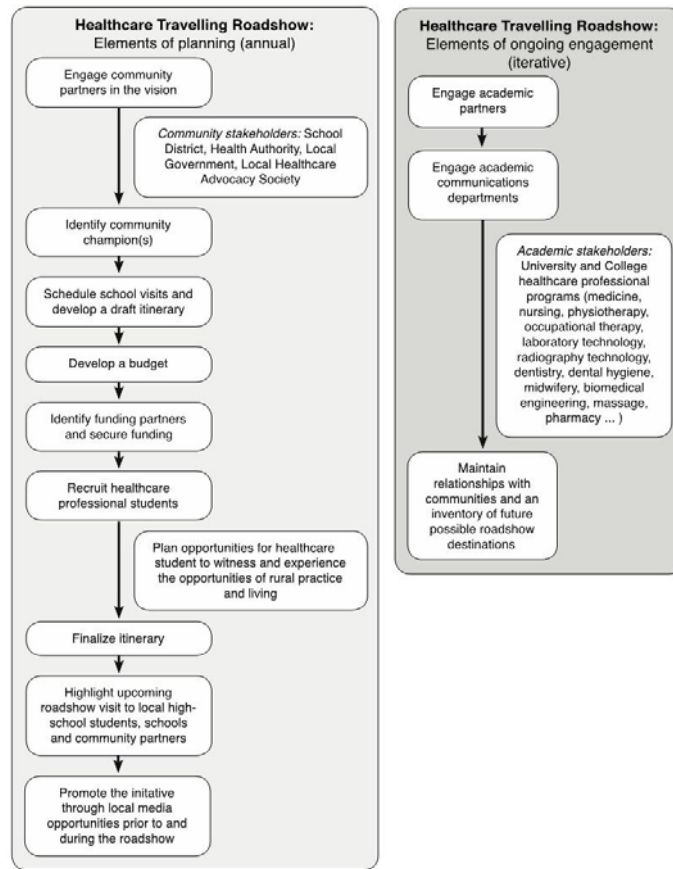


Figure 2: Elements of planning and ongoing engagement.

Sampling

Convenience sampling was utilized both during and immediately after each annual HCTRS trip. Three separate populations were targeted to ensure that the data obtained represented all parties involved. Students registered in healthcare career training programs in the province of BC, at any stage of training, were invited to apply to participate in the HCTRS. Participants were selected based on a combination of criteria including desire to inspire youth to consider healthcare careers, knowledge of or desire to learn about rural health care, and diversity of applicants (careers, training locations, gender, backgrounds). A preference was given to involving new healthcare students on each trip but a few students participated in more than one trip. Students were given minimal guidance on developing their presentations, and commonly the student presentations evolved throughout the trip.

In 2010–2017, students were from 20 different healthcare training programs, located in small and large centers across the province (Table 2), with different combinations of careers represented on each trip. Typically, eight different healthcare careers were represented on each trip, and healthcare students were generally in their mid-20s, consistent with a near-peer teaching approach^{28,29}. Key community members (teachers, administrators, hospital staff, town councillors, etc.) were identified based on previous interaction, and then invited, either by email or in person, to submit feedback on their experiences. Healthcare students were invited to provide feedback at the end of their week partaking in the HCTRS. Youth were also asked for feedback, facilitated by their school (2010 only). Participants in the study were youth (high school students; $n=22$), community members ($n=62$) and healthcare students ($n=57$).

Table 2: Careers represented in the healthcare travelling roadshow (2010–2017)

Audiology	Midwifery
Biomedical engineering technology	Nuclear medicine technology
Dental assisting	Nursing
Dental hygiene	Occupational therapy
Dentistry	Optomety
Family nurse practitioner	Pharmacy
Licensed practical nurse	Physical therapy
Medical laboratory technology science	Registered massage therapy
Medical radiography technology	Respiratory therapy
Medicine	Speech language pathology

Data collection

The questionnaires developed in the pilot study were designed for

three separate populations (youth, community members, and healthcare students) and formed the basis for those used in ongoing program evaluation. The data presented are a composite of both pilot and ongoing program evaluation. Questionnaires contained both quantitative and qualitative elements. Respondents were asked to answer three quantitative questions each on a five-point Likert scale, with healthcare students answering an additional question. Two open-ended narrative questions asked respondents to articulate strengths of the HCTRS and areas for improvement. Data were collected using either paper or electronic forms. These data were transcribed into separate documents based on respondent type and question being asked. These documents were then transferred into NVivo v11 (QSR International; <https://www.qsrinternational.com/nvivo/home>) to facilitate the generation of codes and themes. Data collection occurred between 2010 and 2017, on 10 different trips, resulting in a total of 141 respondents between all three populations. Non-participation was not a concern and specific number of refusals to participate was not tracked.

Analysis

Quantitative data are shown with Likert scale averages and confidence intervals calculated using Microsoft Excel. Qualitative data were coded iteratively by three investigators (SBM, KM and JQG) in NVivo. These codes were then analyzed by a single author (KT) to ensure congruity and comprehensiveness. An inductive approach to coding was used, basing codes on the data and not on any existing framework³⁰. Codes were generated simultaneously for all respondent types and were not separated based on this parameter. Themes were generated through a

semantic approach to summarize the data without much interpretation³⁰. Themes that emerged are based on collective data from all respondents across all years.

Ethics approval

A pilot study was conducted with youth in 2010, with both student assent and parental consent for youth to complete the questionnaire and be filmed for promotional film development. Ethics approval was granted by the University of British Columbia Research Ethics Board (protocol H10-01345) and the University of Northern British Columbia Research Ethics Board (protocol E2010.0520.089). Program evaluations were conducted with healthcare students and community members from 2010 to 2017, for the primary purpose of program improvement.

Results

Quantitative analysis

Youth, healthcare students, and community members consistently indicated that the HCTRS was successful or very successful (Table 3). When asked whether they thought this initiative would help encourage healthcare students to consider one day taking up practice in a rural community, youth and healthcare students thought this was likely or very likely, whereas the community members felt this was only somewhat likely to likely. Regarding whether the HCTRS achieved the aim of inspiring local youth to consider careers in health care, all groups felt the HCTRS did this very much. Healthcare students consistently rated the overall experience very highly.

Table 3: Quantitative evaluation of the healthcare travelling roadshow. Average of responses to program evaluation questions, with 95% confidence intervals presented by population: youth (n=22), community members (n=62), healthcare students (n=57), and total (n=141 or n=57 total for question 4)

Question	Youth (n (95%CI))	Community members (n (95%CI))	Healthcare students (n (95%CI))	Total (n (95%CI))
How successful do you think this project was in general? (1 = Not very, 5 = Very)	4.68 (4.44–4.92)	4.68 (4.55–4.81)	4.75 (4.64–4.86)	4.71 (4.63–4.79)
Do you think this project will encourage healthcare students to consider settling in a rural community after graduation? (1 = Not likely, 5 = Very likely)	4.14 (3.84–4.44)	3.66 (3.46–3.86)	4.58 (4.43–4.73)	4.12 (3.98–4.26)
Do you think this project has encouraged local youth to consider careers in healthcare? (1 = Not much, 5 = Very much)	4.55 (4.30–4.80)	4.31 (4.15–4.47)	4.54 (4.39–4.69)	4.45 (4.35–4.55)
Please rate your overall experience of the project (healthcare students only). (1 = Poor, 5 = Excellent)			4.82 (4.71–4.93)	4.82 (4.71–4.93)

CI, confidence interval.

Qualitative analysis

Four major themes arose from the analysis: (1) sincerity and interactivity sparking enthusiasm, (2) learning through rural exposure and community engagement, (3) healthcare student

personal growth, and (4) interprofessional collaboration and development. The first two themes arose across all three populations, while the last two arose only with the healthcare students. Quotes representing the variety of perspectives encompassed within each theme are shown in Table 4.

Table 4: Highlights of program evaluation. Representative quotes organized by theme

Sincerity and interactivity sparking enthusiasm
'Everything was pretty great. I liked that everything was hands on, and that we got to learn a bit about everyone.' – Youth
'I think the range of backgrounds/life experiences/career choices each student had was great for kids to see.' – Community member
'Inspiring and educating the high school students ... Seeing their "aha" moments and enthusiasm.' – Healthcare student
'All the hands-on work that we were able to see. I liked how all the medical students personalized their work.' – Youth
'The interactive tables were great for kids to actually see what might be involved, as many of these kids have probably never been exposed to most of the professions incorporated in the roadshow.' – Community member
'I liked the connection obtained by talking to the people who had come for my sake.' – Youth
Learning through rural exposure and community engagement
'Having healthcare students from all over BC ... allows us to showcase our community and what we have to offer professionals coming to the [region].' – Community member
'It is inevitable that students will all encounter patients at some point in their career who have come from a smaller community and have faced some of the health care challenges that comes along with that. Having at least some idea of what those challenges are will allow students to be better equipped to care for these patients.' – Healthcare student
'I can genuinely say that because of this opportunity, I would consider working in a more rural area as a healthcare professional.' – Healthcare student
'The Roadshow gave me incredibly valuable insight into what this sort of medical path would be like and I feel like firsthand exposure is really the only way to obtain this sort of insight.' – Healthcare student
Healthcare student personal growth
'It's great to learn what brought people to their career of choice and it's inspiring to know there are lots of options to be shared with not only youth but anyone looking for a rewarding career.' – Healthcare student
'Learned about how to effectively describe my own profession to others, learned about the role/scope of other fields.' – Healthcare student
'Talking to the students from other training programs helps me to communicate with other health professionals better in my future work.' – Healthcare student
'That personal sense of bringing this important cause to a region that requires this work so acutely and desperately was satisfying.' – Healthcare student
Interprofessional collaboration and development
'... I realized while travelling to these small towns that teamwork is key. It can be daunting and overwhelming to manage the health of an entire community, which is why support networks and interprofessional cooperation among different health professionals is vital for long-term sustainability.' – Healthcare student
'I learned a little more about what is involved in the different professions as well, which makes it easier for me to understand how I can incorporate partnerships later on when I am in practice.' – Healthcare student
'I was impressed with the depth of knowledge across all different disciplines and how much we can learn from each other and how our work with patients connects.' – Healthcare student
'[I] learned that everyone brought a lot to the table and was able to gain more insight into how other people's programs worked and it broadened my own understanding of a healthcare team' – Healthcare student
'... the most enjoyable part of the roadshow has been learning from the other students that have been alongside me on the tour. I have found it incredibly informative to learn about the professions that influence healthcare in the clinical setting.' – Healthcare student

Sincerity and interactivity sparking enthusiasm

This theme was the most prominent across all populations. Nearly all youth valued interactivity when asked their view of the best part of the HCTRS. Healthcare students often commented that they most enjoyed the enthusiasm they were able to elicit from students during the small group presentations. The most common key ideas within this theme included inspiring youth, mentoring through sharing stories, sincerity of the healthcare students, and enjoyment of the interactive stations. The community members also found the presentation of the diversity of healthcare career options to be powerful.

Learning through rural exposure and community engagement

Healthcare students as well as community members viewed rural exposure and community engagement as paramount in the impact of the HCTRS. Healthcare students from both smaller and larger centers often remarked on how the HCTRS opened their eyes to rural life and its benefits as well as its challenges. Some students were profoundly impacted by the resource scarcities in rural towns and how this was managed by the local healthcare teams. Community members often wrote about their positive interactions with the healthcare students during the HCTRS and specifically during tours of community healthcare facilities, when community

leaders showcased their communities. Community members were optimistic that, by following such robust engagement with the community, students would be more likely to consider rural practice as a viable career option in the future.

Healthcare student personal growth

A less common but still prominent theme that arose was the personal growth of the healthcare students. This stands out as a major ancillary benefit of the HCTRS beyond achieving its three goals. Students articulated being inspired to be better people, gaining confidence in describing their career to others, and increasing their cultural competency. Personal growth came from the interprofessional interactions, high school presentations, and community exposure.

Interprofessional collaboration and development

The theme of interprofessionalism was unique to the healthcare students. Interprofessionalism was one of the most commonly occurring themes throughout the data, suggesting that the healthcare students regarded this as one of the most impactful aspects of the HCTRS. Students talked mostly about their interactions with the other healthcare students, and how the experience of learning with, from and about each other helped

them to develop a better, more holistic understanding of interprofessionalism in health care.

The majority of constructive comments from all three populations were operational recommendations. However, these were largely contradictory. Some wanted larger presentations to include more students; others wanted smaller presentations for more engagement. Some wanted more time for interaction; others wanted more presentations to happen. These paradoxical ideas were represented across populations and illustrate the importance of taking a balanced approach to planning the HCTRS, ensuring the goals of the HCTRS are best met, while meeting the needs of the host communities as much as possible. Finding this balance requires thoughtful planning and communication on the part of the academic and community champions.

Discussion

The present data show that the HCTRS was uniformly well received and largely successful in achieving its goals. Participants mostly rated the success of different aspects of the initiative at greater than 4 out of 5. One notable exception was that community members felt it was only somewhat likely to likely that the HCTRS would encourage healthcare students to consider rural practice. The community members may have had a more realistic perspective, given their lived experience with the realities of rural healthcare recruitment and retention. It is also possible that they may not have understood the full scope of the HCTRS, as few community members were engaged in all aspects (school presentations, community tours, hospital tours, and social events). Additionally, community members may have had a more sceptical perspective than the healthcare students, who were typically two to three decades younger. Community involvement and 'fit' is important in rural recruitment for practitioners of both rural and urban background³¹. Younger healthcare practitioners have different career aspirations than their senior colleagues and working with these different aspirations contributes to success in recruitment and retention⁶. If community members believe it is unlikely that their youth will go into health care or that the HCTRS students are unlikely to choose rural practice, their attitudes could decrease the success of the initiative. As the HCTRS grows and engages community members in discussion about rural healthcare recruitment, a desirable outcome would be building community optimism about rural healthcare recruitment.

In the qualitative analysis, all three populations articulated that the HCTRS was successful in achieving the three goals set out by the program. Furthermore, all community respondents, when asked whether they hoped the roadshow would return to their community, responded in the affirmative, often emphatically. This illustrates how well the HCTRS was received by communities, and their belief that it may help to address rural healthcare shortages. In addition, through open-ended feedback, novel benefits outside of the three main goals were identified. These include personal growth for healthcare students and positive engagement with the community leaving a lasting impact on their understanding of rural health care. The interprofessional design was a high impact aspect

of the HCTRS for the healthcare students. Interprofessional initiatives have many benefits for rural health care at the post-licensure level, including patient care cost savings, and recruitment and retention of healthcare professionals³². Whether interprofessional rural exposure at the trainee level is associated with long term rural recruitment and retention is not currently known³², but is an important area for future HCTRS research.

Constructive feedback illustrates the complexity of trying to meet the diverse needs of the stakeholders. Many details need to be negotiated in the planning of each trip, including number of presentations, presentation size and duration, target grade, nature or extent of community and healthcare facility tours. Meaningful community engagement is key in the planning and execution of the roadshow, as in other areas of rural health sciences education³³. Community members shared how speaking to the healthcare students about their community, its strengths and needs, allowed them to showcase their community and shed light on the healthcare disparities specific to their community. Based on the community and academic champions' suggestions to ensure success, the program needs to continue to tailor its implementation, and be flexible to best address the needs of the various stakeholders involved in each trip.

One of the most common ideas to emerge from the data was that of personal interaction, and the power therein. This was brought up in many different instances, which show how opening a narrative on rural health care between secondary school students, healthcare students, and communities can act to bring about a change in mindset that could see rural healthcare shortages lessen in the future. Secondary school students remarked on how hearing the stories of healthcare students gave them a better understanding of each career and brought realism to the intangible idea of pursuing healthcare in their future careers. Community members shared how speaking to the healthcare students about their community, its strengths and needs, allowed them to showcase their community and shed light on their specific healthcare disparities. Healthcare students spoke often about how amazing it was to share their stories with secondary school students as well as with each other; thereby giving them a framework for how to view themselves and their role within the healthcare team. The HCTRS has worked to open the narrative of healthcare disparities in rural communities, which may help to address this gap in the future.

Limitations

This article describes the evaluation of an innovation to address rural healthcare workforce shortages. The analysis summarizes participants' impressions at the time of the HCTRS, but cannot infer success in improving rural healthcare workforce recruiting. Further study of the impact of the HCTRS over the long term is warranted.

Conclusions

The barriers to recruiting healthcare professionals to rural regions are multifaceted, thus effective strategies to address this issue

must also be multifaceted^{2,12}. Since 2010 the HCTRS has been visiting rural communities throughout BC, with the aim of exposing rural youth to healthcare career options and healthcare students to rural health care and communities. Feedback from key community members, healthcare students and secondary school students has been overwhelmingly positive, indicating that the HCTRS has been successful in achieving its goals. Suggestions for improvement demonstrate the need for taking a balanced approach and tailoring the program to each community. Open-ended feedback identified successes outside of the primary goals and illustrate how this program could act in a multi-faceted way to promote

healthcare recruitment and retention. Through continual program improvement and widening recognition, the HCTRS will continue to grow into the future, while working to improve rural healthcare workforce recruitment and retention in rural BC.

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REFERENCES:

- 1 Blumenthal DS. Geographic imbalances of physician supply: an international comparison. *Journal of Rural Health* 1994; **10(2)**: 109-118. <https://doi.org/10.1111/j.1748-0361.1994.tb00217.x> PMID:10134711
- 2 Geyman JP, Hart LG, Norris TE, Coombs JB, Lishner DM. Educating generalist physicians for rural practice: how are we doing? *Journal of Rural Health* 2000; **16(1)**: 56-80. <https://doi.org/10.1111/j.1748-0361.2000.tb00436.x> PMID:10916315
- 3 Snadden D, Casiro O. Maldistribution of physicians in BC: what we are trying to do about it. *British Columbia Medical Journal* 2008; **50(7)**: 371-372.
- 4 Laven G, Wilkinson D. Rural doctors and rural backgrounds: how strong is the evidence? A systematic review. *Australian Journal of Rural Health* 2003; **11(6)**: 277-284. <https://doi.org/10.1111/j.1440-1584.2003.00534.x> PMID:14678410
- 5 Moazzami B. *Strengthening rural Canada: fewer & older: population and demographic challenges across rural Canada. A Pan-Canadian report*. 2015. Available: <http://strengtheningruralcanada.ca/file/Fewer-Older-Population-and-Demographic-Challenges-Across-Rural-Canada.pdf> (Accessed 24 August 2019).
- 6 Snadden D, Kunzli MA. Working hard but working differently: a qualitative study of the impact of generational change on rural health care. *CMAJ Open* 2017; **5(3)**: E710-E716. <https://doi.org/10.9778/cmajo.20170075> PMID:28903976
- 7 Hensel J, Shandling M, Redelmeier D. Rural medical students at urban medical schools: too few and far between? *Open Medicine* 2007; **1(1)**: e13-e17.
- 8 Hughes S, Zweifler J, Schafer S, Smith MA, Athwal S, Blossom HJ. High school census tract information predicts practice in rural and minority communities. *Journal of Rural Health* 2005; **21(3)**: 228-232. <https://doi.org/10.1111/j.1748-0361.2005.tb00087.x> PMID:16092296
- 9 Rourke J. Strategies to increase the enrolment of students of rural origin in medical school: recommendations from the Society of Rural Physicians of Canada. *Canadian Medical Association Journal* 2005; **172(1)**: 62-65. <https://doi.org/10.1503/cmaj.1040879> PMID:15632407
- 10 Woloschuk W, Tarrant M. Does a rural educational experience influence students' likelihood of rural practice? Impact of student background and gender. *Medical Education* 2002; **36(3)**: 241-247. <https://doi.org/10.1046/j.1365-2923.2002.01143.x> PMID:11879514
- 11 Hancock C, Steinbach A, Nesbitt TS, Adler SR, Auerswald CL. Why doctors choose small towns: a developmental model of rural physician recruitment and retention. *Social Science & Medicine* 2009; **69(9)**: 1368-1376. <https://doi.org/10.1016/j.socscimed.2009.08.002> PMID:19747755
- 12 Lauver LS, Swan BA, West MM, Zukowsky K, Powell M, Frisby T, et al. Kids into health careers: a rural initiative. *The Journal of Rural Health* 2011; **27(1)**: 114-121. <https://doi.org/10.1111/j.1748-0361.2010.00316.x> PMID:21204978
- 13 Brooks RG, Walsh M, Mardon RE, Lewis M, Clawson A. The roles of nature and nurture in the recruitment and retention of primary care physicians in rural areas: a review of the literature. *Academic Medicine* 2002; **77(8)**: 790-798. <https://doi.org/10.1097/00001888-200208000-00008> PMID:12176692
- 14 Grobler L, Marais BJ, Mabunda S. Interventions for increasing the proportion of health professionals practising in rural and other underserved areas. *Cochrane Database of Systematic Reviews* 2015; CD005314. <https://doi.org/10.1002/14651858.CD005314.pub3> PMID:26123126
- 15 Wilson NW, Couper ID, De Vries E, Reid S, Fish T, Marais BJ. A critical review of interventions to redress the inequitable distribution of healthcare professionals to rural and remote areas. *Rural and Remote Health* 2009; **9**: 1060. Available: <http://www.rrh.org.au/journal/article/1060> (Accessed 1 June 2018).
- 16 Eley D, Young L, Przybeck TR. Exploring the temperament and character traits of rural and urban doctors. *Journal of Rural Health* 2009; **25(1)**: 43-49. <https://doi.org/10.1111/j.1748-0361.2009.00197.x> PMID:19166560
- 17 Tesson G, Curran V, Pong RW, Strasser R. Advances in rural medical education in three countries: Canada, the United States and Australia. *Education for Health* 2005; **18(3)**: 405-415. <https://doi.org/10.1080/13576280500289728> PMID:16236588
- 18 Snadden D, Bates J. Expanding undergraduate medical education in British Columbia: a distributed campus model. *Canadian Medical Association Journal* 2005; **173(6)**: 589-590.

<https://doi.org/10.1503/cmaj.050439> PMID:16157718

- 19** de Villiers M, van Schalkwyk S, Blitz J, Couper I, Moodley K, Talib Z, et al. Decentralised training for medical students: a scoping review. *BMC Medical Education* 2017; **17(1)**: 196. <https://doi.org/10.1186/s12909-017-1050-9> PMID:29121923
- 20** Mlambo M, Dreyer A, Dube R, Mapukata N, Couper I, Cooke R. Transformation of medical education through Decentralised Training Platforms: a scoping review. *Rural and Remote Health* 2018; **18**: 4337. Available: <http://www.rrh.org.au/journal/article/4337> (Accessed 7 July 2018). <https://doi.org/10.22605/RRH4337> PMID:29522688
- 21** Aird PE, Shadbolt NS, Blau EM. Recruiting rural students to medicine: when best to intervene to improve the odds? *McMaster University Medical Journal* 2007; **4(1)**: 17-19.
- 22** Whalen D, Harris C, Harty C, Greene A, Faour E, Thomson K, et al. Should I apply to medical school? High school students and barriers to application. *Canadian Journal of Rural Medicine* 2016; **21(2)**: 46-50.
- 23** Carson DB, Schoo A, Berggren P. The 'rural pipeline' and retention of rural health professionals in Europe's northern peripheries. *Health Policy* 2015; **119**: 1550-1556. <https://doi.org/10.1016/j.healthpol.2015.08.001> PMID:26321193
- 24** Murray RB, Wronski I. When the tide goes out: health workforce in rural, remote and Indigenous communities. *Medical Journal of Australia* 2006; **185(1)**: 37-38.
- 25** Shaikh FM, Babar M, Cross KS. Mini-Med School: promoting awareness of medicine as a career for suburban and rural high-school students. *ANZ Journal of Surgery* 2013; **83(6)**: 481-486. <https://doi.org/10.1111/j.1445-2197.2012.06288.x> PMID:23107576
- 26** Henderson RI, Williams K, Crowshoe LL. Mini-Med School for Aboriginal youth: experiential science outreach to tackle systemic barriers. *Medical Education Online* 2015; **20(1)**. <https://doi.org/10.3402/meo.v20.29561> PMID:26701840
- 27** Robinson MA, Douglas-Vail MB, Bryce JN, van Zyl TJ. Medical school outreach and mentorship for rural secondary school students: a pilot of the Southwestern Ontario Medical Mentorship Program. *Canadian Journal of Rural Medicine* 2017; **22(2)**: 62-67.
- 28** Benè KL, Bergus G. When learners become teachers: a review of peer teaching in medical student education. *Family Medicine* 2014; **46(10)**: 783-787.
- 29** Sonagara VJ, Santhirakumaran S, Kalkat HS. The value of near-peer teaching in the medical curriculum. *Advances in Medical Education and Practice* 2018; **9**: 63-64. <https://doi.org/10.2147/AMEP.S153240> PMID:29403327
- 30** Braun V, Clarke V. Using thematic analysis in psychology. *Qualitative Research in Psychology* 2006; **3(2)**: 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- 31** Hancock C, Steinbach A, Nesbitt TS, Adler SR, Auerswald CL. Why doctors choose small towns: a developmental model of rural physician recruitment and retention. *Social Science & Medicine* 2009; **69(9)**: 1368-1376. <https://doi.org/10.1016/j.socscimed.2009.08.002> PMID:19747755
- 32** Suter E, Deutschlander S, Mickelson G, Nurani Z, Lait J, Harrison L, et al. Can interprofessional collaboration provide health human resources solutions? A knowledge synthesis. *Journal of Interprofessional Care* 2012; **26(4)**: 261-268. <https://doi.org/10.3109/13561820.2012.663014> PMID:22390728
- 33** Strasser RP. Community engagement: a key to successful rural clinical education. *Rural and Remote Health* 2010; **10**: 1543. Available: <http://www.rrh.org.au/journal/article/1543> (Accessed 5 April 2018). <https://doi.org/10.22605/RRH1543> PMID:20815653

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