Alberta 2023: Health System Challenges and Opportunities

An Issue Brief Series

Priorities to Improve Care in Rural Alberta

The Issue

Alberta is experiencing an accelerating loss of rural physicians, nurses and other health professionals with resulting loss of services and reduction in capacity to train the next rural health workforce generation.

The Options

- 1.A commitment to rural health teams able to provide comprehensive healthcare including obstetric and surgical services.
- 2. A commitment to team-based practice models with staffing levels that promote durability and long-term retention of health professionals.
- 3.A commitment to educating the future rural healthcare workforce in rural Alberta, for rural Alberta.

The Recommendations

If we do nothing, rural healthcare access will continue to worsen, and rural education programs will shrink. We can:

- Take a small step and make small investments in the current model and expand rural education programs, stabilizing workforce and access in some areas while other areas will continue to experience chronic shortages.
- Act boldly with the goal of providing all rural Albertans with healthcare close to home, solving the problem for the long term, and becoming a world leader in rural healthcare sustainability.



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The Issue

Alberta currently has a crisis in rural access to healthcare. Access to high-quality healthcare is essential for vibrant rural communities, rural citizens, and rural businesses. Over 650,000 Albertans live and work in rural Alberta (1). However, there are not enough physicians to serve our rural population compared to our urban population (2). Currently, over 75% of physician jobs posted on Doctor Jobs Alberta are located outside of Calgary and Edmonton (3).



22% of Albertans live in rural and remote communities. That's over 650,000 people.



However, less than 7% of family physicians work in rural and remote communities.

Percent of Albertans living in rural communities compared to percent of family physicians working in rural communities

Providing Albertans with a vibrant and effective rural health workforce is a long-term challenge, one that has become more difficult over the past several years, exacerbated by contentious contract negotiations and the COVID-19 pandemic which have impacted both recruitment and retention of physicians and other healthcare workers in rural communities. The sustainability of rural communities depends on access to high quality healthcare.

The availability of comprehensive healthcare is a major factor determining whether young people will live in a rural community, and whether the aging rural population can live out their lives in their home communities (4). Healthcare is a major consideration for business and industries. Businesses wish to attract, retain, and maintain a healthy workforce and it is essential that workers and their families have access to primary care, emergency care, and obstetrical care. The rural economy is dominated by health and safety sensitive industries including oil & gas, agriculture, forestry, and resource extraction (5). As healthcare services are lost, rural communities themselves become less sustainable (6).

The medical schools in both Calgary and Edmonton have well-established rural programs at the medical school and residency (apprenticeship after medical school) levels. These programs are effective in training future rural physicians with approximately 70% of graduates joining the rural healthcare workforce (7). However, these programs are small and do not train enough physicians to meet the needs of rural Alberta. For example, rural residency programs in Alberta currently have 32 total spaces per year—far too few to meet the workforce needs of rural Alberta (8).

The provision of high-quality healthcare has been identified as a key challenge and priority by the Rural Municipalities of Alberta, and must be a high priority for all stakeholders in improving Alberta's healthcare system (9). The bottom line is that thriving Alberta communities with strong economies always have a backbone of comprehensive local healthcare.

This document presents three key areas of focus for stabilizing and sustaining a robust healthcare system in rural Alberta. Each focus area will list key enablers that policy makers can focus on, and examples of rural areas where elements of the focus are being done well and can be built upon or used as templates for other rural communities.

The Options

Focus on building healthcare teams able to deliver the range of health services required by the community

Similar to their urban counterparts, rural Albertans should be able to expect that most of their healthcare can be delivered locally. This can be achieved because often rural physicians, nurses and other health professionals take on a broader scope of practice in comparison to urban colleagues, and provide a range of primary and secondary health services. Examples of these roles include emergency care, obstetrical care, hospital inpatient care, anesthesia, surgical care, longterm care, palliative care, home visits, teaching, leadership, and administrative work. Providing care close to home makes a difference for patients. In obstetrical care especially, as further distance from care has been shown to result in worse outcomes for mothers and babies (10). Communities can only provide safe care for mothers and newborns when comprehensive care is available from clinic, to hospital, to home care.

Comprehensive care in High Level and Hinton

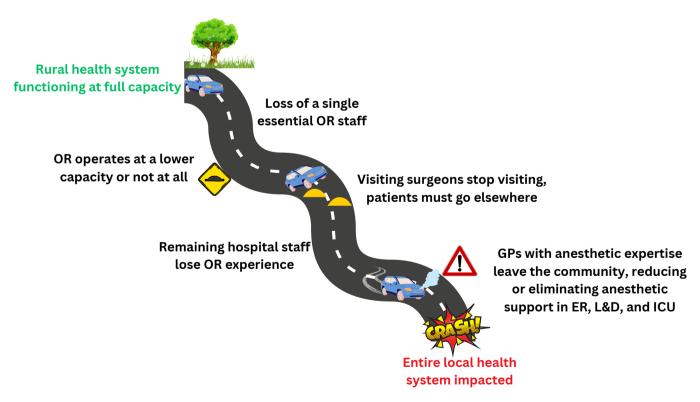
These communities have citizens who can get care in clinic and in hospital, such as CT scans, surgery, homecare, and child delivery in their community. This is because they are supported by robust healthcare teams that include nurses, physiotherapists, occupational therapists, dentists, hygienists, medical imaging technicians, pharmacists, with groups of comprehensive generalist physicians and local and visiting specialists. The range of usual healthcare needs are supported locally, and citizens at all stages of life receive most of their healthcare close to home.

To deliver such comprehensive care, rural communities require adequate staffing of physicians, nurses, and other health professionals. As the nature of rural work is substantially different from urban healthcare, these staffing models cannot simply be scaled down versions of urban staffing. Robust rural healthcare staffing must consider the need in all these areas.

The loss of a single part of the team, such as anesthetic support, or experienced obstetrical or operating room nurse can lead to a cascade of service loss in rural communities. Once these services are lost, they are difficult to restore and often lost permanently. Recognizing that these programs are linked and that the loss of one service can cascade into the loss of many services highlights the importance of ensuring that stable and uninterrupted services are maintained.

Key Enablers

- Provide obstetrical and surgical services in rural communities.
 This improves outcomes for patients and makes rural hospitals sustainable.
- Provide elder care, homecare, palliative care, mental health, and addictions services locally in rural communities. Providing the services Albertans need close to home allows citizens to remain in their communities and supports rural businesses and economies.



Note: ER = Emergency Room; GP = General Practitioner; ICU = Intensive Care Unit; L&D = Labour and Delivery; OR = Operating Room

Example of how the loss of a single skilled health professional can impact the whole rural health system

2. Focus on practice models that promote workforce durability and sustainability

Modern team-based healthcare requires physicians, nurses, pharmacists, and other health professionals to work together to deliver optimal healthcare for patients. The breadth of work in the rural setting means that teams of health professionals are critical in this setting for both workforce durability and sustainability. Similarly, removing the burden of running a business from physicians who own clinics is helpful as new graduates and recruits want to be physicians managing a healthcare team, not clinic owners managing a business.

Recruitment of health professionals to rural communities is difficult and costly. These professionals are in demand across Canada and are highly portable. Recruitment and retention efforts need to be proactive, focused on recruiting healthcare workers who will provide the services the community currently needs and will need in the future (11).

A 2021 systematic review of rural health workforce retention in 2021 showed that "policy makers can be confident that selecting health professional students based on rural background, encouraging distributed training based in rural and remote areas during their basic and subsequent training, and removing barriers to rural health professionals for further developing their skills (both professional and personal) and qualifications is associated with longer rural retention." (12)

Healthcare professionals in many rural practice environments are consistently overworked – the right number of health care providers is more than the minimum number needed to just keep services open. Otherwise there is a high risk of burnout and high rates of turnover on the team. Healthcare workers who have space and time to live in the community, make the community home.

A stable workforce in Westlock and Peace River

Westlock and Peace River have robust physician workforces anchored by long-term generalist physicians, strong teaching programs, and new physicians from both Canadian and International medical schools committing to the community. Having an adequate number of physicians, not just the bare minimum needed to provide service means that physicians have the time to integrate into community life. This results in long term retention and improved recruitment as new physicians see the opportunity for both interesting work and life in the community.

Durable practice models include some redundancy so that regular staff turnover does not precipitate local crisis and predictable workforce fluctuations due to parental leave, illness leave, and vacations can be covered locally. An adequate workforce supports the continuous provision of healthcare to rural communities while providing rural healthcare providers with space to integrate into the community, mitigating burnout and supporting long term retention. Thriving healthcare providers become invested in their town beyond work and are often dynamic additions to the fabric of a community, and find time in their professional lives for other key administrative and teaching roles.

New graduates are looking for practice opportunities in communities where they will be supported by colleagues, be able to provide broad scope care, and be involved in teaching. This means that the most difficult time to recruit is when a community is already understaffed and has lost services. Recruitment and retention of the healthcare workforce must be continuously supported, not just attended to in times of crisis.

Key Enablers

- Funding models that support a sufficient supply of health professionals who take on the broad scope practice required in rural settings. A sufficient supply of physicians, nurses and other health professionals means that normal turnover does not precipitate crisis.
- Commitment to team-based care with physicians, nurses and other health professionals working together at full scope. This means patients can access a range of care and improves recruitment of new graduates who train and want to work in teams.

3. Educate the rural health workforce of the future, with rural teachers in rural communities

Alberta has a long history of rural physician training with successful but small programs at both medical schools. In medical training, immersive rural placements and dedicated rural training streams are the best predictors of future rural practice. Education is the best form of long-term recruitment with 14 times more rural residency graduates eventually working in rural practice than urban-based graduates (7). The expansion of rural residency programs at both medical schools as well as focusing on premedical education of rural youth aspiring to healthcare careers is key to consistently training an adequate rural workforce.



70% of rural residency graduates work in rural practice

5% of urban-based graduates work in rural practice

Percent of graduates working in rural practice by type of education program

Physicians are only one part of the rural healthcare team. The longitudinal rural training model is well developed in medical education and must be expanded to include rural training for nurses, nurse practitioners, and other health professions. The University of Calgary has recently announced a rural training stream for nursing in Wainwright, Alberta (13), a positive step that must be expanded. Ideally rural trainees from all health professions would train alongside one another to prepare for the multi-disciplinary rural healthcare teams they will join.

A current barrier to increasing rural training in Alberta is a critical lack of rural physicians who teach students inside of their medical practices (i.e., preceptors). Providing training to physicians to become teachers as well as providing funding that offsets the costs of teaching is critical to support the growth of rural training programs. To train rural healthcare workers we need to invest in rural training, pay people in rural areas to train healthcare workers, and actively address the barriers to increasing educational capacity.

Longitudinal Integrated Clerkships take medical education rural

The Longitudinal Integrated Clerkships (LIC) at the University of Calgary and the University of Alberta allow students to live and learn in rural communities across the province. In LIC communities, students participate in comprehensive patient care (e.g., obstetrics, emergency care, surgical work, and clinic care), becoming part of the medical team, the community and settling into rural life. Many of the students who train in rural Alberta for extended periods, later practice in rural Alberta, creating a pipeline for the next generation of rural physicians.

Challenges in access to rural healthcare and the lack of rural preceptors are two sides of the same coin. The rural physicians who care for rural patients are the same people who teach the next generation of rural physicians. When communities become understaffed, increased clinical demands limit the ability of local physicians to engage in teaching, and when communities lose services like obstetrics, long term training placements may no longer be possible as students can no longer access required experiences. When communities lose education capacity, they also lose their most ready supply of recruits, further exacerbating workforce shortages.

Rural education leadership is a critical bottleneck. Currently neither medical school has any full-time rural faculty members. This leaves rural medical education dependent on the goodwill of rural clinical faculty who often provide this leadership in unpaid, informal ways in addition to their busy clinical jobs. Ultimately, rural healthcare providers should not only teach, but be significantly involved in the development of rural health professions education, as funded faculty members with positions of influence and responsibility.

An additional barrier is the insufficient physical space for rural education. Students need clinic rooms, call rooms, desk space, and meeting space. Access to simple clinic space is an increasing limitation for rural teaching. Student doctors need rooms to see patients in. As clinics expand to increase care spaces for new physicians, there is no funding for building teaching spaces. Even our newest hospitals (e.g., Grande Prairie) have limited space for the educational administrators who support our rural doctors-in-training.

Supporting physician and health professions training in rural Alberta is a key investment closely tied to recruitment, retention and workforce stabilization. Training also has positive economic impact for host communities and is a key focus for stabilizing rural healthcare in Alberta (14,15,16).

Key Enablers

- Address barriers to increasing rural teaching capacity including the lack of rural teaching faculty, rural educational leadership and teaching space in rural clinics and hospitals. This will allow development of capacity in already successful programs.
- Focus on longer term rural placements and pipelines for rural training. Specific pipelines towards
 rural health careers and longer rural placements are effective in increasing the proportion of
 graduates who choose rural careers.
- Expand rural training opportunities for non-physician health professionals. Rural communities need healthcare teams. Training opportunities for all members of the healthcare team are important to stabilize the rural health workforce.

The Recommendations

Rural Alberta has a healthcare access crisis with inconsistent staffing and resources across the province. Healthcare is an absolute requirement for vibrant rural communities, rural citizens, and rural businesses. A focus on developing broad scope practice models, sustainable workforce planning and long-term stabilization through rurally based education of the rural Alberta workforce is key in resolving the current crisis and creating a rural health system that is robust over the long term. The government recently announced one million dollars of funding to study new models of rural education. This focus on rural education is welcome and will hopefully be followed by bold action to address patient access through rural health teams and long-term stabilization of the rural workforce. The time to address the rural healthcare crisis in now – we can either stay the same, take a small step, or be bold.

Be Bold! Provide all rural Albertans with healthcare close to home. This can solve the problem for the long term, and we can become a world leader in rural health workforce.

Take a small step! Invest in the current model and expand rural education programs. This will stabilize workforce and access in some areas, while other areas will continue to experience chronic shortages.

Stay the same! Rural healthcare access will continue to worsen and rural education programs will shrink.

Recommendations to improve healthcare in rural Alberta

References

- 1. Statistics Canada. 2022. Population Growth in Canada's Rural Areas, 2016 to 2021. https://www12.statcan.gc.ca/census-recensement/2021/as-sa/98-200-x/2021002/98-200-x2021002-eng.cfm (accessed January 21, 2023)
- 2. Canadian Institute for Health Information. (2022). Proportion of Physicians in Rural Areas [indicator]. https://www.cihi.ca/en/indicators/proportion-of-physicians-in-rural-areas. (accessed January 21, 2023)
- 3. Alberta Health Services. Doctor Jobs Alberta. (2023). https://doctorjobsalberta.albertahealthservices.ca/ (accessed Feb. 11, 2023)
- 4.McQuillan, K., Laszlo, M. (2022). Population Growth and Population Aging in Alberta Municipalities. Future of Municipal Government Series, University of Calgary. 15(17). http://dx.doi.org/10.11575/sppp.v15i1.74699
- 5. Nichols Applied Management Inc. (2018). The Economic Contribution of Rural Alberta.
- 6. Miewald C, Klein M, Ulrich C, Butcher D, Rosinski J, Procyk A. (2011). "You don't know what you've got till it's gone" *: the role of maternity care in community sustainability. Can J Rural Med, 16(1)
- 7. University of Calgary, Distributed Learning & Rural Initiatives. (2022). Key performance Indicators Physician Education and Development Grant (PED) GAMS 012864, 2021-2022
- 8. CARMS. (2023). R-1 Main Residency Match. https://www.carms.ca/match/r-1-main-residency-match/program-description (accessed on Feb. 11, 2023)
- 9. Rural Municipalities of Alberta, Position Statement: Health Jan. 28, 2022, https://rmalberta.com/wp-content/uploads/2022/01/Health-Position-Statements.pdf
- 10. Luke S, Hobbs A, Mak S, Der K, Pederson A, Schummers L. (2022). Travel Time to Delivery, Antenatal Care, and Birth Outcomes: A Population-Based Cohort of Uncomplicated Pregnancies in British Columbia, 2012–2019. Journal of Obstetrics and Gynaecology Canada. 44(8):886-894. doi:https://doi.org/10.1016/j.jogc.2022.04.009
- 11. Abelsen, B., Strasser, R., Heaney, D. et al. (2020). Plan, recruit, retain: a framework for local healthcare organizations to achieve a stable remote rural workforce. Hum Resour Health, 18(63). https://doi.org/10.1186/s12960-020-00502-x
- 12. Russell, D., Mathew, S., Fitts, M. et al. (2021). Interventions for health workforce retention in rural and remote areas: a systematic review. Hum Resour Health. 19(103). https://doi.org/10.1186/s12960-021-00643-7
- 13. Faculty of Nursing Staff. (2021). Registered nursing degree launches at Wainwright Health Centre. Faculty of Nursing, University of Calgary. https://nursing.ucalgary.ca/news/registered-nursing-degree-launches-wainwright-health-centre (accessed Feb. 11, 2023)
- 14. Faculty of Medicine and Dentistry. (2013). Annual Economic Impact. University of Alberta. https://issuu.com/uafomd/docs/annual_economic_impact_study
- 15. Lemky, K., Gagne, P., Konkin, J., Stobbe, K., Fearon, G., Blom, S., Lapointe, G.M. (2018). A review of methods to assess the economic impact of distributed medical education (DME) in Canada. Canadian Medical Education Journal. 9(1). 10.36834/cmej.43343.
- 16. Hogenbirk, J.C., Robinson, D.R. & Strasser, R.P. (2021). Distributed education enables distributed economic impact: the economic contribution of the Northern Ontario School of Medicine to communities in Canada. Health Econ Rev. 11(20) https://doi.org/10.1186/s13561-021-00317-z

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The mission of the O'Brien Institute for Public Health is to advance public health through research excellence. Our role is to support academic scholars to tackle public health challenges, bringing them together with health practitioners, citizens, governments, businesses, and non-governmental organizations when collective actions is required.

The Centre operates using a partnership model where community organizations and university researchers bring health policy challenges and solutions to the Centre. We broker partnerships between those with public health challenges and those working on solutions. We bring together all the key players - citizens, community groups, researchers, government officials and health system leaders to ensure we have both the necessary expertise at the table and a 360 degree view of the challenge.

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