Rural physician recruitment and retention

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INTRODUCTION & BACKGROUND

The former executive director of the federal government's now-defunct Office of Rural Health once stated "If there is two-tier medicine in Canada, it's not rich and poor—it's urban versus rural".¹ Despite the Canada Health Act's guarantee of accessibility of healthcare to all Canadians, those living in rural communities face a different healthcare experience compared to urbanites. Approximately one third of Canadians live in rural communities—however, currently under one tenth of physicians practice rurally to serve these 10 million people.³

Although several technical definitions of "rural area" exist, Statistics Canada currently defines the term as a geographical area with fewer than 1000 people or a population density under 400 people per square kilometer.² Compared to their urban counterparts, the rural population on average suffers from lower self-reported health status, higher rates of premature death in young people, higher all-cause mortality, and lower life expectancy. They also experience higher rates of smoking, drinking, obesity, poor nutrition, violence, accidental death, and unemployment, as well as lower education rates and lower socioeconomic status.¹ Furthermore, they include a higher proportion of groups at increased risk for poor health status and healthcare access such as children, elderly, and Aboriginals. There are nearly 1.4 million First Nations and Inuit in Canada, and they are among the most vulnerable individuals in the country, experiencing nearly 3-fold incidence of HIV, up to 4-fold rates of infant mortality, 6-fold suicide rate, a 30- to 186-fold risk of tuberculosis, as well as an average life expectancy 7 years lower than the national mean.⁴

This unambiguously harsher risk profile for rural populations underscores the need for enhanced efforts to target the recruitment and retention of physicians to these at-risk areas which at present are served by only 16% of Canada's family physicians and a mere 2.4% of specialists.³

INCENTIVES TO ESTABLISH RURAL PRACTICE

What makes physicians more likely to establish a rural practice over an urban practice? For starters, recruitment of physicians to rural areas relies heavily on attracting those freshly graduating from medical school. Surveys of medical students have shown that expected lifestyle—including favourable geographic location and access to recreational opportunities—is the largest factor in medical students' decisions on where to practice.⁵

Not surprisingly, it has been shown that medical students with previous experience in rural communities are more likely to establish practice in such areas. It was found that the odds of establishing a rural practice are 5 times higher in those with a rural background or schooling compared to those with an urban background or schooling. Additionally, new doctors are 3 times as likely to establish a rural practice if their partner lives in a rural area.^{6,7}

THE CURRENT STATE OF CANADIAN RURAL PHYSICIAN RECRUITMENT AND RETENTION

However, research shows that only 10.8% of those entering medical school come from rural backgrounds. Data from Ontario has shown that fewer rural than urban students actually apply to medical school, and those that do apply are accepted less often, even when possessing MCAT and GPA scores comparable to urban students. The discrepancy in number and acceptance rates of rural versus urban applicants is believed to be linked to differing educational status in these areas. Rural applicants receive less encouragement to participate in higher education, have fewer role models, and experience less intracurricular and extracurricular academic opportunity than their urban counterparts.⁷

Physician retention is similarly challenging for rural communities. Continuing medical education (CME) is a significant factor in reducing rural physicians' feelings of professional isolation, and thus influences retention. The reality, however, is that in rural communities, opportunities for CME are limited due to geographic isolation, financial burden of attending far-off CME events, and lost earnings from taking time off work, as well as organizational limitations such as insufficient staff to replace those who wish to take time for CME participation.⁸

Access to specialist care is markedly lacking in rural communities. In a study examining rural mental health specialists, it was found that geographic, financial, and systemic factors are most significant in creating the discrepancy in recruitment. Specialists tend to find rural communities less attractive as potential workplaces due to decreased resources and professional isolation, and rural communities are often too small to justify and financially support the presence of specialists. The few that do practice rurally tend to have very long waiting lists, ranging from months to over 2 years, and cover a disproportionately large geographic area, making patient access a challenge.⁹

RURAL RECRUITMENT STRATEGIES

In Canada, many strategies have been employed to improve rural physician recruitment and retention to these rural areas. Although varied, these strategies fit roughly into 3 broad categories: financial incentives, use of international medical graduates (IMGs), and programs implemented at the level of undergraduate medical training. Each of these strategies has been met with variable success and as such there has been no definite answer to improving the physician shortage.

FINANCIAL INCENTIVES

Financial incentives are the foremost approach to improving physician recruitment in rural areas. Although conventional, these types of incentives are quite varied in their scope and implementation. Offered by Regional Health Authorities (RHAs) and Northern Medical Services (NMS), these incentives can be divided into those that are offered before and after the completion of medical educa-

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tion.¹⁰ The former include bursaries and forgivable loans that are given in return for several years of service. The latter include anything ranging from travel or vehicle allowances and housing to licencing and insurance supports. Incentives can total up to \$50,000 for the first year of service, with the average RHA support package totaling \$20,000. Studies have shown that these incentive programs do accomplish their goal in the short term, attracting new graduates to underserved areas. It has been speculated that the increasing cost of medical education and student debt have contributed to this short-term success. Unfortunately, long-term effectiveness is not nearly as promising, with many physicians migrating to urban centres shortly after their return-of-service obligations are fulfilled.¹¹

INTERNATIONAL MEDICAL GRADUATES

IMGs are another resource that has been used to fill the physician void in rural areas. It is estimated that about a quarter of Canada's physicians are trained internationally, with the highest proportions concentrated in areas with largely rural populations.¹² An IMG's greatest obstacle to practicing in Canada is licencing. Provisional licences are often granted to IMGs so that they are able to practice under certain restrictions until they complete the required postgraduate medical training in Canada and become fully licenced. These provisional licences are often coupled with rural contracts and are used as a means of satisfying the immediate need for rural physicians. The use of IMGs has come under some scrutiny, both logistically and ethically. A major issue is that of assessing the equivalency of medical training. With the obvious concern for patient safety and the quality of healthcare delivered, the evaluation of international medical education is often controversial. Particularly troubling are the so-called "diploma mills" that produce medical graduates who have had little to no patient contact. Long-term, IMGs also tend to migrate disproportionately to urban centres once they become fully licenced. This has stirred up concern that IMGs use rural contracts as an expedient route to becoming fully licenced, ultimately allowing them to practice in an urban setting. Rural populations suffer as a consequence, contending with a high rate of physician turnover.

Ethically, the use of IMGs has come under fire for its tendency to recruit physicians from developing countries that are in desperate need of physicians.¹³ In 2001, the South African High Commissioner to Canada criticized Canada for recruiting South African physicians at a time when the South African healthcare system was overwhelmed. There is also the issue of IMGs' right to determine where they practice and migrate to, rights that are stifled by these rural contracts.

UNDERGRADUATE MEDICAL EDUCATION

As mentioned earlier, medical students with rural experience or those who originate from a rural community are found to be more likely to practice in a rural setting. It is no surprise that there are many programs at the level of undergraduate medical education that seek to bolster rural recruitment by taking advantage of this. Aside from removing barriers to application and enrollment with policies such as lower GPA and MCAT cutoffs and rural student quotas, many medical schools also integrate rural medicine experiences into their curriculum.¹⁴ Preliminarily, exposing students to rural medicine in their training years has been shown to benefit rural recruiting. However, data on

the success of these programs remains limited, with the studies that do exist coming from only a few Canadian medical schools.³ In addition, many of the studies rely heavily on surveys and questionnaires which are subject to quite a few biases. Nevertheless, interventions at the level of medical education seem to be one of the more successful and promising avenues to pursue in improving the rural situation.

CONCLUSION

There is a true disparity between urban and rural healthcare. At the heart of this inequity is the rural physician shortage. Although many strategies have been employed to attempt to rectify the issue, long-term outcomes are less than favourable. Constant physician turnover trickles down to a decreased quality of care. Fortunately, strategies to recruit rural students and expose medical trainees to rural medicine have shown early promise. More robust studies are required to adequately evaluate their effectiveness.

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