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LESSONS IN LEARNING

Aboriginal and rural under-representation in Canada's medical schools

April 17, 2008

If there is two-tiered medicine in Canada, it's not rich and poor, it's urban versus rural.

—Dr. John Wotton

Canadian medical schools do not enrol representative numbers of Aboriginal or rural Canadians. At the same time, Aboriginal and rural communities face shortages of medical personnel and relatively poor health outcomes, compared to the rest of the country. Research suggests that efforts to train greater numbers of doctors from under-represented communities will have the added benefit of improving health services and outcomes in these communities.

Under-representation in medical schools

A survey of first-year medical students conducted in 2001 revealed that only 10.8% of the students were from rural areas, even though 22.4% of Canadians live in rural areas.[1] A more recent study conducted in Ontario found that only 7.3% of Ontario medical school applicants were from rural areas, while 13% of the Ontario population is rural.[2]

For Aboriginal students, the situation is even worse: they made up only 0.7% of the first-year class in 2001, despite accounting for 4.5% of the Canadian population.[3] Medical school enrolment numbers are particularly low among rural Aboriginals: while half of the Aboriginal population is rural, only one-third of Aboriginal medical students are from rural areas.[4]

Underserved communities

Given the low numbers of rural and Aboriginal students in medical schools, it is perhaps not surprising that rural and Aboriginal communities face critical shortages of medical personnel. Although approximately 20% of Canadians live in rural areas, only 10% of Canadian physicians practice in rural areas. Access to specialists is particularly problematic in rural areas, as 87% of rural doctors are family physicians.[5]

In addition to shortages of medical personnel, the Ministerial Advisory Council on Rural Health has argued that rural, remote, northern and Aboriginal communities suffer from a lack of services in all of the following areas: health promotion programs, diagnostic services, emergency and acute care, non-acute care, and services for special-needs groups such as seniors and people with disabilities.[6]

Given that half of the Aboriginal people in Canada live in rural areas, rural shortages of health-care services have a particular impact on Aboriginal communities. In addition to shortages of health-care services, many Aboriginals also face other health-care obstacles such as a lack of services in their own language, insensitivity or lack of awareness of their cultural practices, and problems associated with insensitivity or lack of awareness of their cultural practices.[7]

Health challenges in rural and Aboriginal communities

The health profile of rural and Aboriginal communities lends a degree of urgency to the issues of under-representation and under-servicing noted above.

Rural Canadians enjoy some health benefits relative to their urban counterparts: for example, cancer[8] and asthma rates[9] are lower in rural Canada than in urban areas. However, life expectancy at birth is nearly three years shorter for rural men (73.98) than for urban men (76.77). Rural Canadians are more likely to report that their health is either fair or poor, more likely to report being overweight or obese, more likely to engage in unhealthy behaviours (e.g., smoking) and less likely to engage in healthy behaviours (e.g., eating 5 or more servings of fruit and vegetables every day). For women, the prevalence of diabetes is higher in rural areas (5.8% vs. 3.9% in urban areas); for both sexes, the prevalence of arthritis is higher (17.5% vs. 15.4% in urban areas), age-standardized mortality rates are higher among rural populations, and mortality rates due to injury and poisoning are substantially higher in rural areas.[10]

Health outcomes are even poorer among Aboriginal communities. Life expectancy at birth is 7.4 years shorter for Aboriginal men and 5.2 years shorter for Aboriginal women, compared to Canadian population averages. As well, the infant mortality rate is higher among Aboriginal people than in the overall Canadian population (6.4 vs. 5.5 per 1,000 live births).[11] The age-standardized prevalence of diabetes is three to five times higher among Aboriginal people than in the general population;[12] smoking rates are dramatically higher among Aboriginal people (62% vs. 24% among all Canadians 15 and over);[13] and off-reserve Aboriginal people are more likely than non-Aboriginal people to be overweight or obese (comparable data are not available for on-reserve Aboriginal people).[14]

Lessons in Learning: Redressing the under-representation of Aboriginal and rural students in Canadian medical schools

A workforce that mirrors the demographic face of Canada is not only an expression of equity, but should also improve the quality of health care in underserved communities. Research shows that when underserved populations are treated by a physician from a similar background, they are more likely to seek care and comply with physician directives, and are more responsive to health promotion and prevention advice.[15,16]

The research also reveals that physicians from under-represented groups (e.g., Aboriginal doctors) are more likely to treat patients who are disadvantaged, chronically ill, or who suffer from more than one illness—patient characteristics that are frequently found in Aboriginal and rural communities.[17] In addition, under-represented minorities frequently return to their home communities to practice. In one study, 94% of Inuit health-care students planned to return to the North after graduating.[18] Similarly, rural medical students are twice as likely to express the desire to work in rural regions compared to their urban peers.[19]

Efforts to address the issue of under-representation have included attempting to inspire children to consider a career in health care while they are in elementary school;[20] modifying admission criteria for rural[21] and Aboriginal students;[22] setting aside seats in medical schools specifically for targeted minorities;[23] altering the nature of admissions committees to include representatives from under-represented minorities;[24] and changing the structure of government aid for needy students.[25]

At the University of Manitoba, Aboriginal students who want to go into medicine can participate in the Special Premedical Studies Program (SPSP). This program helps them to improve their academic abilities: Aboriginal students often report that they have achieved the marks necessary to enter university, but once on campus, find their abilities weak, especially in science, written English, class presentations, and study skills.[26,27] The SPSP responds to students' academic concerns by providing them with individualized tutoring, academic advice and extensive pre-university orientation to help consolidate their skills.

For many Aboriginal students, the cultural dislocation of moving from a small community where they are known by everyone to a large city where they are known by no one is a significant challenge.[28] The SPSP and allied "Access Programs" at the University of Manitoba smooth the transition from rural to urban living by encouraging mutual support among Aboriginal students, fostering a supportive community based on similar backgrounds and common aspirations for a future in medicine. As students often experience personal or family problems during their studies,[29] the SPSP also provides personal counselling.

In Alberta, the Rural Integrated Community Clerkship (RICC) provides an opportunity for third-year medical students to learn about generalist specialties in a rural or regional context with the goal of encouraging students to pursue careers in rural communities.

Another approach to boosting representation of Aboriginal and rural students in medical school has been to build universities in close proximity to their communities. International research suggests that this approach can boost the stock of rural physicians.[30] For example, as a result of Australian efforts to build a rural focus into medical training, the number of rural students in Australian medical schools increased from 10% in 1989 to 25% in 2000.[31]

In Canada, medical schools in British Columbia, Quebec and the Atlantic region have opened satellite medical campuses in rural and remote locations. As well, the Northern Ontario School of Medicine (NOSM) opened recently with campuses in Sudbury and Thunder Bay and satellite teaching and research centres in more remote locations. Increasing the diversity of the physician population is an explicit component of NOSM's mandate:

It is the intention of the Northern Ontario School of Medicine to maximize the recruitment of students who are from Northern Ontario and/or students who have a strong interest in and aptitude for practising medicine in Northern urban, rural and remote communities. We are also committed to recruiting Aboriginal and Franco-Ontarian students.[32]

NOSM's first-year classes between 2005 and 2007 included large numbers of rural, remote, Northern and Aboriginal students. Each year, between 5% and 11% of the class is Aboriginal students, approximately half the students are from rural and remote areas, and close to 90% are from Northern Ontario.[33]

NOSM and the Access Programs of the University of Manitoba are examples of steps that can be taken to begin to redress the imbalance of representation of Aboriginal and rural students in medical programs. However, the issue of minority under-representation in medicine is complex and arises from the longstanding disadvantages imposed by socio-economic circumstances, geography and ethnicity. While current efforts hold promise, remaking the face of medicine to conform to the contours of the Canadian population will remain a work in progress for some years to come.

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