

## Will increasing medical school enrolment solve Canada's physician supply problems?

## Greg L. Stoddart, PhD; Morris L. Barer, PhD

t its annual meeting in August, the Canadian Medical Association called for a dramatic increase in enrolment in Canada's 16 medical schools. During a news conference, CMA President Dr. Hugh Scully proposed that first-year enrolment be raised immediately to 2000 from its current level of 1577, a 27% increase, citing fears of a worsening shortage of physicians in some specialties and some areas of the country.

Speaking at the same meeting, Dr. Lorne Tyrrell of the Association of Canadian Medical Colleges echoed the views of many physicians when he placed a large part of the blame for the current situation on the 10% cut in first-year enrolment made in 1993–94 in response to a recommendation contained in a comprehensive report on medical resource policy that we prepared in 1991 for the Federal/Provincial/Territorial Conference of Deputy Ministers of Health.<sup>2</sup>

The recommendation at that time was to stabilize the physician supply in relation to the size of the population, with adjustments to medical school enrolment being but one component of the supply-stabilization policy package. There were more than 50 additional recommendations covering all aspects of medical training and practice.

Nevertheless, medical school enrolment became one of the very few recommendations acted upon. It was implemented despite our explicit warning that in an area as complex as physician services, complementary policies would need to be adopted simultaneously.

Today's problems with physician availability appear to be serious. Access to doctors in rural and remote areas continues to be less than adequate, but now it appears that people are having trouble finding a doctor in some small and medium-sized cities as well. In Ontario, 54 communities in southern Ontario are currently designated "underserviced" by the provincial Ministry of Health, in addition to 33 in the northern part of the province that has traditionally been the main focus of accessibility problems. Two years ago only 32 southern communities received this designation, and they were looking for about half as many family physicians as is the case now (Deborah Limoges, Ontario Ministry of Health: personal communication, 1999). Medical leaders, local physicians and civic officials alike are labelling the situation a "crisis."

The causes of the new problems are far from clear. Although the reductions in enrolment earlier this decade are often implicated, they were much smaller than the compensatory increases currently being proposed. More importantly, because it takes at least 6 years to train a doctor, the

main effects of those reductions will only start to be felt this year and next. They may add to future problems, but they do not explain why the situation has apparently become so serious in the past 5 years.

Nor can these problems be attributed to a sudden emergence of an inadequate overall supply. In the years leading up to the reductions, the supply of physicians grew faster than the population virtually every year for almost 30 consecutive years. Between 1964 and 1993, the physician supply increased by 170%, while the country's population grew by only 48%.<sup>3,4</sup>

Much of the increase in physician supply was fuelled by a major expansion in domestic training capacity, yet despite this dramatic growth in physician supply, many rural and remote areas remained relatively underserviced. Nor did physicians distribute themselves across specialties in ways that corresponded to the changing needs of their patients. There were always shortages — sometimes very serious ones — in some locations and within some specialties, even while recognized surpluses emerged in others.

For the past decade, the physician/population ratio in Canada has been roughly stable. Yet 10 years ago there was a widespread view that Canada had an overall surplus of physicians. It is hard to believe that a modest 3% reduction in the physician/population ratio between 1993 and 1998, which came on the heels of an 80% increase in that ratio over the previous 29 years, can create an instant shortage.

Several other possible causes are often mentioned by advocates of increased enrolment. The number of dissatisfied physicians leaving Canada is said to be increasing. The baby boomer generation of doctors will soon start to retire. Doctors are increasingly concerned about their lifestyle and may be reducing their hours of work, choosing less demanding specialties or restricting their practices to particular types of cases or services. The expectations that patients have of their physicians and what constitutes acceptable "service" may also be changing. Finally, the aging of the population is often said to be increasing the need for medical care, despite extensive evidence that it is not the increase in the *number* of the elderly as much as the changes in the number and nature of the services provided to them that are responsible for increased utilization of physicians.<sup>5</sup>

In a complex situation like this, it is unlikely that there is a single primary cause. All of the above factors may be involved to greater or lesser degrees (and there are undoubtedly others). But there are a few facts that seem beyond dispute. First, the number of physicians leaving Canada in 1998



was smaller, while the number of physicians returning to Canada was greater, than in each of the previous 2 years: 731 physicians left Canada in 1996, 659 in 1997 and 569 in 1998; Canadian physicians returning from abroad numbered 218 in 1996, 227 in 1997 and 321 in 1998.6 Second, although the number of retirements may soon begin to increase, this has not yet assumed overall supply significance, although it may create serious problems in specific towns or communities. Although each phenomenon may be a potential cause for concern, neither is the cause of the current "crisis."

Third, to the extent that physicians are choosing to restrict practices, or choosing to practise in crowded major urban centres rather than small or medium-sized towns, this reflects a long-standing failure by the profession, governments and health care professional training programs. They have failed to support or implement changes in training, organization and funding that would result in more closely aligning physician availability with the needs of patients. For example, at least since the introduction of medicare, physicians' professional associations have been very reluctant to embrace new models of care that have demonstrated the potential to reduce the need for physicians.<sup>7,8</sup> As a result, even today nurse practitioners are used much less than they could be, there are fewer multiprofessional community health centres than might be expected and alternatives to fee-forservice payments remain relatively uncommon.

What is needed now is a careful analysis and assessment of the relative importance of the different potential causes, and the alternatives for addressing them. The analysis should raise other questions as well. For example, if reduced hours of work are a major factor, is this reflected in lower physician incomes? If not, and if on average physicians are still seeing the same number of patients in a week, then are they spending less time with the average patient than they used to? What are the implications for continuity and quality of care? What role have individual billing ceilings for doctors played?

The recent appointment of Dr. Robert McKendry by the Ontario Minister of Health to find out the facts on "the scope and cause of the physician supply issue" in Ontario is a welcome development. To date the data on all of the factors and questions identified above have not been assembled in one place. Dr. McKendry's adjudication of the claims regarding causes, and his empirical evidence, should be an important contribution not only for Ontario but also for other provinces experiencing similar problems.

We encourage Dr. McKendry to extend his inquiry to a consideration of whether a major increase in medical school enrolment is likely to solve the current problems or forestall future problems. Historically, there have been few mechanisms to guarantee the linkage of the training and distribution of physicians to the changing needs of Canadians. Unless this is remedied, a significant proportion of any additional training capacity could be wasted. Certainly the past record offers no comfort at all that an increase in enrolment in the country's medical schools, in the absence of other initiatives, will alleviate the new problems, let alone the long-standing short-

ages in rural and remote areas and in some specialties.

His inquiry would also serve Canadians well by considering alternatives, and other complements, to enrolment increases. The widespread introduction of nurse practitioners in primary care, and increased use of regional organizations funded on the basis of their populations' needs, which would then contract with physicians and other health care professionals for appropriate services, are 2 candidates worth considering. The implicit assumption in the calls for increased medical school enrolment is that things must be done in future as they have been done in the past. But if the current situation is as urgent as medical leaders and others suggest, then perhaps this finally affords an opportunity to capitalize on some of this long-neglected potential.

Canadians have been fortunate to have a supply of dedicated physicians looking after their care. The possibility that this is in jeopardy must be taken seriously. Careful analysis may show that some enrolment increase is warranted. But just as past enrolment increases alone did not solve long-standing problems, an exclusive focus on medical school enrolment or on the number of doctors is unlikely to do so in the future. Until there is a better understanding of the current problems, a massive increase in enrolment seems like a prescription without a diagnosis — generally considered to be bad medicine.

Greg Stoddart is a Professor with the Centre for Health Economics and Policy Analysis and the Department of Clinical Epidemiology and Biostatistics, McMaster University, Hamilton, Ont. Morris Barer is Director, Centre for Health Services and Policy Research, and Professor, Department of Health Care and Epidemiology, University of British Columbia, Vancouver, BC.

Competing interests: None declared.

## References

- Sullivan P. Concerns about size of MD workforce, medicine's future dominate CMA annual meeting. CMAJ 1999;161(5):561-2.
- Barer ML, Stoddart GL. Toward Integrated Medical Resource Policies for Canada. Report prepared for Federal/Provincial/Territorial Conference of Deputy Ministers of Health, 1991.
- Canadian Institute for Health Information. Table 15.1, Active civilian physicians (excluding interns and residents), by province, Canada, 1961–1995. In: Supply and Distribution of Physicians 1961–1995. Ottawa: The Institute; 1997. p. 61.
- Canadian Institute for Health Information. Table 1.0, Active civilian physicians by specialty and province, Canada, 1998, and Appendix 1, Table 1-1, Statistics Canada population estimates for Canada, the provinces and territories, 1961–1998. In: Supply, distribution and migration of Canadian physicians, 1998. Ottawa: The Institute; 1998.
- Barer ML, Evans RG, Hertzman C. Avalanche or glacier: health care and the demographic rhetoric. Can J Aging 1995;14:193-224.
- Canadian Institute for Health Information. Supply, distribution and migration of Canadian physicians, 1996, 1997 and 1998. Ottawa: The Institute; 1997, 1998 and 1999.
- Spitzer WO. The nurse practioner revisited: slow death of a good idea. N Engl J Med 1994;310(6):1049-51.
- Spitzer WO. Evidence that justifies the introduction of new health professionals. In: Slayton P, Trebilcock M, editors. The professions and public policy. Toronto: University of Toronto Press; 1978. p. 211-36.
  Barer ML, Stoddart GL. Improving Access to Needed Medical Services in Rural
- Barer ML, Stoddart GL. Improving Access to Needed Medical Services in Rural and Remote Canadian Communities: Recruitment and Retention Revisited. Discussion paper prepared for the Federal/Provincial/Territorial Advisory Committee on Health Human Resources, June 1999.

Correspondence to: Dr. Greg L. Stoddart, Centre for Health Economics and Policy Analysis, Room HSC-3H1A, McMaster University, 1200 Main Street West, Hamilton, ON L8N 3Z5.