Chan has suggested that a bigger decline in the output of training programs was caused by an increase in the length of training required to meet new certification standards in family medicine and an increase in the number of graduates opting for specialty training. He could have pointed out that the switch to a 2-year family medicine program was needed to increase portability within Canada and to meet international standards in education. The government did not provide any additional postgraduate positions to accommodate the extra year of training and instead used the re-entry positions usually reserved for international medical graduates and specialty training.

It is also worth noting that there was a net loss of 4000 physicians from Canada in a single decade, at a total cost of approximately \$6 billion to the taxpayers who paid for their education. A physician pool that includes a substantial proportion of aging physicians cannot afford to lose any of its young physicians this way.

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A recent *CMAJ* article¹ does not give Ben Chan's study² the emphasis it deserves. This is an important document on physician human resources that will have as much impact as the landmark Barer–Stoddart report of 1991.³ Chan diplomatically says "one cannot 'prove' that any particular policy 'caused' a particular trend to occur. The reader is encouraged to draw his or her own conclusion."²

However, most of us in the "business" of health care provision recognize the poor quality of decisions made a decade ago by departments of health, licensing bodies, medical associations and medical schools. These decisions were made in the absence of national or regional physician resource planning and without allowance for checks along the way to correct any adverse outcomes.

For the 2.4 million people living in Atlantic Canada, the problem is further complicated by the existence of 4 uncoordinated health care plans, one for each province. Economic restraints have not allowed the 2 medical schools in Atlantic Canada to raise their enrolments or adjust postgraduate residency training positions. Physician-to-population ratios for the Atlantic provinces expose the difference in physician resources between this region and the rest of Canada, particularly for specialists (Fig. 1).⁴

Unfortunately, the same players are now making decisions to increase physician supply, again without national or regional physician resource planning. There is an immediate need to review the increasing health care demands of Canadians and the new technologies becoming available within the Canadian health care system, but already there are plans to increase medical school enrolment. These plans do not account for the fact that primary care physicians are not providing comprehensive care, 5 nor do they account for the rising demands for physician ex-

tenders in both primary and acute hospital care. We can easily predict the appearance of another report in the next decade, describing another "crisis" and another perceived surplus.

Atlantic Canada urgently needs regional physician resource planning; in fact, we urgently need regional health care planning.

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[Benjamin Chan responds:]

My report on Canada's physician workforce¹ does not trivialize the impact of undergraduate enrolment cuts in the future, but it rejects the notion that such cuts were the driving force behind Canada's declining physi-

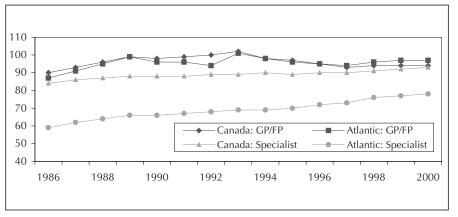


Fig. 1: Physicians per 100 000 population, Altantic provinces, 1986–2000. Calculated from Statistics Canada population data and physician data from the Canadian Institute of Health Information (available on the CMA web site).

cian supply over the past decade. This is simple arithmetic: an enrolment cut in 1992 would not have been felt until 1998 at the earliest, when those taking the shortest route to licensure entered the workforce.

My paper draws attention to other, more significant policies, such as the decision to increase the ratio of specialists to family physicians trained. This change was not made to accommodate more doctors opting for specialty training or because of insufficient funding, as Scully suggests. Rather, it was an attempt to meet the vague objective of ìrestoringî the 50:50 mix of specialists to family physicians, at a time when some provinces had slightly more of the latter.2 This policy was implemented without public debate, documented evidence of need or projections of its impact. It led to a precipitous drop in the inflow of new doctors over several years and was the single biggest factor behind Canada's declining physician supply.

I agree with Scully, in principle, that the net loss of Canadian physicians abroad over the past decade represents a heavy burden for our nation. I welcome any attempts by policy-makers to encourage physicians to remain in Canada. However, Canada has lived with the brain drain for over 20 years, and its magnitude has not changed appreciably during the past decade. Hence, the brain drain was not a pivotal factor in the drop in our physician supply. Furthermore, our brain drain has historically been buffered by a "brain gain" from other countries. Yet the entry of foreign medical graduates was drastically curtailed in the 1990s, because of decisions by governments and organized medicine.2

Ultimately, my report was not intended to point the finger at governments, doctors or the academics who supplied the numbers. No one can be expected to predict the future with complete accuracy. Rather, I have offered some feedback to policy-makers on the impact of their actions, both intended and unintended. It is through feedback that we learn from our inevitable mistakes so that we can do a

better job next time. Peltekian is correct in asserting that we need a comprehensive, coordinated framework for health human resource planning. We must monitor trends every year, set plans more frequently, and continually fine-tune our policies on admissions, postgraduate training and foreign graduate intake. We must do a better job of anticipating future demand, identifying more efficient models of care and reducing inappropriate care. Finally, we must start behaving like a nation and engender the kind of cooperation across the provinces that is needed to serve the public.

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Restricted access for PPIs not a panacea

We read with interest the findings of Marshall and associates, who found that interventions to reduce the cost to the British Columbia government of 2 drug classes (reference-based pricing for histamine-2 receptor antagonists and restricted access through special authority for proton pump inhibitors [PPIs]) led to substantial savings in the 12-month period after implementation.

In 1992 the Australian government introduced a similar policy of special authority for PPIs to control drug costs. In contrast to the Canadian system, in which prescriptions issued by gastroenterologists were exempt from the policy, in Australia all cases of esophagitis for which PPIs were prescribed and dispensed had to be endoscopically proven, and hence specialists

were not excluded. Despite the restrictions imposed by the policy, Australia experienced a progressive increase in prescriptions for PPIs, and by 1999 PPIs accounted for 34% of antiulcer prescriptions and 51% of government expenditure on antiulcerants.² Concurrently, rates of upper gastrointestinal endoscopy in New South Wales rose by 40%.³ Ultimately, in 2001 the Australian government removed the prescribing restriction on PPIs.

Although the findings of Marshall and associates¹ will be of great interest to administrators in other health case systems struggling with the cost of these drugs, data on other changes in practice, such as referral to gastroenterologists, are needed to more fully assess the overall financial impact of the Canadian strategy.

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[Three of the authors respond:]

We agree that no economic evaluation of drug formulary policy is complete without careful consideration of its effects on resource utilization in other health care sectors. In our article we emphasized the need for more holistic reviews of reference-based pricing and restricted-access policies, with attention to outcomes such as health