

# New bottles, same old wine: right and wrong on physician supply

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In this issue (pages 723 and 731) Eva Ryten and colleagues report on their well-executed longitudinal study of postgraduate migration and specialty choice by Canadian medical school graduates. By successfully tracking the entire Class of 1989 from graduation to the spring of 1996, they generate new and quite interesting data on patterns of location and postgraduate training. Unfortunately, they recruit these findings to support an old and familiar story whose fundamental flaws these data can do nothing to remedy.

The message in the first of their 2 articles is simple. Canada's annual production of physicians, after downward adjustment for migration (primarily to the US), is far too small to replace physicians lost through retirement, death and out-migration and to provide additional capacity for a growing population. The physician-to-population ratio will therefore decline, which will imply a growing physician shortage. Recent cuts in class sizes were clearly ill-advised and must be reversed if Canada is to attain "self-sufficiency" in its physician supply. The new data provide a more precise measure of the extent of migration out of the country, and thus the "yield" of a graduating class. (They also provide detail on inter-provincial migration.)

In their second article Ryten and colleagues report that a number of graduates of the Class of 1989 reached their (apparently) final fields of practice by paths that included significant breaks in training and changes in choice of specialty. However, changes to licensure requirements since 1993 have reduced the opportunity for such breaks and crossovers. They believe that "Rigidities in the post-1993 training environment point to the emergence of a number of serious problems." Apart from the distress of recent graduates whose opportunities have been restricted, these problems boil down to a concern that the resulting specialty mix may not match the needs of the population.

These accounts are fundamentally flawed on 2 levels. First, as the authors themselves emphasize in their criticism of earlier studies, "simple . . . comparisons preclude an understanding of the dynamics driving changes in numbers. Ignoring the dynamics can lead to serious errors in projecting future trends." Very true. But Ryten and colleagues provide no analysis of the dynamics behind their own numbers. Their study, although longitudinal, is of a single graduating year. We are invited, implicitly, to assume that other classes would display the same trajectory.

Yet the Class of 1989 surely responded to the policy and practice environments that prevailed both in Canada and the US. Both environments have been changing quite rapidly in ways that have affected the risks and benefits of migration in the past and will surely continue to do so. Ryten and colleagues assume in effect that migration takes place in a vacuum, independent of external circumstances.

These changing external circumstances may be showing up in the time-pattern of out-migration of the 1989 class (Table 5, page 728). Three-quarters (148/193) of the permanent (thus far) departures involved graduates who left either immediately after graduation or in 1994 and 1995. Many of those who departed immediately may have been Americans, most of whom, as the authors note, are now back home. But the later outflows are both larger and more interesting.



*Editorial*

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Every provincial government in Canada has in recent years been trying not only to hold down physicians' fees but also to cap total payments. Some have tried to discourage new physicians from entering practice. Correspondingly, total payments to physicians have flattened out since 1992 and, as a share of national income, have actually fallen. Medical associations have quickly grasped the economic implications of increased numbers of physicians sharing a fixed budget.

Whether these policies are well or ill advised (where you stand rather depends on where you sit), this is the environment faced by physicians seeking to enter practice in Canada. Payment policies are clearly designed to limit the growth of service volumes. The recent outflow may well reflect physicians' responses to this more hostile economic climate. To react by increasing the number of physicians trained would be, to put it mildly, inconsistent. From the point of view of provincial governments (and medical associations), the outflow is a solution, not a problem.

In the US, the collapse of the Clinton health plan in 1994 was followed by a dramatic acceleration in the evolution of "managed care." Managed-care organizations have embraced the "gatekeeper" concept, relying on generalists as first-line providers to keep patients away from expensive specialists. The immediate effect was a scramble to recruit generalists. In Canada, we heard a giant sucking sound to the south; this was not unanticipated.<sup>1</sup>

But that was a short-term adjustment. US forecasts now indicate a sufficiency of home-grown generalists, along with continuing rapid growth in the already abundant supply of specialists. Moreover, managed-care organizations are trying to control their costs not only by limiting access to specialists but by using more "physician extenders": nurse-practitioners and physician associates. As the open-ended fee-for-service market shrinks, who will pay for the new physicians?

American specialists are fighting back in various ways against this threat to their markets. But data and anecdote both indicate that specialists' incomes are falling.<sup>2</sup> (What's the difference between a seagull and a San Diego ophthalmologist? The seagull can still put a deposit on a new Lexus.) Such stories have been heard before, and the US environment is presently so chaotic that any prediction can be questioned. But health spending growth since 1992 *has* been the slowest in decades.<sup>3</sup> The practice environment has changed radically in the last 5 years and, despite criticism, managed care continues to be extended.

As Ryten and colleagues show, most of the Class of 1989 who left Canada are specialists. If their opportunities in the US are becoming much leaner, at the very least one should be extremely cautious about making projections on

the basis of past patterns. Some of the more extreme scenarios for managed care might well result in a net flow of physicians *returning* to Canada.

The authors make no mention of these contextual dynamics. On closer examination, however, it appears that this omission does not matter, because their "shortage" projections do not rest on the out-migration numbers anyway. Even if the whole Class of 1989 had stayed in Canada, Ryten and colleagues' calculations would still project a "shortage." The new data are, to appropriate Pooh-Bah's phrase, "merely corroborative detail, meant to lend an air of artistic verisimilitude. . . ."

Their conclusions hark back to the mechanical "manpower planning" of the 1970s and early 1980s. The key assumption, which is neither explicit nor justified, is that the "need" for physicians cannot be less than the current supply, *whatever that supply may be*. Self-sufficiency requires that domestic production be sufficient to prevent any decline in the physician-to-population ratio, from whatever level it may have attained, however it got there and regardless of what else may be going on. No other basis is offered for judging the adequacy of supply.

Why is the current ratio what it is? The authors note that in 1964 Justice Hall recommended that Canada's physician training capacity be doubled. They do not note that he assumed the baby boom would continue and that his population projections were too high by many millions. Instead of the roughly stable per capita physician supply that he explicitly intended, his recommendations set off a 25-year increase that did not plateau until the 1990s. The current level of physician supply can thus be traced to an erroneous population forecast made in 1964.

This was obvious as early as 1975, when physician immigration was sharply curtailed. It was politically much easier, however, to keep out foreigners than to shrink established medical schools. Proposals to reduce class sizes were held at bay by studies that used essentially the same arguments as those presented by Ryten and colleagues. Current service volumes or prevailing numbers of physicians were taken as minimum estimates of requirements. Various factors that might lead to increased needs or decreased supply were identified and quantified, while potentially off-setting factors were left out of the account. Projection of a shortage — if not now, then "soon" — was guaranteed. Lomas and colleagues<sup>4</sup> provided the definitive critique of such approaches, recommending that no more research funds be wasted on studies whose findings could easily be derived — on the back of an envelope — from their initial assumptions.

The same problems emerge in Ryten and colleagues' second article, in which they raise the possibility that



specialty imbalances or “shortages” may occur because the more flexible career paths that previously led graduates into certain specialties are now foreclosed. Again they implicitly, and without justification, define the right ratios as those emerging from the former environment. They offer as an example of imbalance the finding that only 42% of the Class of 1989 entered specialty practice or training, well short of the conventional target ratio of 50:50.

The Class of 1989, however, made most of their career decisions *before* the introduction of the new, more rigid and directive system that Ryten and colleagues criticize. That system did not create the imbalance they identify. On the contrary: post-1993 policy is attempting to address the situation that arose from the former environment. The authors note that 60% of graduates are now being directed into specialty training, without the option of dropping back into general practice qualification. They take a dim view of this “micro-management,” raising valid concerns about the perturbing effects of time lags, drop-outs and foreign training opportunities. But they offer neither evidence nor argument to suggest why more explicit management — inevitably imperfect — should lead to a less satisfactory specialty mix.

It would, however, be unfortunate if the real value of data such as those presented by Ryten and colleagues were overlooked in consequence. For example, the finding that career changes increased the number of specialists from the Class of 1989 by about 20%, with much higher proportions in some subspecialties (Table 3, page 735), indicates that these graduates made their initial choices on incomplete information. A more directive system that leads to a better numerical distribution of specialists but more unhappy square pegs stuck in round holes will surely have its own significant

problems. Can better information be made available or bail-out routes be provided?

More generally, we are entering a new environment in which explicit policy choices are possible — and probably inevitable. Important questions of delivery system organization and personnel substitution, which were washed off the agenda in the 1970s by the steady flow of new physicians, can now be re-opened. The rapidly growing and (in principle!) uncontentious attention to “evidence-based” or “outcome-oriented” medicine is also likely to have a much greater impact when the physician supply is no longer constantly increasing.

It may in this new environment become possible to give more serious consideration to a wider range of ways to ensure that Canadians get the medical care they need. Conversely, to expand the nation’s medical schools simply because the current magic ratio is threatened would once again foreclose these options — ignoring Santayana’s warning that “Those who cannot remember the past are condemned to repeat it.”

## References

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