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Physician workforce planning and boom–bust economic cycles: a retrospective on the Barer–Stoddart report

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Physician workforce planning and the health spending cycle

In March 1990, the Federal/Provincial/Territorial Conference of Deputy Ministers of Health commissioned health economists Morris Barer and Greg Stoddart to report on medical resource policy. Facing recession and a public debt crisis, health ministers sought to reduce or restrain health budgets. With limited control over physician care spending, they wanted guidance on restraining the growth of physician supply per capita.

Since universal hospital and medical care had been introduced in the 1960s, the number of practising physicians had increased by 108%, more than triple the 31% increase in Canada's population over the same period. Indeed, 4 new medical schools opened in the 1960s.[1] By the late 1970s, the perceived demand for medical services had stabilized and governments faced slower revenue growth after the Organization of the Petroleum Exporting Countries oil crisis. In the 1980s, the conventional wisdom among governments was that Canadian physician supply would soon outstrip health service demand, a perception sharpened by the recession and public debt crisis of the early 1990s. In response, provincial and territorial governments cut real spending on health and negotiated historically low fee-for-service agreements with medical associations.

Within this environment, Barer and Stoddart produced their mountainous 353-page report in 1991, covering all aspects of medical training and practice with a 13-page accessible executive summary.[2] It was a report whose recommendations were summarized, analyzed and occasionally criticized in many subsequent articles in this journal. Some of its more than 50 recommendations (and options) were aimed at stabilizing physician supply relative to population, but others addressed longer-term shifts through delivery model changes, which included support for primary care and medical services to chronically underserved regions and populations.

After the publication of the report, the provincial and territorial Ministers of Health met in Banff early in 1992. The ministers analyzed the Barer–Stoddart report recommendations and emerged from their meeting with 12 policy directions (Box 1).[3] As is now obvious, few of these policy directions were implemented by provincial and territorial governments — the most notable being major cuts to medical school enrolments, postgraduate medical training, and recruitment of international medical graduates for residency positions. Other structural changes were deferred or avoided despite warnings from Barer and Stoddart that complementary measures were also needed.[4] After Banff, there were few efforts to alter the form of physician remuneration to better align with the type of services provided (e.g., family medicine), or increase the number of nurse practitioners and physician assistants in chronically underserved rural and remote areas of the country.

Government decisions at the time assumed that the recession, low economic

Box 1: Condensed version of Provincial/Territorial Conference of Ministers of Health 12 strategic directions, Banff, Jan. 28, 1992[3]

- Reduce medical school entry class size by 10% by the fall of 1993 with future adjustments.
- Reduce postgraduate training positions by 10%.
- Reduce recruitment of visa trainee graduates of foreign medical schools into Canada for postgraduate medical training.
- Support the development of national clinical practice guidelines with emphasis on health outcome research.
- Establish predictable medical care spending through defined global, regional and individual practitioner budgets.
- Replace fee for service wherever that method of payment aligns poorly with the nature or objective of the services being provided.
- Increase use of alternative service delivery models.
- Restructure and rationalize funding of academic medical centres to align with educational objectives based on community health status needs.
- Introduce initiatives to improve access to clinical services in rural communities.
- Establish initiatives and processes to ensure the continuing competency of physicians.
- Recognize overlapping scopes of practices by replacing legislatively established exclusive fields of practice with a more circumscribed set of exclusive acts and reserved titles.
- Enhance information and its sharing to improve physician resource management, clinical practice and consumer education.

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growth and weakened public revenues would continue for years. This aligned with the Barer–Stoddart report's expenditure policy recommendations (No. 45 and 46) to limit health care expenditure increases to account for general inflation, population growth and the "needs composition" of the population. Responding to its own public finance crisis, the federal government followed the cost-cutting lead of the provinces, and (while reducing federal program spending) cut cash transfers to the provinces by an unprecedented 30%. However, contrary to expectations, prosperity returned by the late 1990s, accompanied by pressures on governments to increase health spending.

Although the health-spending boom that followed was less pronounced than in Medicare's formative years, the demand for health services grew. In the early 2000s, provincial and territorial decision-makers reversed course and increased entry to medical schools. Of course, given the minimum 6-year lag from medical school admission to practising doctor, these changes required many years to produce more practising physicians, and some doctors blamed Barer and Stoddart more than governments for the ensuing gap.[5,6]

Getting Barer–Stoddart right in the 2020s

The Barer–Stoddart report reinforced the belief that the supply and demand for physician services could be coordinated with the economic cycle via changing medical school enrolments (Table 1). The result was a physician:population ratio that stabilized between 184 and 191 physicians per 100 000 population from 1993 to 2006 (Figure 1). After this, and the infusion of new federal transfer cash through the 2004 Health Accord, the population-adjusted supply of physicians

Table 1: Five major phases in the policy and health spending cycle, 1957–2019

Pan-Canadian signature policies	Significance	PT health spending growth rate (real per capita)[9]	Perception
Major boom phase, 1957–1975		**12.7%**	**Physician shortage**
Hospital Insurance and Diagnostic Services Act, 1957	PT single-payer hospital care coverage across Canada, subject to federal legislative criteria, stimulated demand for more physician care		
Royal Commission on Health Services report, 1964	Predicted looming shortage and recommended expansion of medical education		
Medical Care Act, 1966	First step in establishing PT single-payer medical care coverage across Canada subject to federal legislative criteria		
Growth phase, 1976–1989		**2.9%**	**Oncoming physician surplus**
Established Programs Financing, 1977	Tying federal health transfers to rate of economic growth rather than provincial health spending		
Hall Review of Medicare, 1980	Concern about looming surplus of physicians		
Canada Health Act, 1984	Elimination of extra-billing opportunity to increase income		
Bust phase, 1990–1996		**–0.3%**	**Physician surplus**
Barer–Stoddart report, 1991	Host of recommendations including 10% reduction in medical school seats		
PT Ministers of Health, Banff communiqué, 1992	PT ministers cherry-picked measures from the Barer–Stoddart report to reduce physician supply		
Canada Health and Social Transfer cuts, 1995	Federal government makes massive (30%) cut to social transfer to PTs, including health		
Minor boom phase, 1997–2009		**4.0%**	**Physician shortage**
Romanow Commission report, 2002	Called for a reinvestment in health care by Ottawa to lever transformation of system		
Ten-Year Deal on Canada Health Transfer, 2004	Guarantee of 6% annual rate of growth in transfers to close the "Romanow gap"		
Very low-growth phase, 2010–2019		**1.0%**	**Physician shortage but also physician surplus**
2011 decision to reduce health transfer escalator to 3%	Although did not take effect until Trudeau administration, the policy was continued		
Bilateral health transfers, 2017	Provided limited funding for mental health and home care rather than for medical care		

Note: PT = provincial and territorial.

rose steadily from 2006 to 2018, flattening out at just more than 240 physicians per 100 000 population on the eve of the COVID-19 pandemic.

Three decades later, it is questionable whether we see the Barer–Stoddart report with greater clarity than it was initially received, understood and implemented. Moreover, the policy problem of physician workforce planning is once again pressing, given the impact of the COVID-19 pandemic, high inflation, low growth and another possible public sector fiscal crisis, combined with long-term shifts in work preferences as physicians seek better work–life balance.[7]

One of the most important points made by Barer and Stoddart was that physician supply should be examined within the context of a broader health human resource ecosystem. To deliver care, doctors work with other health professionals whose own shortages limit what physicians can do, irrespective of their own numbers. As the COVID-19 pandemic has shown, shortages of nurses and other health workers place serious constraints on access to the health services provided by physicians in tandem with these individuals. Although physicians are one aspect of human resources in the Canadian health system, the question of physician supply has received a disproportionate amount of attention, likely owing to physicians' role as health service gatekeepers.

It is important to remember that the policy, regulatory and administrative tools available to alter the supply of physicians are no more refined today than they were 3 decades ago. Moreover, few of these tools can address the chronic maldistribution of physicians. Parts of the Barer–Stoddart report addressing the chronic shortages faced by populations in underserved areas are as relevant today as they were 30 years ago.

Almost all physician bills are paid by provincial and territorial governments in Canada, and increases in past physician numbers have been estimated to contribute, on average, between 3.2% and 13.3% to provincial real per-capita health spending.[8] This spending depends on provincial cabinet decisions as well as major national policy shifts. Because the availability of public revenues depends on general levels of income and employment, provincial and territorial spending on health and physician services reflects changing economic conditions. As illustrated in Table 1, this creates a boom-and-bust cycle of health spending.

Since 2010, the Barer–Stoddart report has been somewhat less discussed, perhaps owing to the relatively rapid growth of the per-capita supply of physicians in Canada since that time, as shown in Figure 1: the supply is the highest it has ever been. Thus, even if shortages exist in some specialties and some areas of the country, any prospect of a potential surplus preoccupies both provincial and territorial governments and medical organizations, which have cooperated to restrict the supply of new physicians. Governments cut back on funding for residency positions and ultimately, a quota was placed on funded residency positions for international medical graduates; eventually, by 2012, less than 10% of slots were available to these graduates.[9,10]

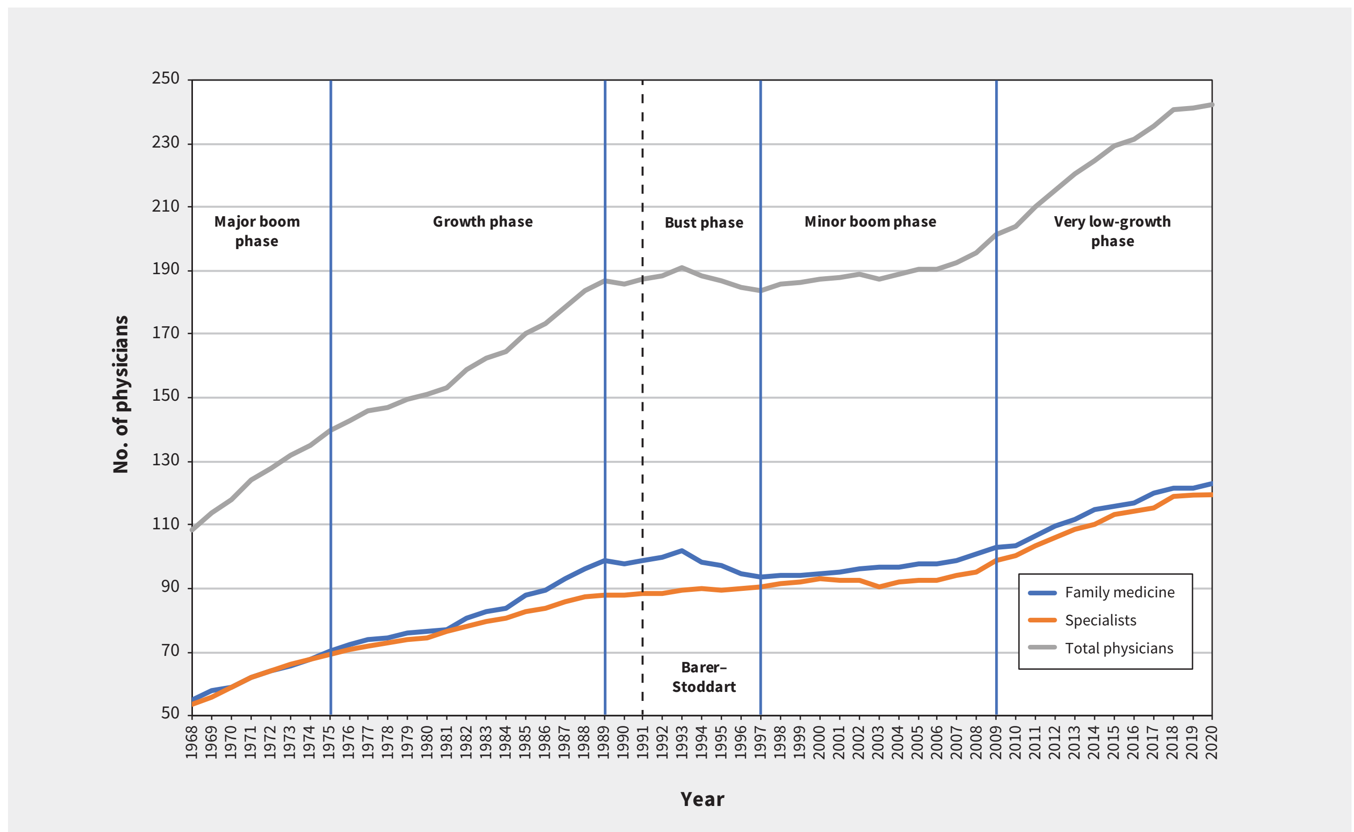

Figure 1: Physicians per 100 000 population, Canada 1968–2020, in context of 5 health policy and spending phases.

Even with the historical increase in the physician:patient ratio, it is still relatively lower in Canada than internationally. According to the 2021 Organisation for Economic Co-operation and Development (OECD) health statistics, Canada ranks 30th out of 38 OECD countries in physicians per 1000 population. Canada's rate of 2.74 physicians per 1000 is below that of the United Kingdom's rate of 2.98 (ranked 29th), but above that of the United States' rate of 2.64 (ranked 32nd).[11] Because these 2 countries are Canada's best comparators when it comes to the institutional structure of health human resources — including training and education — this ratio still seems in the ballpark. Many continental European countries have higher physician:patient ratios, but this is a product of having more physician-centred services and lower ratios for other health professionals, especially nurses.[12]

Barer and Stoddart cannot be blamed for subsequent physician shortages or disruptions, perceived or actual. That responsibility lies mainly with provincial and territorial governments, which selected 12 strategic directions but implemented only a minority of them. At the same time, it is important to recognize that the remaining directions, as well as a myriad of recommendations not dealt with in the Banff declaration, can be implemented by governments only through numerous nongovernmental bodies (medical schools, professional associations and regulatory bodies), and these organizations can easily stall governmental efforts. Still, it is worth revisiting these recommendations in the context of rapidly aging health sector human resources, the changing nature of medical practices, the advent of virtual care, and what is likely a permanent shift in physician work–life balance.

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