



Exploring the State of Physician Supply in Canada

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This study was commissioned by the Centre for Civic Engagement. The CCE is a non-partisan Canadian charity dedicated to conducting original research on public policy issues related to Canadian prosperity, productivity, and national flourishing. The CCE's research informs an active program of policy seminars, events, conferences, and lectures all aimed at providing the policy making community with actionable insights that encourage informed decision making on issues that matter to Canadians.

Introduction

Last month's Council of the Federation meeting dedicated a lot of attention to the "recruitment and retention of health care workers" as a key part of addressing broader health-care challenges. The notion of a major labour supply problem in Canadian health-care systems is commonly represented in the news media and popular conversation. Scarcely a week goes by without yet another story or study¹ about physician access and shortages in Canada's health system.

There's no doubt that family physicians play a crucial role² as the point of first contact and gatekeeper for health services, and it has been estimated that there are at least 6 million Canadians without access³ to a family or primary care physician, with some estimates⁴ being higher.

While Canada is not alone in having physician access issues, it remains that, among the ten high-income Commonwealth Fund Survey countries,⁵ adults in Canada recently reported the lowest rate of having a regular doctor at 86 percent, with New Zealand and the Netherlands at the top at 97 and 99 percent respectively.

Why Canadians continue to experience a health care system with shortages of physicians and other health care professionals is a health policy problem springing from a conjunction of forces that span provincial and federal policies towards health care and its funding, physician behaviour, and demographic and technological changes.

Yet there's also a risk here that we can overstate or at least misunderstand the problem. The truth is that in the case of physicians Canada currently has the *most* physicians it has ever had. The issue does not appear to be a shortage in the number of physicians per se, but rather the quantity and mix of output physicians produce relative to the incentives available.

This paper aims to assess whether Canada actually has a physician supply problem and provide an overview of the burdens that Canadian physicians face.

¹ Tingting Zhang, "The Doctor Dilemma: Improving Primary Care Access in Canada," *C.D. Howe Institute Commentary* no. 660 (2024).

² "88% of Canadians have a regular health provider but others struggle to access care," Canadian Institute for Health Information online, <https://www.cihi.ca/en/taking-the-pulse-a-snapshot-of-canadian-health-care-2023/88-of-canadians-have-a-regular-health>.

³ John Paul Tasker, "Meet some of the 6 million Canadians who don't have a family doctor," *cbc.ca. news*, February 18, 2024, <https://www.cbc.ca/news/politics/meet-the-canadians-without-a-family-doctor-1.7116475>.

⁴ Diana Duong and Lauren Vogel, "National survey highlights worsening primary care access," *CMAJ* 195 no. 16 (2023).

⁵ Evan D. Gumas, et al. "Finger on the Pulse: The State of Primary Care in the U.S. and Nine Other Countries." *The Commonwealth Fund - Improving Health Care Quality* (2024). <https://www.commonwealthfund.org/publications/issue-briefs/2024/mar/finger-on-pulse-primary-care-us-nine-countries>.

Does Canada Have a Physician Shortage Problem?

The basic dimensions of the problem are well-established. Nationally, a Canadian Medical Association Journal (CMAJ) report has stated that as many as one-fifth of Canadians⁶ are without a primary care physician, but there is variation⁷ across Canada's regions, with 13 percent of Ontarians saying they are without a family physician while 27 percent of people in British Columbia and 31 percent in Atlantic Canada say they don't have one.

These numbers have increased rather dramatically since the pandemic, given that in 2019, Statistics Canada⁸ estimated there were 4.5 million without a family physician. However, this is a long-standing problem⁹ going as far back as 2005 when 14 percent of Canadians – at the time 3.5 million people – reported having no family physician. Moreover, even with a family doctor, large proportions of Canadians are reporting difficulty in getting appointments,¹⁰ as 29 percent of those with a physician said it was hard to get an appointment.

In trying to understand the issues affecting physician supply and access, the first step is to look at physician numbers. When it comes to international comparisons, Canada ranks near the bottom among the OECD countries¹¹ for physicians per 1,000 population. In 2021 (See **Figure 1**), the number of doctors in OECD member countries ranged from 2.5 or fewer per 1,000 population in Türkiye, Colombia and Mexico to over 5 per 1,000 in Norway, Austria, Portugal, and Greece.

Of 47 countries compared by the OECD in 2021, Canada ranked 35th at 2.9 physicians per 1,000 population. Canada is actually above the United States and Japan at 2.7 and 2.6 per 1,000, respectively, but well below countries such as Italy at 4.1 or Denmark at 4.4. There are, however, some caveats to these numbers. For example, the numbers in Portugal and Greece are overestimates as they include all doctors licensed to practise, not just those actively practising. As well, while many European countries have higher physician per capita numbers, this is also a function of health systems built around more physician-centred services¹² with lower ratios for other health professionals such as nurses.

⁶ Tara Kiran, et al. "Public experiences and perspectives of primary care in Canada: results from a cross-sectional survey." *CMAJ* 196, no. 19 (2024).

⁷ "Access to Healthcare," *Statistics Canada* online, August 13, 2023. <https://www150.statcan.gc.ca/n1/pub/82-570-x/2023001/section3-eng.htm>.

⁸ "Primary health care providers, 2019," *Statistics Canada* online, October 22, 2020. <https://www150.statcan.gc.ca/n1/pub/82-625-x/2020001/article/00004-eng.htm>.

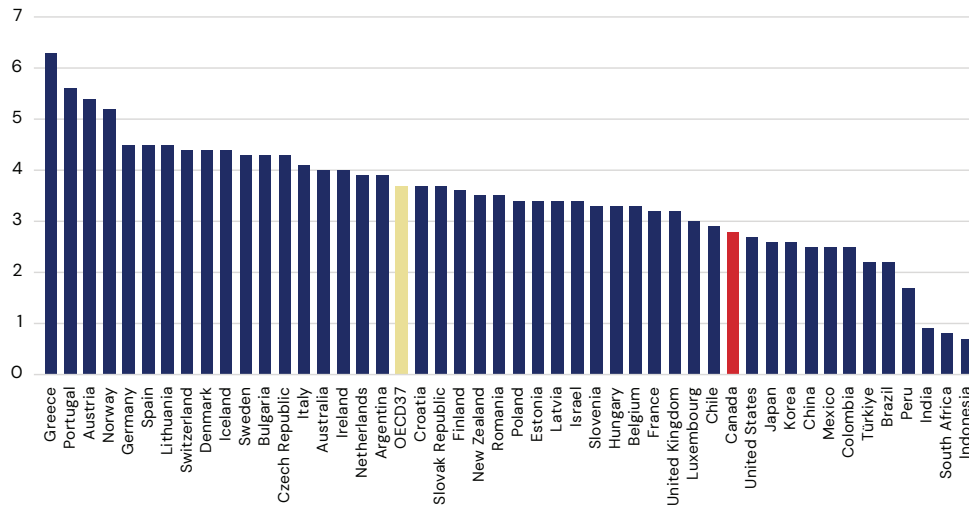
⁹ "Access to a regular family physician," *Statistics Canada* online, September 11, 2014. <https://www150.statcan.gc.ca/t1/tbl/en/tv.action?pid=1310048401>.

¹⁰ Katie Dangerfield, "Half of Canadians do not have a doctor, or battle for appointments: survey," *Global News*, August 17, 2023. <https://globalnews.ca/news/9901922/canadians-family-doctor-shortage-cma-survey/>.

¹¹ "Doctors," *OECD* online, 2024. <https://www.oecd.org/en/data/indicators/doctors.html>.

¹² Gregory Marchildon and Livio Di Matteo, "Physician workforce planning and boom-bust economic cycles: a retrospective on the Barer-Stoddart report," *CMAJ* 195, no. 4 (2023).

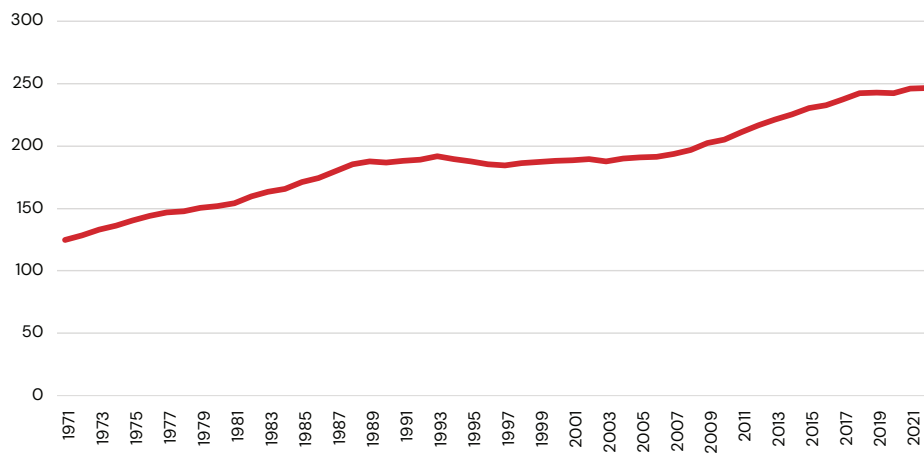
Figure 1: Physicians Per 1,000 Population in 2021



Source: OECD Health at a Glance, 2023

Another point to make is that while Canada ranks low in physicians per capita, it has seen substantial growth in numbers over the last decade. When it comes to the percentage increase in physicians per 1,000, Canada is mid-ranked across these 47 OECD comparison countries in the increase since 2011. Yet, if one looks at physician numbers in Canada over the longer term, Canada has the most physicians per capita that it has ever had. **Figure 2** plots the total number of physicians per 100,000 population in Canada from 1971 to 2022, revealing three distinct phases. First, there was a period of increase from 1971 to 1993 that saw physicians per 100,000 rising from 125 to 192 – a 54 percent increase. From 1993 to 2007, numbers remained flat, averaging 189. From 2007 to 2022, they again increased from 194 to 247 – an increase of 27 percent.

Figure 2: Total Physicians Per 100,000 Population, Canada, 1971 to 2022

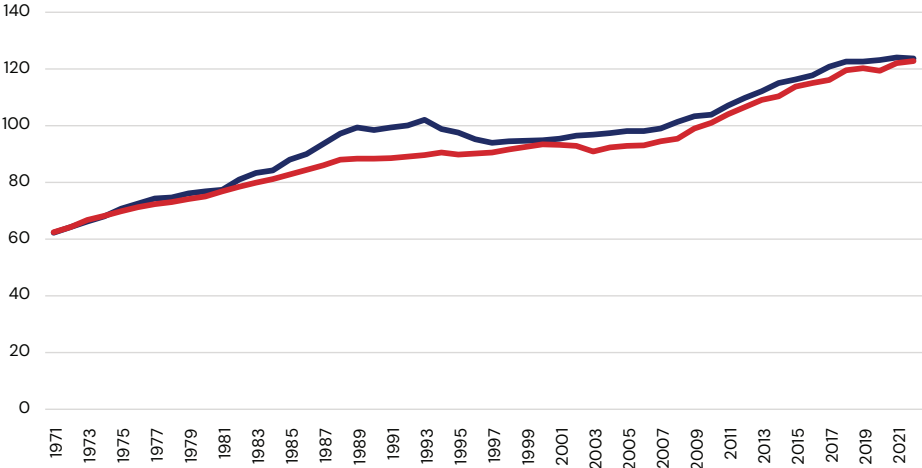


Source: Canadian Institute for Health Information. Supply, Distribution and Migration of Physicians in Canada, 2022 – Historical Data. Ottawa, ON: CIHI; 2023.

It should also be noted that these are national figures, and there are variations in physician supply not only by province and territory, but across rural and urban areas. For example, in 2022, total physicians per 100,000 population ranged from highs of 270 per 100,000 in British Columbia and Nova Scotia to lows of 215 per 100,000 in Prince Edward Island and Saskatchewan, respectively. Then there are the three territories that range from a high of 203 in The Yukon to a low of 72 in Nunavut.

Figure 3 shows that while these trends have marked both family and specialist physicians, it's family physicians that appear to have taken the greater blow in the 1993 to 2007 period. This decline came after a period when they increased faster than specialist physicians. From 1971 to 1993, family physicians per 100,000 population increased by 64 percent – from 62 to 102 per 100,000 – while specialist physicians grew only 45 percent – from 62 to 90 per 100,000. From 1993 to 2007, specialist physicians per 100,000 increased slightly while family physicians declined. Since 2007, specialist physicians per 100,000 grew by 30 percent, whereas family physicians increased by 25 percent, with the numbers now being nearly on par at 124 and 123 per 100,000, respectively.

Figure 3: Family and Specialist Physicians Per 100,000 Population, Canada, 1971 to 2022



Source: Canadian Institute for Health Information. Supply, Distribution and Migration of Physicians in Canada, 2022 – Historical Data. Ottawa, ON: CIHI; 2023.

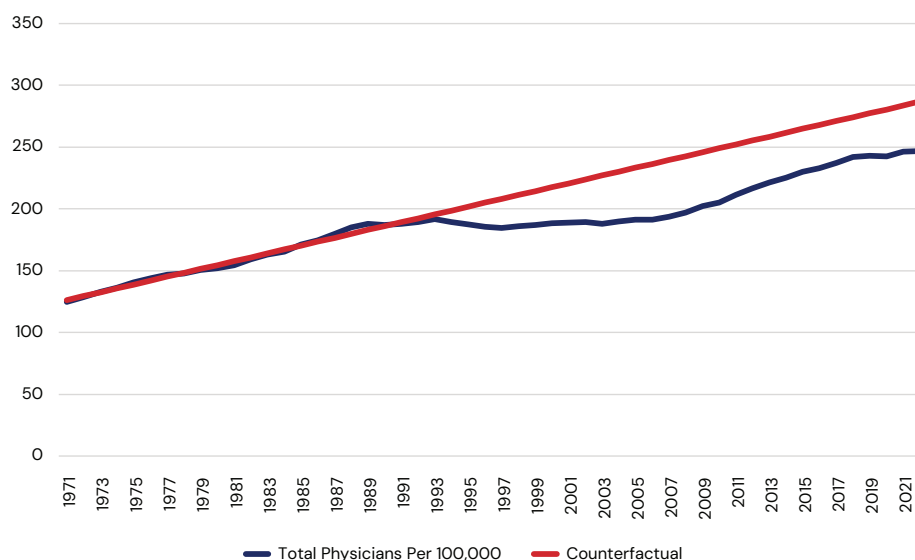
The post-1993 decline, particularly amongst family physicians, has often been attributed to the implementation of the Barer–Stoddart Report.¹³ In the wake of slowing economic growth and rising health expenditures, provincial health ministers commissioned health economists Morris Barer and Greg Stoddart in 1990 to produce a report on medical resource policy. They delivered back in 1991 with a massive report on medical training and practices that recommended, among other things, reducing medical school entry class size by 10 percent. The report also recommended reforming physician payment methods away from fee-for-service where possible, increasing the use of alternative service delivery models, and initiatives to boost physician access in rural communities. Physicians in that era came to be seen as a factor in rising health expenditures based on theories of supplier-induced demand that argued as gatekeepers to the health care system, physicians could essentially create their own demand for services.

¹³ Ibid.

The result of a reduction in medical school admissions was eventually physician shortages and care disruptions in the 1990s and beyond. The responsibility for implementing the report rested with provincial governments, which focused mainly on reducing physician supply without the additional human resource measures the report suggested. All this occurred against the backdrop of federal health transfer reforms that brought about the Canada Health Transfer in the wake of the federal fiscal crisis of the 1990s.

Indeed, one can construct a counterfactual physician supply for Canada by running a regression of total physicians per 100,000 population from the period 1971 to 1993 and then using the coefficients to project physician numbers to the present, as shown in **Figure 4**. The divergence in physician supply occurred after 1993, and even with increases in medical school enrollment that began after 2005, the long-term effects on supply are apparent as by 2022, physicians per 100,000 stood at 247, while if they had continued to increase at the pre-1993 trend – all other things given – the number would be 16 percent higher at 287. Put another way, there could presently be approximately 16,000 more physicians on top of the current 96,000 physicians in Canada if growth had continued at pre-1993 rates.

Figure 4: Total Physicians Per 100,000, Actual Versus Counterfactual, Canada, 1971 to 2022



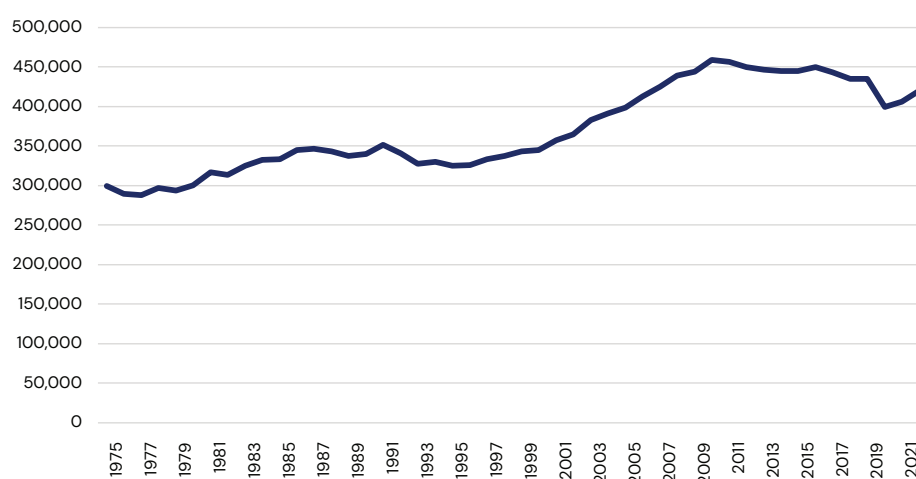
In the end, physicians are viewed not only as health service providers by provincial governments but also as cost centers and a source of expenditure increases and, ultimately, budgetary pressures. While governments seek to meet the need for health care services through physicians, the supply of physicians is also regulated by governments through medical school admissions and licensing, and payment systems have sought to ensure efficiencies in expenditures.

Governments perceive physicians as a major cost driver despite evidence¹⁴ that while “physician numbers are a positive and significant driver of provincial government health care spending,” it remains that “the overall contribution to real per capita health spending is relatively small for most provinces”. Nevertheless, provincial-territorial government spending per physician, after adjusting for inflation, has actually been in decline for over a decade.

¹⁴ Livio Di Matteo. “Physician numbers as a driver of provincial government health spending in Canadian health policy,” *Health Policy* 115, no. 1 (2014): 18–35.

Figure 5 presents a plot of real provincial–territorial government spending per physician (in 2020\$), which peaked in 2010 and has since declined by over 8 percent – from \$459,000 to \$420,000. This decline reflects the move by many provincial governments since the Great Recession period to hold down fee increases and cap payments to physicians, which may, in turn, affect their labour supply behaviour.¹⁵ In lieu of fee increases,¹⁶ provincial governments have encouraged their physicians to incorporate, given the more favourable corporate tax rate regime, but recent changes to federal capital gains taxation¹⁷ inclusion rates have complicated that strategy. However, part of this spending decline is also a function of physicians seeing fewer patients as a result of two other reasons: first, physicians have been working fewer hours¹⁸ over time and of the remaining time, a substantial portion is filled with paperwork.¹⁹

Figure 5: Provincial Territorial Government Real Physician Expenditure Per Physician (\$2020), Canada, 1975 to 2022



Source: CIHI NHEX, 2023

¹⁵ Sisira Sarma, Rose Anne Devlin, Bachir Belhadji and Amardeep Thind, “Does the way physicians are paid influence the way they practice? The case of Canadian family physicians’ work activity,” *Health Policy* 98, no. 2–3 (2010): 203–217.

¹⁶ Robyn Urback, “Canada should give doctors every incentive to stay. By hiking capital gains, it’s doing the opposite,” *The Globe and Mail*, June 14, 2024. <https://www.theglobeandmail.com/opinion/article-canada-should-give-doctors-every-incentive-to-stay-by-hiking-capital/>.

¹⁷ “The capital gains tax proposal will hurt health care in Canada. Here’s how the CMA is advocating for change,” *Canadian Medical Association* online, May 30, 2024, <https://www.cma.ca/latest-stories/capital-gains-tax-proposal-will-hurt-health-care-canada-heres-how-cma-advocating-change>.

¹⁸ Boris Kralj, Rabiul Islam and Arthur Sweetman, “Open Access Long-term trends in the work hours of physicians in Canada,” *CMAJ* 196, no. 11 (2024).

¹⁹ Alchad Alegbeh, and Laura Jones, “Patients before paperwork.” *Canadian Federation of Independent Business* (2023).

Growing Pressures on Physician Services

Access and availability of physician services are affected by demand and supply factors. These are rooted in the structure of our health care system, and changing social, economic, and demographic forces. The demand factors include increasing utilization of services per capita. There is also a growing population as Canada's population has soared past 40 million from 35 million a decade ago. Then there are the increased demands from an aging population as the proportion over age 65 grows in conjunction with rising needs in mental health, particularly amongst younger populations. Technological change also offers new and better procedures – witness, for example, the improvements in cataract care and knee and hip replacements – that, in turn, can foster enhanced demand and increased expectations.

While physician supply has increased, many current physicians are reaching retirement age and leaving the workforce, counteracting the effects of increased domestic medical school graduates. It has been estimated that one in six²⁰ family doctors are nearing retirement age. While some of this could be counteracted by recruiting more international medical school graduates, there is again a long process for accreditation of these graduates and a shortage of residency positions for them, thereby restricting their entry into the physician workforce. As well, even when more family physicians are trained and graduated, a larger proportion don't go into traditional primary care²¹ but rather go into other fields,²² such as sports medicine, work solely in hospital emergency rooms, or anesthesiology, or work part-time.²³ Part of this is a function of changing preferences, and part is due to monetary incentives²⁴ given the costs and administrative burdens of running family practices. Obviously, financial and market incentives are a factor if physicians pursue work where they can earn more than seeing more patients as a family physician where fees are capped.

As well, on average, physicians are working less than they did a decade ago as more seek better work-life balances. Indeed, in a recent study by Boris Kralj,²⁵ Rabiul Islam and Arthur Sweetman of McMaster University, the authors used Statistics Canada labour force data to analyze the average weekly hours worked by physicians over the 1987–2021 period. Overall, weekly physician work hours remained stable from 1987 until 1997, after which they declined—average weekly hours decreased by 6.9 hours from 52.8 in 1987–1991 to 45.9 in 2017–2021. Among male physicians, work hours declined notably after 1997, while those of female physicians remained relatively stable at around 45 per week. Hours worked by married physicians also declined significantly, amounting to 7.4 fewer hours per week, while unmarried physicians

²⁰ Karen Howlett, "One in six family doctors are near retirement age, leaving millions of Canadians in health care limbo." *The Globe and Mail*, December 27, 2022, <https://www.theglobeandmail.com/canada/article-family-doctors-retiring/>.

²¹ "Changes in practice patterns of family physicians in Canada," *Canadian Institute for Health Information*, March 26, 2024, <https://www.cihi.ca/en/changes-in-practice-patterns-of-family-physicians-in-canada>.

²² Amina Zafar, "Can't find a family doctor? It might be because they're busy doing other specialties, report finds," *cbc.ca news*, March 26, 2024, <https://www.cbc.ca/news/health/family-medicine-specialties-cihi-1.7155269>.

²³ "Part-time doctors defend their work: 'It doesn't make us any less valuable,'" *cbc.ca radio*, February 22, 2019, <https://www.cbc.ca/radio/whitecoat/part-time-doctors-defend-their-work-it-doesn-t-make-us-any-less-valuable-1.5029855>.

²⁴ Mike Crawley, "Want more family doctors in Ontario? Pay them better, say physicians." *cbc.ca news*, March 11, 2024, <https://www.cbc.ca/news/canada/toronto/ontario-family-doctors-pay-compensation-ohip-billing-fees-1.7137716>.

²⁵ Boris Kralj, Rabiul Islam and Arthur Sweetman, "Long-term trends in the work hours of physicians in Canada."

displayed a decline of 2.2 hours. When population aging²⁶ and population growth are accounted for in conjunction with declining work hours, it becomes apparent that boosting effective physician supply is more than simply increasing physicians per 100,000 population.

While physicians are working fewer hours, they are also experiencing higher administrative burdens²⁷ given the highly regulated nature of provincial government health systems that reduce patient-centred working time and the explosion of technology that has expanded health information. Governments and health bureaucracies ultimately determine what public health services should be, what procedures are necessary or unnecessary, and what the budgetary envelope will be. The allocation of public money requires accountability, and this desire for efficiency, combined with new technology, has created an exponential increase in paperwork and administrative costs for physicians.

According to the Canadian Medical Association (CMA),²⁸ the time spent on unnecessary administrative work by physicians, which takes up 18.5 million hours per year and is equivalent to 55.6 million patient visits per year, could be streamlined by governments. For example, it takes most physicians 21–30 minutes to fill out a typical federal disability form. Indeed, suggestions for reducing the administrative burden on physicians include simplifying, reducing or eliminating federal forms, eliminating unnecessary sick notes and improving health information systems to make data clear and accessible.

This administrative burden generates burnout,²⁹ especially amongst family practitioners, more than half of whom say they spend excessive amounts of time on electronic medical records and forms at home. Indeed, the financial burden for family practitioners of hiring staff to help deal with their office management and paperwork burden³⁰ is another disincentive to new physicians entering family practice. Generally speaking, a family practice is a small business with rising costs and expenses, but physicians have no control over the price³¹ of their services while simply increasing the quantity of patients they see runs up against reducing time per patient, rising paperwork burdens and work-life balance concerns. Adding to all the burnout is, of course, the aftermath of COVID-19, which saw the delay of diagnoses and surgeries and has generated a large workload of catching up.

²⁶ Rabiul Islam Boris Kralj and Arthur Sweetman, "Physician workforce planning in Canada: the importance of accounting for population aging and changing physician hours of work," *CMAJ* 195, no. 9 (2023).

²⁷ Nicola Seguin, "Canadian doctors spend millions of hours on unnecessary paperwork each year: report," *cbc.ca news*, January 30, 2023, <https://www.cbc.ca/news/canada/nova-scotia/canadian-doctors-millions-hours-paperwork-1.6728529>.

²⁸ "Administrative burden is driving physician burnout, and puts access to care at risk," *Canadian Medical Association* online, 2024, <https://www.cma.ca/our-focus/administrative-burden/facts>.

²⁹ "Physical Wellness Hub – Burnout," *Canadian Medical Association* online, 2024, <https://www.cma.ca/physician-wellness-hub/topics/burnout>.

³⁰ Colin Leslie, "The burden of paperwork," *The Medical Post* (2018): 16–20.

³¹ Mike Crawley, "Want more family doctors in Ontario? Pay them better, say physicians."

Key Takeaways

The physician supply issue, in the end, is a conundrum. Is there a shortage of physicians? Borrowing words from that quintessential bureaucrat, Sir Humphrey Appleby,³² the answer is both yes and no, if you forgive the expression. In 1971, there were 125 physicians per 100,000 population, and their services seemed abundant. In 2022, there are 247 physicians per 100,000, and there are issues of scarcity and access.

While there are more of both family and specialist physicians, a host of reasons have reduced their effective supply of services even as their numbers have expanded and total spending on health, both per capita and as a share of GDP, has grown. To this can be added a desire for better work-life balance by physicians in the wake of the pandemic's more stressful work environment. Even when there are more physicians, an increasing proportion prefer to specialize, and even if they remain family physicians, they often do other gigs ranging from sports medicine to Botox either because of lifestyle considerations or financial incentives.

One can increase the number of physicians by boosting medical school enrollments further and licensing more international medical graduates, but this is no guarantee that they will go into family practice. Moreover, this takes time and ultimately runs up against provincial government budgetary constraints, given every new physician is seen as a billing number and cost center.

Of course, one might venture that if governments don't want to spend more on physicians or reduce their administrative burdens, the public should be allowed to spend their own money on attaining the physician services they need. Here, we come up against the politics of Canadian health care whereby there is a commitment to public health care and the belief that more private care creates an inequitable and unfair two-tier health care even as increasing numbers of Canadians experience the unfairness of not having access to the physician services they expect.

Provincial governments essentially ration access to public medical care but don't make it easy to spend your own money on health care unless you choose to cross the border into the United States – a result that is a version of two-tier care we seem prepared to live with.

What is to be done? We have been doing pretty much the same thing for the last thirty years. Problems brew for a long time and then periodically rear their head as health crises of waiting lists, crowded emergency departments, and shortages of physicians and other health professionals fester.

These events are then punctuated by infusions of public money that provide a short-term solution and a return to the status quo, with US health care providing an occasional safety valve for those with the financial means and ability to travel. Such a system worked adequately in the face of measured and slow changes in health care needs and demand, and a relatively younger population, but the pandemic exacerbated the issues.

In the case of physician numbers, when combined with a pickup in the pace of demographic and technological change, increased utilization and changes in physician work practices, the problems have become magnified. The pace of change has picked up, but our ability to cope with change has not. It's time for some new thinking from governments.

³² André Cunha, "Why the UK is in the EU."

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